Western Technologies Inc.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) ASBESTOS

CURIEL PRIMARY SCHOOL – CAMPUS ROOF RESTORATIONS AND BUILDING WEATHERIZATION PROJECT
1000 North Curiel Street
Eloy, Arizona
WT Reference No. 2188JH269

PREPARED FOR:
Eloy Elementary School District
1011 North Sunshine Boulevard
Eloy, Arizona 85131

Attn: Edward Sauceda and Ruby James

August 10, 2018

Alexander Smith
Environmental Scientist

Vicky L. Aviles, AEP, CIAQM
Environmental Project Manager/Principal

SURVEY INFORMATION SUMMARY

Consulting Firm:	Western Technologies Inc. 3737 East Broadway Road Phoenix, Arizona 85040 (602) 437-3737
Current Property Owner:	Pinal County School District 11 Eloy
Site Address:	1000 North Curiel Street Eloy, Arizona
Assessor's Parcel Number (APN):	405051750
Facility Description:	Elementary School
Age of Facility:	Building 5 – 1953 Building 6 – 1953 Building 7 – 1953 Building 8 – 1953 Building 9 – 1953 Building 10 – 1953 Building 11 – 1953 Building 12 – 1953 Building 13 – 1953 Building 14 – 1987 Gymnasium – 2005
Date of Survey:	August 6, 2018
EPA Accredited Inspector:	Alexander Smith Theodore Stude
Certification Number & Expiration Date:	G7791 Exp. 11-08-2018 (Smith) G8459 Exp. 04-06-2019 (Stude)
Training Facility:	The Asbestos Institute (TAI)
Number of Samples & Date Analyzed:	<u>Asbestos (PLM)</u> Building 5 – 18 (8/8/2018) Building 6 – 18 (8/9/2018) Building 7 – 12 (8/9/2018) Building 8 – 18 (8/8/2018) Building 9 – 15 (8/8/2018) Building 10 – 18 (8/8/2018) Building 11 – 15 (8/8/2018)

	Building 12 – 21 (8/8/2018) Building 13 – 15 (8/8/2018) Building 14 – 21 (8/8/2018) Gymnasium – 24 (8/8/2018)
Methods of Analysis:	Polarized Light Microscopy (PLM) EPA 600/R-93/116 Method – Asbestos
Laboratory:	Fiberquant Analytical Services (PLM) 5025 South 33rd Street Phoenix, Arizona 85040
National Voluntary Laboratory Accreditation Program (NVLAP) Endorsement:	101031-0 (Fiberquant)
Arizona Department of Health Services (AZDHS) Laboratory License:	AZ0633 (Fiberquant) & AZ0805 (Accutest)
Asbestos Containing Building Materials (ACBM) Identified:	<u>Building 5 (RPA Building H)</u> None
	<u>Building 6 (RPA Building A)</u> Sealant @ Roof Penetrations, ~10 s.f.
	<u>Building 7 (RPA Building A)</u> Sealant @ Roof Penetrations, ~10 s.f.
	<u>Building 8 (RPA Building B)</u> Sealant @ Roof Penetrations, ~10 s.f.
	<u>Building 9 (RPA Building B)</u> Sealant for Roof Penetrations, ~10 s.f.
	<u>Building 10 (RPA Building C)</u> Sealant @ Roof Penetrations, ~10 s.f.
	<u>Building 11 (RPA Building C)</u> Sealant @ Roof Penetrations, ~10 s.f.
	<u>Building 12 (RPA Building D)</u> Sealant @ Roof Penetrations, ~10 s.f.
	<u>Building 13 (RPA Building D)</u> Sealant @ Roof Penetrations, ~10 s.f.

Building 14 (RPA Building F)
None

Gymnasium (RPA Building G)
None

NOTE: This survey is limited to the sampling and analysis only of the materials identified within this report. Other materials located at the site that were not included in this survey should be assumed to be asbestos-containing until sampled to prove they are not.

August 10, 2018

Eloy Elementary School District
1011 North Sunshine Boulevard
Eloy, Arizona 85131

Attn: Edward Sauceda and Ruby James

Re: Limited NESHAP Asbestos Survey WT Job No. 2188JH269
Campus Roof Restorations and Building Weatherization Project
Curiel Elementary School
1000 North Curiel Street
Eloy, Arizona

INTRODUCTION

Western Technologies Inc. (WT) presents the results of the NESHAP asbestos survey conducted at the above referenced Property. WT was authorized by Edward Sauceda and Ruby James with Eloy Elementary School District to perform these services according to the scope of work under WT's Proposal/Agreement for Professional Services (WT Ref. No. 2188PH436), dated July 13, 2018. The asbestos survey included identifying, quantifying, mapping, and sampling suspect asbestos containing building materials (ACBMs) following the National Emission Standards for Hazardous Air Pollutants (NESHAP) and the Occupational Safety and Health Administration (OSHA) protocol for the identification of ACBM prior to disturbance by planned demolitions and renovations of the structures on the Property. The scope of work included the roof systems and exterior wall components of eleven structures that may be disturbed by the planned renovation.

BUILDING DESCRIPTIONS

The EPA requires each structure to be inspected and sampled for asbestos independent of other structures. The EPA identifies a structure based on its footprint not the roofline. Eight of the structures located on this campus are separated by a breezeway and share the same roofline. Therefore, WT has conducted the asbestos inspection independent for each structure based on the footprint for walls but has determined the roofs to be homogeneous.

Building ID on WT Figure A – Labels given to the 11 buildings on Figure A, attached to this report.

Building ID on RPA Plans – Labels given to the 11 buildings on plans by Robert Polcar Architects, Inc (RPA) for Campus Roof Restorations and Building Weatherizations, Project No. 110411103-9999-008-BRG, dated 08/XX/2018.

Building Use – The observed use of the 11 buildings during the inspection.

Building ID on WT Figure A	Building ID on RPA Plans	Building Use
Building 5	Building "H"	Administration Offices
Building 6	Building "A" (west of breezeway)	Classrooms 5, 6, 7, and Restrooms
Building 7	Building "A" (east of breezeway)	Classrooms 1, 2, 3, and 4
Building 8	Building "B" (west of breezeway)	Classrooms 12, 13, 14, and Restrooms
Building 9	Building "B" (east of breezeway)	Classrooms 8, 9, 10, and 11
Building 10	Building "C" (west of breezeway)	Classrooms 19, 20, 21, and Restrooms
Building 11	Building "C" (east of breezeway)	Classrooms 15, 16, 17, and 18
Building 12	Building "D" (west of breezeway)	Classrooms 24, 25, 26, and Restrooms
Building 13	Building "D" (east of breezeway)	Classrooms 22 and 23, Library, and Teacher's Lounge
Building 14	Building "F"	Cafeteria, Kitchen, and Restrooms
Gymnasium	Building "G"	Gymnasium and Restrooms

ASBESTOS SURVEY

Alexander Smith and Theodore Stude, EPA accredited asbestos inspectors with WT, conducted the survey August 6, 2018. The Property included eleven buildings. The survey was limited to the roofs and exterior walls of eleven buildings on the Property as mentioned above in the scope of the project. WT prepared an aerial photograph, which is included at the end of this report (Figure A), to identify the buildings that were surveyed. An aerial photograph was also prepared for each of the buildings on the Property that were included in the survey depicted on Figures 1 through 11 in Appendix A through K of this report.

Building 5 (RPA Building H)

General construction of the exterior of the building consisted of a wooden roof deck and framing, concrete masonry unit exterior walls, on a concrete floor slab. The area of the building was approximately 2,700 square feet. There were two breezeways to the west of the building.

WT collected 18 samples of 6 suspect homogeneous materials from the exterior of the building to include: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant, and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, none were identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material samples collected, review Table 1 and/or the inspector's Asbestos Survey Sample Logs located in Appendix A of this report.

Building 6 (RPA Building A)

General construction of the exterior of the building consisted of a wooden roof deck and framing, concrete masonry unit exterior walls, on a concrete floor slab. The area of the building was approximately 4,320 square feet. The building had a shared roof with Building 7 (RPA Building A) with a breezeway between the two buildings.

WT collected 18 samples of 6 suspect homogeneous materials from the exterior of the building that included: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant, and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, one was identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material samples collected, review Table 2 and/or the inspector's Asbestos Survey Sample Logs located in Appendix B of this report.

Building 7 (RPA Building A)

General construction of the exterior of the building consisted of a wooden roof deck and framing, masonry exterior walls, on a concrete floor slab. The area of the building was approximately 4,750 square feet. The building had a shared roof with Building 6 (RPA Building A) with a breezeway between the two buildings.

WT collected 12 samples of 4 suspect homogeneous materials from the exterior of the building which included: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant, and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, one was identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material samples collected, review Table 3 and/or the inspector's Asbestos Survey Sample Logs located in Appendix C of this report.

Building 8 (RPA Building B)

General construction of the exterior of the building consisted of a wooden roof deck and framing, masonry exterior walls, on a concrete floor slab. The area of the building was approximately 4,320 square feet. The building had a shared roof with Building 9 (RPA Building B) with a breezeway between the two buildings.

WT collected 18 samples of 6 suspect homogeneous materials from the exterior of the building which included: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant, and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, one was identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material

samples collected, review Table 4 and/or the inspector's Asbestos Survey Sample Logs located in Appendix D of this report.

Building 9 (RPA Building B)

General construction of the exterior of the building consisted of a wooden roof deck and framing, masonry exterior walls, on a concrete floor slab. The area of the building was approximately 4,750 square feet. The building had a shared roof with Building 8 (RPA Building B) with a breezeway between the two buildings.

WT collected 15 samples of 5 suspect homogeneous materials from the exterior of the building which included: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant, and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, one was identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material samples collected, review Table 5 and/or the inspector's Asbestos Survey Sample Logs located in Appendix E of this report.

Building 10 (RPA Building C)

General construction of the exterior of the building consisted of a metal roof and wood framing, masonry exterior walls, on a concrete floor slab. The area of the building was approximately 4,320 square feet. The building had a shared roof with Building 11 (RPA Building C) with a breezeway between the two buildings.

WT collected 18 samples of 6 suspect homogeneous materials from the exterior of the building which included: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant, and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, one was identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material samples collected, review Table 6 and/or the inspector's Asbestos Survey Sample Logs located in Appendix F of this report.

Building 11 (RPA Building C)

General construction of the exterior of the building consisted of a wooden roof deck and framing, masonry exterior walls, on a concrete floor slab. The area of the building was approximately 4,750 square feet. The building had a shared roof with Building 10 (RPA Building C) with a breezeway between the two buildings.

WT collected 15 samples of 5 suspect homogeneous materials from the exterior of the building materials which included: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant,

and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, one was identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material samples collected, review Table 7 and/or the inspector's Asbestos Survey Sample Logs located in Appendix G of this report.

Building 12 (RPA Building D)

General construction of the exterior of the building consisted of a wooden roof deck and framing, masonry exterior walls, on a concrete floor slab. The area of the building was approximately 4,320 square feet. The building had a shared roof with Building 13 (RPA Building D) with a breezeway between the two buildings.

WT collected 21 samples of 7 suspect homogeneous materials from the exterior of the building which included: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant, and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, one was identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material samples collected, review Table 8 and/or the inspector's Asbestos Survey Sample Logs located in Appendix H of this report.

Building 13 (RPA Building D)

General construction of the exterior of the building consisted of a wooden roof deck and framing, concrete masonry unit exterior walls, on a concrete floor slab. The area of the building was approximately 4,750 square feet. The building had a shared roof with Building 12 (RPA Building D) with a breezeway between the two buildings.

WT collected 15 samples of 5 suspect homogeneous materials from the exterior of the building which included: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant, and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, one was identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material samples collected, review Table 9 and/or the inspector's Asbestos Survey Sample Logs located in Appendix I of this report.

Building 14 (RPA Building F)

General construction of the exterior of the building consisted of a wooden roof deck and framing, masonry exterior walls, on a concrete slab. The area of the building was approximately 5,970 square feet.

WT collected 21 samples of 7 suspect homogeneous materials from the exterior of the building which included: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant, and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, none were identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material samples collected, review Table 11 and/or the inspector's Asbestos Survey Sample Logs located in Appendix K of this report.

Gymnasium (RPA Building G)

General construction of the exterior of the building consisted of a wooden roof deck and framing, masonry walls, on a concrete floor slab. The area of the building was approximately 4,380 square feet.

WT collected 24 samples of 8 suspect homogeneous materials from the exterior of the building which included: roof systems (asphalt shingle, felt, rolled asphalt, penetration sealant, and block and mortar wall materials. Sample collection locations were determined by measuring from the corners of the functional spaces. Of the materials sampled, none were identified by laboratory analysis to contain greater than one-percent asbestos by weight. For a record of suspect material samples collected, review Table 13 and/or the inspector's Asbestos Survey Sample Logs located in Appendix M of this report.

Laboratory Analysis

Fiberquant Analytical Services (Fiberquant) analyzed the material samples. Fiberquant is an NVLAP-accredited laboratory located in Phoenix, Arizona. Single layer sample analysis was performed in accordance with the EPA's recommended Interim Method 600/R-93/116 for the determination of asbestos in bulk sampling using Polarized Light Microscopy (PLM) with dispersion staining and asbestos analysis via Polarized Microscopy, Qualitative.

SUMMARY OF ASBESTOS CONTAINING BUILDING MATERIALS

Building 6 (RPA Building A)
Sealant for Roof Penetrations, approximately 10 square feet

Building 7 (RPA Building A)
Sealant for Roof Penetrations, approximately 10 square feet

Building 8 (RPA Building B)
Sealant for Roof Penetrations, approximately 10 square feet

Building 9 (RPA Building B)
Sealant for Roof Penetrations, approximately 10 square feet

Building 10 (RPA Building C)
Sealant for Roof Penetrations, approximately 10 square feet

Building 11 (RPA Building C)
Sealant for Roof Penetrations, approximately 10 square feet

Building 12 (RPA Building D)
Sealant for Roof Penetrations, approximately 10 square feet

Building 13 (RPA Building D)
Sealant for Roof Penetrations, approximately 10 square feet

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) CLASSIFICATION & NESHAP CATEGORY FOR ABATEMENT

The following paragraphs are based on our understanding of the current regulations as interpreted by our local regulators at the time of preparation of this report. The following provides classifications and categories used to describe the regulatory requirements for the planned abatement of homogeneous materials. The OSHA classifications provide details for the personal protective equipment and engineering controls needed for abatement of these materials. The Maricopa County NESHAP requires 10-day notification with associated fees prior to the disturbance of regulated asbestos containing materials that quantify 160 square feet and/or 260 linear feet or greater than or equal to 35 cubic feet. Removal methods selected by the Owner can result in variances to the following:

Roof Penetration Sealant

The asbestos containing roof sealant is a non-friable material that appeared in good condition at the time of the inspection. Removal of the roof sealant is deregulated by OSHA and categorized by NESHAP as Category II, non-friable. These materials will not become friable during removal and do not trigger a NESHAP notification.

RECOMMENDATIONS

The following recommendations are based on WT's opinion and/or observations, and our understanding to the applicable Federal, State and Local regulations for asbestos.

It is recommended WT be contacted if additional suspect ACBMs are encountered during the course of the renovation project.

LIMITATIONS

Conditions can exist within structures and below the ground surface that are not apparent visually or disclosed by sampling data. This study is limited to the conditions expressly disclosed in this report, and it does not represent the assessment or absence of any other conditions on or affecting the Property. WT's findings are based on the assumption that the sampling locations, and the resulting data, are representative of assessed conditions. WT's interpretation, discussion and opinions of the results obtained from the referenced methods, observed conditions, and tested samples are applicable only to the specifically tested locations at the times stated herein.

The regulatory standards referenced in this report are based on our knowledge of applicable regulatory standards in effect at the time the work was performed. WT cannot anticipate potential future changes to regulatory standards by appropriate governmental agencies.

This asbestos inspection report is not intended to be used as design for abatement activities. It is prepared to identify locations and other specific information regarding the asbestos containing building materials identified at the time of the inspection under our specific scope of work tasks.

Potential damage caused to the structure(s) during the inspection was described in our proposal, accepted and acknowledged by acceptance of the proposal by the Owner, and is unavoidable when conducting asbestos surveys.

WT has performed our services in accordance with our contract with our Client, utilizing the ordinary degree of skill and care practiced by other firms providing similar services in the locality of the site. No other warranty or representation expressed, or implied, is made.

CLOSURE

Thank you for the opportunity to provide services for this project. Please call our office if you have any questions concerning the inspection, the report, or to provide a quotation for additional consulting services at (602) 437-3737.

Sincerely,
WESTERN TECHNOLOGIES INC.
Environmental Services

Alexander Smith
Environmental Scientist

Vicky L. Aviles, AEP, CIAQM
Environmental Project Manager/Principal

Attachment: Figure A: 2018 Aerial Photograph

Appendix A: Figure 1: General Sample Collection Location Diagram - Building 5 (RPA Building H)
Table 1: Summary of Homogeneous Materials by Functional Space
Asbestos Survey Sample Logs, Chain-of-Custody, and Laboratory Report

Appendix B: Figure 2A: General Sample Collection Location Diagram - Building 6 (RPA Building A)
Figure 2B: Asbestos Containing Building Material Location Diagram - Building 6 (RPA Building A)
Table 2: Summary of Homogeneous Materials by Functional Space
Asbestos Survey Sample Logs, Chain-of-Custody, and Laboratory Report

Appendix C: Figure 3A: General Sample Collection Location Diagram - Building 7 (RPA Building A)
Figure 3B: Asbestos Containing Building Material Location Diagram - Building 7 (RPA Building A)
Table 3: Summary of Homogeneous Materials by Functional Space
Asbestos Survey Sample Logs, Chain-of-Custody, and Laboratory Report

Appendix D: Figure 4A: General Sample Collection Location Diagram - Building 8 (RPA Building B)
Figure 4B: Asbestos Containing Building Material Location Diagram - Building 8 (RPA Building B)
Table 4: Summary of Homogeneous Materials by Functional Space
Asbestos Survey Sample Logs, Chain-of-Custody, and Laboratory Report

Appendix E: Figure 5A: General Sample Collection Location Diagram - Building 9 (RPA Building B)
Figure 5B: Asbestos Containing Building Material Location Diagram - Building 9 (RPA Building B)
Table 5: Summary of Homogeneous Materials by Functional Space
Asbestos Survey Sample Logs, Chain-of-Custody, and Laboratory Report

Appendix F: Figure 6A: General Sample Collection Location Diagram - Building 10 (RPA Building C)
Figure 6B: Asbestos Containing Building Material Location Diagram - Building 10 (RPA Building C)
Table 6: Summary of Homogeneous Materials by Functional Space
Asbestos Survey Sample Logs, Chain-of-Custody, and Laboratory Report

Appendix G: Figure 7A: General Sample Collection Location Diagram - Building 11 (RPA Building C)

ATTACHMENT

FIGURE A – 2018 AERIAL PHOTOGRAPH

ELOY ELEMENTARY SCHOOL
1000 NORTH CURIEL STREET
ELOY, ARIZONA

N	Reviewed: V. Aviles	Date: 08-06-2018
	Client: Eloy Elementary School	Prepared By: A. Smith
	Western Technologies Inc.	
	Job No. 2188JH269	Figure No. A

APPENDIX A

FIGURE 1 – SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 5 (RPA Building H)

LEGEND

⊗ General Sample Collection Location & Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 1

TABLE 1
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 5 (Building H)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
5-M-9A1-1, 9A2-2 and 9A3-3	Asphalt Shingle	Roof	NF	Misc	2,760	**NO**
5-M-9B1-4, 9B2-5 and 9B3-6	Felt	Roof	NF	Misc	2,760	**NO**
5-M-9C1-7, 9C2-8 and 9C3-9	Sealant (black, on roof penetrations)	Roof	NF	Misc	12	**NO**
5-M-9D1-10, 9D2-11 and 9D3-12	Rolled Asphalt	Breezeway	NF	Misc	2,660	**NO**
5-M-10A1-13, 10A2-14 and 10A3-15	Concrete Block (4" x 18")	Exterior Walls	NF	Misc	1,950	**NO**

TABLE 1
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 5 (Building H)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
5-M-10B1-16, 10B2-17 and 10B3-18	Mortar (for concrete block)	Exterior Walls	NF	Misc	1950 area	**NO**

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 5

HOMOGENEOUS MATERIAL: Asphalt Shingle

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 5-M-9A

TOTAL QUANTITY: SF: 2760 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Roof →	→	→
Sample Origin	NW NE (SW) SE	NW NE SW (SE)	(NW) NE SW SE
E/W Location	Off E	Off W	Off E
N/S Location	Off N	Off N	Off S
Height ^ Floor	~~Floor~~ off →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

30' x 74'

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 2 of 6

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 5

HOMOGENEOUS MATERIAL: Felt

LOCATION BY FUNCTIONAL SPACE (FS): Bldg 5 Roof

SAMPLE NUMBER: 5-M-9B

TOTAL QUANTITY: SF: 2760 LF:

Sequential #	1 - 4	2 - 5	3 - 6
Location/FS	Roof →		
Sample Origin	NW NE (SW) SE	NW NE SW (SE)	(NW) NE SW SE
E/W Location	Off E	Off W	Off E
N/S Location	Off N	Off N	Off S
Height ^ Floor	Off →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 3 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 5

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 5-M-9C

TOTAL QUANTITY:

SF: 12 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	Roof →		
Sample Origin	NW (NE) SW SE	(NW) NE SW SE	(NW) NE SW SE
E/W Location	15ft W	8ft E	6ft E
N/S Location	2ft S	30ft S	38ft S
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

Black Roof penetrations

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 4 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 5

HOMOGENEOUS MATERIAL: Rolled Asphalt

LOCATION BY FUNCTIONAL SPACE (FS): Breezeway

SAMPLE NUMBER: 5-M-9D

TOTAL QUANTITY: SF: 7060 LF:

Sequential #	1 - 10	2 - 11	3 - 12
Location/FS	Breezeway →	→	→
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW NE (SW) SE
E/W Location	offE	offE	offE
N/S Location	0ffS	8ffS	0ffN
Height ^ Floor	0ft →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 5 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 5

HOMOGENEOUS MATERIAL: ~~Block~~ Concrete Blocks (4"x8")

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: 5-M-10A

TOTAL QUANTITY: SF: 1950 LF:

Sequential #	1 - 13	2 - 14	3 - 15
Location/FS	Exterior walls	→	→
Sample Origin	NW NE SW (SE)	(NW) NE SW SE	NW (NE) SW SE
E/W Location	Off W	Off E	Off W
N/S Location	Off N	Off S	Off S
Height ^ Floor	4ft	5ft	4ft
Component	Wall	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND	→	→
TYPE ASBESTOS			

NOTES

~~Concrete~~ Blocks (4"x8")

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 10 of 10.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg B5

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: 5-M-10B

TOTAL QUANTITY: SF: 1950 area LF:

Sequential #	1 - 16	2 - 17	3 - 18
Location/FS	Exterior walls →		
Sample Origin	NW NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	Off W	Off E	Off W
N/S Location	Off N	Off S	Off S
Height ^ Floor	4ft	2ft	4ft
Component	Wall →		
Friable	Yes No	Yes No	Yes No
Condition	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.
Accessibility	None Rare O&M General	None Rare O&M General	None Rare O&M General
Activity Level	L M H	L M H	L M H
Disturbance Potential	L/N PD PSD	L/N PD PSD	L/N PD PSD
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

for Concrete Block

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME	PROJECT ADDRESS	PROJECT MANAGER
Limited NESHAP	1000 N Cruiel Street, Eloy	Vicky Ackes
WT JOB NO.	PURCHASE ORDER NO.	EMAIL ADDRESS
2188JH2169		
SAMPLER – SIGNATURE	SAMPLER – PLEASE PRINT NAME	Single layer analysis
	A. Smith	

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
5-M-9A 1-1	08/06/18		Building 5	1	X						X		asphalt shingle
2-2													↓
3-3													felt
5-M-9B 1-4													↓
2-5													sealant (black)
3-6													↓
5-M-9C 1-7													rolled asphalt
2-8													↓
3-9													blocks
5-M-9D 1-10													↓
2-11													mortar
3-12													↓
5-M-10A 1-13													
2-14													
3-15													
5-M-10B 1-16													
2-17													
3-18													

RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED BY – SIGNATURE	RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED BY – SIGNATURE
	8/6/18	15:32					
RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY – SIGNATURE	DATE	TIME	REQUESTED TURNAROUND TIME	
						☒ 1-3 DAYS ☐ _____ HOURS	

Review of Analysis Request (Initials) ZHA

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

PAGE 1 OF 1 PAGES

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807174

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737

FAX: (602) 470-1341

 # Samples: 18 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel Street, Eloy **PO Number:**

Report Date: 8/8/2018 **Date Analyzed:** 8/8/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807174** 2188JH269 / 1000 N Curiel Street, Eloy

Sample Number	Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type *	Positive Layer Yes or No
				Asbestos Results		
Sample # 5-M-9A1-1				2018-07174- 1	Roofing	Positive Layer? No
	Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Sample # 5-M-9A2-2				2018-07174- 2	Roofing	Positive Layer? No
	Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Sample # 5-M-9A3-3				2018-07174- 3	Roofing	Positive Layer? No
	Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Sample # 5-M-9B1-4				2018-07174- 4	Roofing	Positive Layer? No
	Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Sample # 5-M-9B2-5				2018-07174- 5	Roofing	Positive Layer? No
	Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Sample # 5-M-9B3-6				2018-07174- 6	Roofing	Positive Layer? No
	Layer # 1	black	roof ply	*no asbestos detected*		
Sample # 5-M-9C1-7				2018-07174- 7	Roofing	Positive Layer? No
	Layer # 1	black	sealant	*no asbestos detected*		
Sample # 5-M-9C2-8				2018-07174- 8	Roofing	Positive Layer? No
	Layer # 1	black	sealant	*no asbestos detected*		
Sample # 5-M-9C3-9				2018-07174- 9	Roofing	Positive Layer? No
	Layer # 1	black	sealant	*no asbestos detected*		
Sample # 5-M-9D1-10				2018-07174- 10	Roofing	Positive Layer? No
	Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Sample # 5-M-9D2-11				2018-07174- 11	Roofing	Positive Layer? No
	Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Sample # 5-M-9D3-12				2018-07174- 12	Roofing	Positive Layer? No
	Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Sample # 5-M-10A1-13				2018-07174- 13	Cementitious	Positive Layer? No
	Layer # 1	gray	block	*no asbestos detected*		
Sample # 5-M-10A2-14				2018-07174- 14	Cementitious	Positive Layer? No
	Layer # 1	gray	block	*no asbestos detected*		
Sample # 5-M-10A3-15				2018-07174- 15	Cementitious	Positive Layer? No
	Layer # 1	gray	block	*no asbestos detected*		
Sample # 5-M-10B1-16				2018-07174- 16	Cementitious	Positive Layer? No
	Layer # 1	gray	mortar	*no asbestos detected*		
Sample # 5-M-10B2-17				2018-07174- 17	Cementitious	Positive Layer? No
	Layer # 1	gray	mortar	*no asbestos detected*		
Sample # 5-M-10B3-18				2018-07174- 18	Cementitious	Positive Layer? No
	Layer # 1	gray	mortar	*no asbestos detected*		

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample 5-M-9A1-1 **Lab Number** 2018-07174- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9A2-2 **Lab Number** 2018-07174- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9A3-3 **Lab Number** 2018-07174- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9B1-4 **Lab Number** 2018-07174- 4 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9B2-5 **Lab Number** 2018-07174- 5 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9B3-6 **Lab Number** 2018-07174- 6 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9C1-7 **Lab Number** 2018-07174- 7 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9C2-8 **Lab Number** 2018-07174- 8 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9C3-9 **Lab Number** 2018-07174- 9 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9D1-10 **Lab Number** 2018-07174-10 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9D2-11 **Lab Number** 2018-07174-11 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-9D3-12 **Lab Number** 2018-07174-12 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 5-M-10A1-13 **Lab Number** 2018-07174- 13 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 5-M-10A2-14 **Lab Number** 2018-07174- 14 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 5-M-10A3-15 **Lab Number** 2018-07174- 15 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 5-M-10B1-16 **Lab Number** 2018-07174- 16 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 5-M-10B2-17 **Lab Number** 2018-07174- 17 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 5-M-10B3-18 **Lab Number** 2018-07174- 18 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By RAM 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Analyst: ROBERT A. McCORMICK

Printed: 08-Aug-18

Original Print Date: 08-Aug-18

Larry S. Pierce, Approved Accreditation Signatory

APPENDIX B

FIGURE 2A – GENERAL SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 6 (RPA Building A)

LEGEND

⊗ General Sample Collection Location and Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-6-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 2A

FIGURE 2B – ASBESTOS CONTAINING BUILDING MATERIAL LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 6 (RPA Building A)

DIAGRAM NOT TO SCALE

LEGEND

- Sealant for Roof Penetrations (ACBM), Approximately 10 square feet

N

Reviewed: V. Aviles	Date: 08-6-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 2B

TABLE 2
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 6 (RPA Building A)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
6-M-9A1-1, 9A2-2 and 9A3-3	Asphalt Shingle	Roof	NF	Misc	10,140	**NO**
6-M-9B1-4, 9B2-5 and 9B3-6	Felt	Roof	NF	Misc	10,140	**NO**
6-M-9C1-7, 9C2-8 and 9C3-9	Sealant (White, on HVAC)	Roof	NF	Misc	15	**NO**
6-M-9D1-10, 9D2-11 and 9D3-12	Sealant (Black, on roof penetrations)	Roof	NF	Misc	10	**YES**
6-M-10A1-13, 10A2-14 and 10A3-15	Concrete Block (4"x18")	Exterior Walls	NF	Misc	1,240	**NO**

TABLE 2
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 6 (RPA Building A)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
6-M-2A1-16, 2A2-17 and 2A3-18	Mortar (for concrete block)	Exterior Walls	NF	Misc	1240 area	**NO**

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 6

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 6 + Bldg 7

HOMOGENEOUS MATERIAL: Asphalt Shingle

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 6-M-9A&15

TOTAL QUANTITY: SF: 10140 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Roof 6	Roof 6	Roof 7
Sample Origin	(NW) NE SW SE	NW NE (SW) SE	NW NE SW (SE)
E/W Location	off E	off E	off W
N/S Location	off S	off N	off N
Height ^ Floor	off →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

6 Samples for roof of Bldg 6 and Bldg 7

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 2 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 6 + Bldg 7

HOMOGENEOUS MATERIAL: Felt

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 6-M-9B

TOTAL QUANTITY: SF: 10140 LF:

Sequential #	1 - 4	2 - 5	3 - 6
Location/FS	Roof 6	Roof 6	Roof 7
Sample Origin	(NW) NE SW SE	NW NE (SW) SE	NW NE SW (SE)
E/W Location	Off E	Off E	Off W
N/S Location	Off S	Off N	Off N
Height ^ Floor	Off →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

Samples for roof of Bldg 6 + Bldg 7

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☑ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 3 of 10.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 6

HOMOGENEOUS MATERIAL: ~~6-M-9 PB~~ Roof As sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 6-M-9C

TOTAL QUANTITY: SF: 15 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	Roof	→	→
Sample Origin	NW NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	4ft W	4ft W	8ft W
N/S Location	10ft N	11ft N	11ft N
Height ^ Floor	0ft	→	→
Component	floor	→	→
Friable	Yes No	Yes No	Yes No
Condition	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.
Accessibility	None Rare O&M General	None Rare O&M General	None Rare O&M General
Activity Level	L M H	L M H	L M H
Disturbance Potential	L/N PD PSD	L/N PD PSD	L/N PD PSD
% ASBESTOS	ND	→	→
TYPE ASBESTOS			

NOTES

~~Black~~ As white Roof penetrations on HVAC

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 4 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 6

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 6-M-9D

TOTAL QUANTITY:

SF: 10 LF:

Sequential #	1 - 10	2 - 11	3 - 12
Location/FS	Roof →	→	→
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	(NW) NE SW SE
E/W Location	2ft E	8ft E	20ft E
N/S Location	6ft S	4ft S	8ft S
Height ^ Floor	0ft →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	10-20%	ND	10-20%
TYPE ASBESTOS	Chrysotile		Chrysotile

NOTES

Black Roof Penetrations

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 6

HOMOGENEOUS MATERIAL: Concrete

LOCATION BY FUNCTIONAL SPACE (FS): Exterior walls

SAMPLE NUMBER: 6-M-10A

TOTAL QUANTITY: SF: 1240 LF:

Sequential #	1 - 13	2 - 14	3 - 15
Location/FS	Extwalls	→	
Sample Origin	(NW) NE SW SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	8ft E	0ft W	0ft W
N/S Location	0ft S	0ft S	0ft N
Height ^ Floor	1ft	1ft	1ft
Component	Wall	→	
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND	→	
TYPE ASBESTOS			

NOTES

Block 4"x18"

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 6 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 6

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): Bldg 6/B Exterior Walls

SAMPLE NUMBER: 6-M-10B

TOTAL QUANTITY: SF: 1240 area LF:

Sequential #	1 - 16	2 - 17	3 - 18
Location/FS	Exterior walls	→	→
Sample Origin	(NW) NE SW SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	off E	off W	off W
N/S Location	off S	off S	off S
Height ^ Floor	1ft	1ft	1ft
Component	Wall	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND	→	→
TYPE ASBESTOS			

NOTES

top concrete Block

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☑ ASBESTOS ☐ LEAD

PROJECT NAME	PROJECT ADDRESS	PROJECT MANAGER
Limited NESHAP	1000 Curtiel St, Eloy	Vicky Aviles
WT JOB NO.	PURCHASE ORDER NO.	EMAIL ADDRESS
2188JH269		
SAMPLER — SIGNATURE	SAMPLER — PLEASE PRINT NAME	Single layer analysis
	A. Smith	

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
6-M-9A 1-1	08/06/18		Building 6	1	X						X		asphalt shingle
2-2													
3-5													felt
6-M-9B 1-4													
2-5													
3-6													sealant (white)
6-M-9C 1-7													
2-8													
3-9													sealant (black)
6-M-9D 1-10													
2-11													
3-12													blocks
6-M-10A 1-13													
2-14													
3-15													mortar
6-M-10B 1-16													
2-17													
3-18													

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE
[signature]	8/6/18	15:32	[signature]
RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY — SIGNATURE
			[signature]

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE

REQUESTED TURNAROUND TIME
☒ 1-3 DAYS ☐ _____ HOURS

Review of Analysis Request (Initials) [initials]

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807178

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737
FAX: (602) 470-1341

 # Samples: 18 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel Street, Eloy **PO Number:**

Report Date: 8/9/2018 **Date Analyzed:** 8/8/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807178** 2188JH269 / 1000 N Curiel Street, Eloy

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number / Asbestos Results	Apparent Sample Type *	Positive Layer Yes or No
Sample # 6-M-9A1-1			2018-07178- 1	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Sample # 6-M-9A2-2			2018-07178- 2	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Layer # 2	black	roofing roll/shingle	*no asbestos detected*		
Sample # 6-M-9A3-3			2018-07178- 3	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle	*no asbestos detected*		
Sample # 6-M-9B1-4			2018-07178- 4	Roofing	Positive Layer? No
Layer # 1	black	roof ply	*no asbestos detected*		
Sample # 6-M-9B2-5			2018-07178- 5	Roofing	Positive Layer? No
Layer # 1	black	roof ply	*no asbestos detected*		
Sample # 6-M-9B3-6			2018-07178- 6	Roofing	Positive Layer? No
Layer # 1	black	roof ply	*no asbestos detected*		
Sample # 6-M-9C1-7			2018-07178- 7	Adhesive/caulk	Positive Layer? No
Layer # 1	white	coating	*no asbestos detected*		
Sample # 6-M-9C2-8			2018-07178- 8	Adhesive/caulk	Positive Layer? No
Layer # 1	white	coating	*no asbestos detected*		
Sample # 6-M-9C3-9			2018-07178- 9	Adhesive/caulk	Positive Layer? No
Layer # 1	white	coating	*no asbestos detected*		
Sample # 6-M-9D1-10			2018-07178- 10	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	caulk	*10-20% chrysotile asbestos*		
Sample # 6-M-9D2-11			2018-07178- 11	Adhesive/caulk	Positive Layer? No
Layer # 1	black	caulk	*no asbestos detected*		
Sample # 6-M-9D3-12			2018-07178- 12	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	caulk	*10-20% chrysotile asbestos*		
Sample # 6-M-10A1-13			2018-07178- 13	Cementitious	Positive Layer? No
Layer # 1	gray	block	*no asbestos detected*		
Sample # 6-M-10A2-14			2018-07178- 14	Cementitious	Positive Layer? No
Layer # 1	gray	block	*no asbestos detected*		
Sample # 6-M-10A3-15			2018-07178- 15	Cementitious	Positive Layer? No
Layer # 1	gray	block	*no asbestos detected*		
Sample # 6-M-10B1-16			2018-07178- 16	Cementitious	Positive Layer? No
Layer # 1	gray	mortar	*no asbestos detected*		
Sample # 6-M-10B2-17			2018-07178- 17	Cementitious	Positive Layer? No
Layer # 1	gray	mortar	*no asbestos detected*		
Sample # 6-M-10B3-18			2018-07178- 18	Cementitious	Positive Layer? No
Layer # 1	gray	mortar	*no asbestos detected*		

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample 6-M-9A1-1 **Lab Number** 2018-07178- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-9A2-2 **Lab Number** 2018-07178- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	60	black	1	5-10%	-	-	-	-	-
2	roofing roll/shingle	40	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-9A3-3 **Lab Number** 2018-07178- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-9B1-4 **Lab Number** 2018-07178- 4 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-9B2-5 **Lab Number** 2018-07178- 5 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-9B3-6 **Lab Number** 2018-07178- 6 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-9C1-7 **Lab Number** 2018-07178- 7 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	coating	100	white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-9C2-8 **Lab Number** 2018-07178- 8 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	coating	100	white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-9C3-9 **Lab Number** 2018-07178- 9 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	coating	100	white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Sample bag is mislabeled as "6-M-9C3-12".

Sample 6-M-9D1-10 **Lab Number** 2018-07178- 10 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (In approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	10-20%	-	-	-	-	-
	Total %	100		Overall %	10-20%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-9D2-11 **Lab Number** 2018-07178- 11 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (In approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	10-20%	-	-	-	-	-
	Total %	100		Overall %	10-20%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-9D3-12 **Lab Number** 2018-07178- 12 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (In approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	10-20%	-	-	-	-	-
	Total %	100		Overall %	10-20%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 6-M-10A1-13 **Lab Number** 2018-07178- 13 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An? OK** **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 6-M-10A2-14 **Lab Number** 2018-07178- 14 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An? OK** **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 6-M-10A3-15 **Lab Number** 2018-07178- 15 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An? OK** **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 6-M-10B1-16 **Lab Number** 2018-07178- 16 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 6-M-10B2-17 **Lab Number** 2018-07178- 17 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 6-M-10B3-18 **Lab Number** 2018-07178- 18 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By DMS 8/9/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Analyst: DAVID M. SCHALLER

Printed: 09-Aug-18

Original Print Date: 09-Aug-18

Larry S. Pierce, Approved Accreditation Signatory

APPENDIX C

FIGURE 3A – SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 7 (RPA Building A)

LEGEND

⊗ General Sample Collection Location & Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 3A

FIGURE 3B – ASBESTOS CONTAINING BUILDING MATERIALS LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 7 (RPA Building A)

DIAGRAM NOT TO SCALE

LEGEND

Sealant for Roof Penetrations (ACBM), Approximately 10 square feet

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 3B

TABLE 3
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 7 (RPA Building A)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
7-M-9A1-1, 9A2-2 and 9A3-3	Sealant (Black, on roof penetrations)	Roof	NF	Misc	10	**NO**
7-M-9B1-4, 9B2-5 and 9B3-6	Rolled Asphalt	Breezeway	NF	Misc	420	**NO**
7-M-10A1-7, 10A2-8 and 10A3-9	Concrete Block (4"x18")	Exterior Walls	NF	Misc	1,360	**NO**
7-M-10B1-10, 10B2-11 and 10B3-12	Mortar (for concrete block)	Exterior Walls	NF	Misc	1360 area	**NO**

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 4.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 7

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 7-M-9A

TOTAL QUANTITY: SF: 10 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	(NW) NE SW SE
E/W Location	6ft E	14ft E	24ft E
N/S Location	4ft S	4ft S	4ft S
Height ^ Floor	0ft →		
Component	floor		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	2-5% →		
TYPE ASBESTOS	Chrysotile →		

NOTES: Black, Roof Penetrations

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 2 of 4.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 7

HOMOGENEOUS MATERIAL: Rubbled Asphalt

LOCATION BY FUNCTIONAL SPACE (FS): Breezeway

SAMPLE NUMBER: 7-M-9B

TOTAL QUANTITY: SF: 420 LF:

Sequential #	1 - 4	2 - 5	3 - 6
Location/FS	Breezeway →		
Sample Origin	NW (NE) SW SE	(NW) NE SW SE	NW NE SW (SE)
E/W Location	off W	off E	off W
N/S Location	off S	off S	off N
Height ^ Floor	off →		
Component	Floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	L M H	L M H	L M H
Disturbance Potential	L/N PD PSD	L/N PD PSD	L/N PD PSD
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 7

HOMOGENEOUS MATERIAL: Concrete

LOCATION BY FUNCTIONAL SPACE (FS): Exterior walls

SAMPLE NUMBER: 7-M-10A

TOTAL QUANTITY: SF: 1360 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	Exterior walls →		
Sample Origin	(NW) NE SW SE	NW NE (SW) SE	NW NE SW (SE)
E/W Location	Off E	Off E	Off W
N/S Location	Off S	Off N	Off N
Height ^ Floor	1 Off	1 Off	1 Off
Component	Wall	Wall	Wall
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

Block 4" x 18"

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 4 of 4.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 7

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: 7-M-10B

TOTAL QUANTITY: SF: 1360 Area LF:

Sequential #	1 - 10	2 - 11	3 - 12
Location/FS	Exterior Walls →	→	→
Sample Origin	NW NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	Eff E	Eff E	Eff W
N/S Location	Eff S	Eff N	Eff N
Height ^ Floor	1 Ft	1 Ft	1 Ft
Component	Wall →	→	→
Friable	Yes No	Yes No	Yes No
Condition	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.
Accessibility	None Rare O&M General	None Rare O&M General	None Rare O&M General
Activity Level	L M H	L M H	L M H
Disturbance Potential	L/N PD PSD	L/N PD PSD	L/N PD PSD
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

for concrete Block

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME	PROJECT ADDRESS	PROJECT MANAGER
Limited NESHAP	1000 N Currel St, ELOY	Vicky Wilkes
WT JOB NO.	PURCHASE ORDER NO.	EMAIL ADDRESS
2188JH269		
SAMPLER – *SIGNATURE*	SAMPLER – *PLEASE PRINT NAME*	
	A. Smith	

Single layer Analysis

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
7-M-9A 1-1	08/06/18		Building 7	1	X						X		sealant (black
2-2													
3-3													
7-M-9B 1-4													rolled asphalt
2-5													
3-6													
7-M-10A 1-7													blocks
2-8													
3-9													
7-M-10B 1-10													mortar
2-11													
3-12													
7- 1-13													
2-14													
3-15													
7- 1-16													
2-17													
3-18													

RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED BY – *SIGNATURE*	RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED BY – *SIGNATURE*
	8/6/18	15:32					
RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED FOR LABORATORY BY – *SIGNATURE*	DATE	TIME	REQUESTED TURNAROUND TIME	
						☒ 1-3 DAYS ☐ _____ HOURS	

Review of Analysis Request (Initials)

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807177

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737
FAX: (602) 470-1341

 # Samples: 12 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel Street, Eloy **PO Number:**

Report Date: 8/9/2018 **Date Analyzed:** 8/9/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807177** 2188JH269 / 1000 N Curiel Street, Eloy

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type * / Asbestos Results	Positive Layer Yes or No
Sample # Z-M-9A1-1			2018-07177- 1	Roofing	Positive Layer? Yes
Layer # 1	black	caulk		*2-5% chrysotile asbestos*	
Sample # Z-M-9A2-2			2018-07177- 2	Roofing	Positive Layer? Yes
Layer # 1	black	caulk		*2-5% chrysotile asbestos*	
Sample # Z-M-9A3-3			2018-07177- 3	Roofing	Positive Layer? Yes
Layer # 1	black	caulk		*2-5% chrysotile asbestos*	
Sample # Z-M-9B1-4			2018-07177- 4	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # Z-M-9B2-5			2018-07177- 5	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # Z-M-9B3-6			2018-07177- 6	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # Z-M-10A1-7			2018-07177- 7	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # Z-M-10A2-8			2018-07177- 8	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # Z-M-10A3-9			2018-07177- 9	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # Z-M-10B1-10			2018-07177- 10	Cementitious	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	
Sample # Z-M-10B2-11			2018-07177- 11	Cementitious	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	
Sample # Z-M-10B3-12			2018-07177- 12	Cementitious	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample 7-M-9A1-1 **Lab Number** 2018-07177- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Par	RI Par	RI Par
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 7-M-9A2-2 **Lab Number** 2018-07177- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Par	RI Par	RI Par
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 7-M-9A3-3 **Lab Number** 2018-07177- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Par	RI Par	RI Par
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 7-M-9B1-4 **Lab Number** 2018-07177- 4 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 7-M-9B2-5 **Lab Number** 2018-07177- 5 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 7-M-9B3-6 **Lab Number** 2018-07177- 6 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 7-M-10A1-7 **Lab Number** 2018-07177- 7 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 7-M-10A2-8 **Lab Number** 2018-07177- 8 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 7-M-10A3-9 **Lab Number** 2018-07177- 9 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 7-M-10B1-10 **Lab Number** 2018-07177- 10 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 7-M-10B2-11 **Lab Number** 2018-07177- 11 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 7-M-10B3-12 **Lab Number** 2018-07177- 12 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By MAC 8/9/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Analyst: MICHAEL A. COOK

Printed: 09-Aug-18

Original Print Date: 09-Aug-18

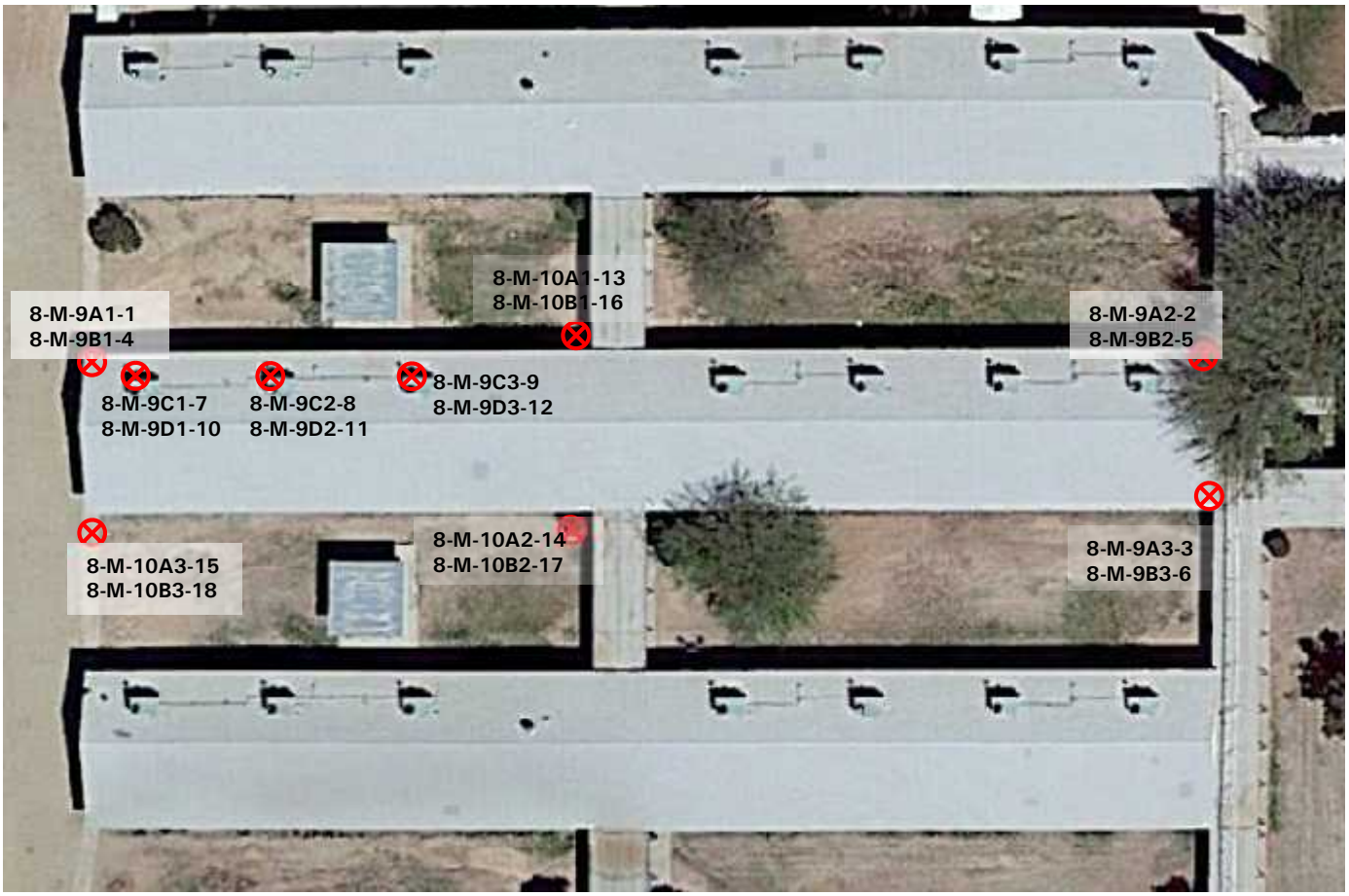
Larry S. Pierce, Approved Accreditation Signatory

APPENDIX D

FIGURE 4A – GENERAL SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 8 (RPA Building B)



LEGEND

⊗ General Sample Collection Location & Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 4A

FIGURE 4B – ASBESTOS CONTAINING BUILDING MATERIAL LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 8 (RPA Building B)

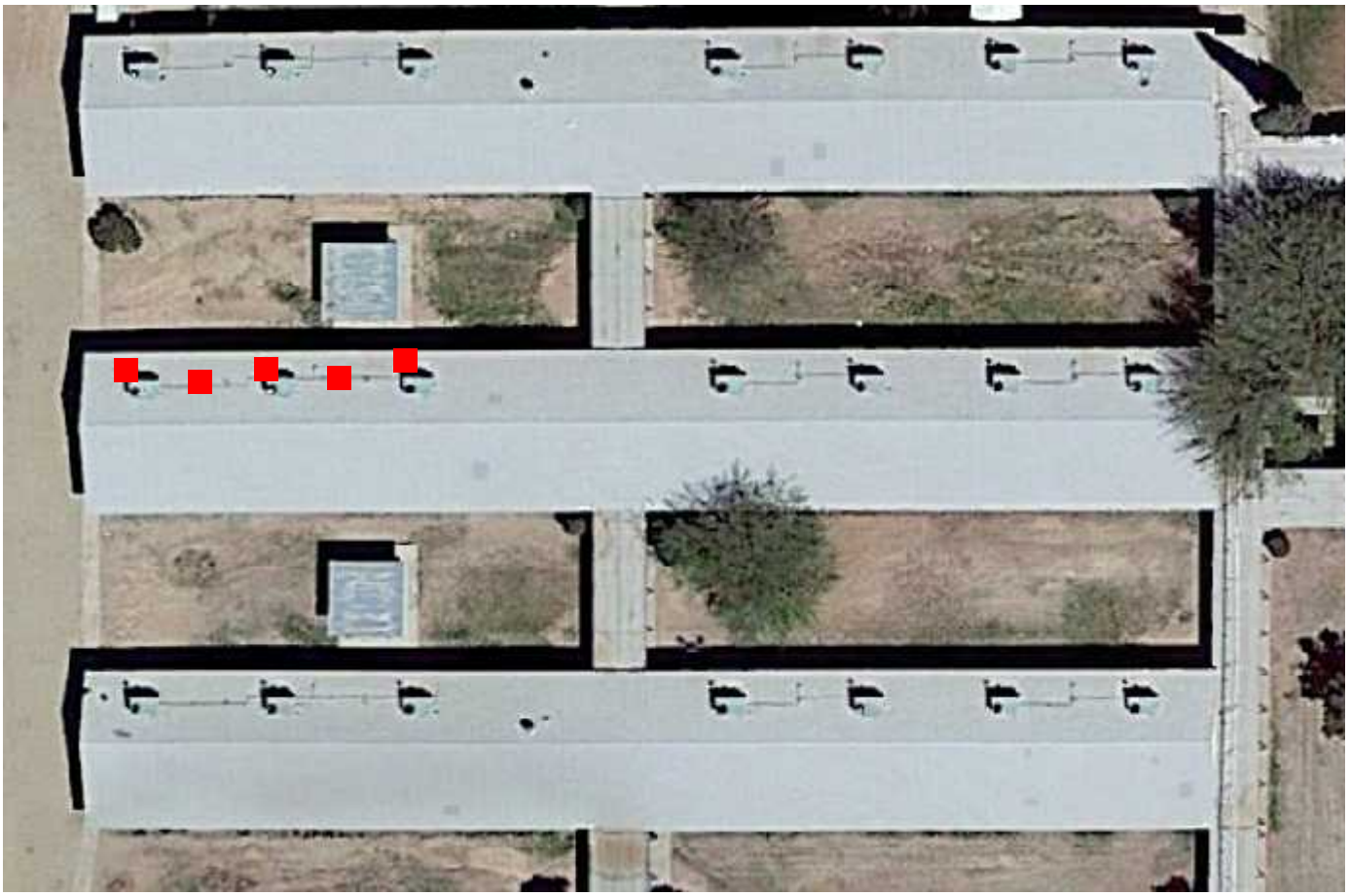


DIAGRAM NOT TO SCALE

LEGEND

- Sealant for Roof Penetrations (ACBM), Approximately 10 square feet

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 4B

TABLE 4
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 8 (RPA Building B)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
8-M-9A1-1, 9A2-2 and 9A3-3	Asphalt Shingle	Roof	NF	Misc	10,140	**NO**
8-M-9B1-4, 9B2-5 and 9B3-6	Felt	Roof	NF	Misc	10,140	**NO**
8-M-9C1-7, 9C2-8 and 9C3-9	Sealant (White, on HVAC)	Roof	NF	Misc	15	**NO**
8-M-9D1-10, 9D2-11 and 9D3-12	Sealant (Black, on roof penetrations)	Roof	NF	Misc	10	**YES**
8-M-10A1-13, 10A2-14 and 10A3-15	Concrete Block (4"x18")	Exterior Walls	NF	Misc	1,240	**NO**

TABLE 4
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 8 (RPA Building B)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
8-M-10B1-16, 10B2-17 and 10B3-18	Mortar (for concrete block)	Exterior Walls	NF	Misc	1,240	**NO**

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 8 + Bldg 9

HOMOGENEOUS MATERIAL: Asphalt Shingle

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 8-MAPAS

TOTAL QUANTITY: SF: 10140 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Roof 8	Roof 9	Roof 9
Sample Origin	(NW) NE SW SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	off E	off W	off W
N/S Location	off S	off S	off N
Height ^ Floor	off →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

Samples for roof of Bldg 8 + Bldg 9

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 8 + Bldg 9

HOMOGENEOUS MATERIAL: Felt

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 8-M-9AB

TOTAL QUANTITY: SF: 10140 LF:

Sequential #	1 - 4	2 - 5	3 - 6
Location/FS	Roof 8	Roof 9	Roof 9
Sample Origin	(NW) NE SW SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	off E	off W	off W
N/S Location	off S	off S	off N
Height ^ Floor	0ft →	→	→
Component	Roof →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M General	None Rare O&M General	None Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

Samples for roofs of Bldg 8 + Bldg 9

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 8-M-9C

TOTAL QUANTITY: SF: 15 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	Roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	60ftE	18ftE	100ftW
N/S Location	60ftS	60ftS	60ftS
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

White, Roof penetrations On HVAC

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 13 4 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 8

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 8-M-9D

TOTAL QUANTITY: SF: 10 LF:

Sequential #	1 - 10	2 - 11	3 - 12
Location/FS	Roof →	→	→
Sample Origin	(NW) NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	6ft E	18ft E	16ft W
N/S Location	4ft S	4ft S	4ft S
Height ^ Floor	0ft →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	2-5% →	→	→
TYPE ASBESTOS	Chrysotile →	→	→

NOTES

Black Roof penetrations

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 5 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 8

HOMOGENEOUS MATERIAL: Concrete

LOCATION BY FUNCTIONAL SPACE (FS): ~~Bldg~~ 8AS Exterior Walls

SAMPLE NUMBER: 8-M-10A

TOTAL QUANTITY: SF: 1240 LF:

Sequential #	1 - 13	2 - 14	3 - 15
Location/FS	Exterior walls →		
Sample Origin	NW (NE) SW SE	NW NE ~~SW~~ SE	NW NE (SW) SE
E/W Location	0ftW	0ftW	0ftE
N/S Location	0ftS	0ftS	0ftN
Height ^ Floor	3ft	3ft	4ft
Component	Wall →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

Block 4 1/2" x 18"

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 6 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 8

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): ~~Bldg 8~~ A13 Exterior walls

SAMPLE NUMBER: 8-M-10B

TOTAL QUANTITY: SF: 1240 area LF:

Sequential #	1 - 16	2 - 17	3 - 18
Location/FS	Exterior walls →		
Sample Origin	~~NW~~ NE SW SE	NW NE SW (SE)	NW NE (SW) SE
E/W Location	off W	off W	off E
N/S Location	off S	off N	off N
Height ^ Floor	3ft	3ft	4ft
Component	Wall →		
Friable	Yes (No)	Yes (No)	Yes No
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	Good Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME	PROJECT ADDRESS
Limited NESHAP	10000 N Curiel St, Eloy
WT JOB NO.	PURCHASE ORDER NO.
2188_TH269	
SAMPLER – *SIGNATURE*	SAMPLER – *PLEASE PRINT NAME*
[signature]	A. Smith

PROJECT MANAGER: Vicky Aviles
EMAIL ADDRESS:

Single layer Analysis

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
8-M-9A 1-1	08/06/18		Building 8	1	X						X		asphalt shingle
2-2													↓
3-3													felt
8-M-9B 1-4													↓
2-5													sealant (white)
3-6													↓
8-M-9C 1-7													sealant (black)
2-8													↓
3-9													block
8-M-9D 1-10													↓
2-11													mortar
3-12													↓
8-M-10A 1-13													
2-14													
3-15													
8-M-10B 1-16													
2-17													
3-18													

RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED BY – *SIGNATURE*
[signature]	8/6/18	15:32	[signature]
RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED FOR LABORATORY BY – *SIGNATURE*
			[signature]

RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED BY – *SIGNATURE*

REQUESTED TURNAROUND TIME
☒ 1-3 DAYS ☐ _____ HOURS

Review of Analysis Request (Initials) [initials]

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

352 – 1993

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807175

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737
FAX: (602) 470-1341

 # Samples: 18 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel Street, Eloy **PO Number:**

Report Date: 8/8/2018 **Date Analyzed:** 8/8/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807175** 2188JH269 / 1000 N Curiel Street, Eloy

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type *	Asbestos Results	Positive Layer Yes or No
Sample # 8-M-9A1-1			2018-07175- 1	Roofing		Positive Layer? No
Layer # 1	black	roofing roll/shingle			*no asbestos detected*	
Sample # 8-M-9A2-2			2018-07175- 2	Roofing		Positive Layer? No
Layer # 1	black	roofing roll/shingle			*no asbestos detected*	
Sample # 8-M-9A3-3			2018-07175- 3	Roofing		Positive Layer? No
Layer # 1	black	roofing roll/shingle			*no asbestos detected*	
Sample # 8-M-9B1-4			2018-07175- 4	Roofing		Positive Layer? No
Layer # 1	black	roof ply			*no asbestos detected*	
Sample # 8-M-9B2-5			2018-07175- 5	Roofing		Positive Layer? No
Layer # 1	black	roof ply			*no asbestos detected*	
Sample # 8-M-9B3-6			2018-07175- 6	Roofing		Positive Layer? No
Layer # 1	black	roof ply			*no asbestos detected*	
Sample # 8-M-9C1-7			2018-07175- 7	Adhesive/caulk		Positive Layer? No
Layer # 1	white	sealant			*no asbestos detected*	
Sample # 8-M-9C2-8			2018-07175- 8	Adhesive/caulk		Positive Layer? No
Layer # 1	white	sealant			*no asbestos detected*	
Sample # 8-M-9C3-9			2018-07175- 9	Adhesive/caulk		Positive Layer? No
Layer # 1	white	sealant			*no asbestos detected*	
Sample # 8-M-9D1-10			2018-07175- 10	Roofing		Positive Layer? Yes
Layer # 1	black	caulk			*2-5% chrysotile asbestos*	
Sample # 8-M-9D2-11			2018-07175- 11	Roofing		Positive Layer? Yes
Layer # 1	black	caulk			*2-5% chrysotile asbestos*	
Sample # 8-M-9D3-12			2018-07175- 12	Roofing		Positive Layer? Yes
Layer # 1	black	caulk			*2-5% chrysotile asbestos*	
Sample # 8-M-10A1-13			2018-07175- 13	Cementitious		Positive Layer? No
Layer # 1	gray	block			*no asbestos detected*	
Sample # 8-M-10A2-14			2018-07175- 14	Cementitious		Positive Layer? No
Layer # 1	gray	block			*no asbestos detected*	
Sample # 8-M-10A3-15			2018-07175- 15	Cementitious		Positive Layer? No
Layer # 1	gray	block			*no asbestos detected*	
Sample # 8-M-10B1-16			2018-07175- 16	Cementitious		Positive Layer? No
Layer # 1	gray	mortar			*no asbestos detected*	
Sample # 8-M-10B2-17			2018-07175- 17	Cementitious		Positive Layer? No
Layer # 1	gray	mortar			*no asbestos detected*	
Sample # 8-M-10B3-18			2018-07175- 18	Cementitious		Positive Layer? No
Layer # 1	gray	mortar			*no asbestos detected*	

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample 8-M-9A1-1 **Lab Number** 2018-07175- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9A2-2 **Lab Number** 2018-07175- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9A3-3 **Lab Number** 2018-07175- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9B1-4 **Lab Number** 2018-07175- 4 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9B2-5 **Lab Number** 2018-07175- 5 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9B3-6 **Lab Number** 2018-07175- 6 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9C1-7 **Lab Number** 2018-07175- 7 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): polymer, mica/vermiculite, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1 none												
2												
3												
4												
5												
6												

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9C2-8 **Lab Number** 2018-07175- 8 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): polymer, mica/vermiculite, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1 none												
2												
3												
4												
5												
6												

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9C3-9 **Lab Number** 2018-07175- 9 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): polymer, mica/vermiculite, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1 none												
2												
3												
4												
5												
6												

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9D1-10 **Lab Number** 2018-07175- 10 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9D2-11 **Lab Number** 2018-07175- 11 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-9D3-12 **Lab Number** 2018-07175- 12 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 8-M-10A1-13 **Lab Number** 2018-07175- 13 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 8-M-10A2-14 **Lab Number** 2018-07175- 14 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 8-M-10A3-15 **Lab Number** 2018-07175- 15 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 8-M-10B1-16 **Lab Number** 2018-07175- 16 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 8-M-10B2-17 **Lab Number** 2018-07175- 17 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 8-M-10B3-18 **Lab Number** 2018-07175- 18 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Analyst: MICHAEL A. COOK

Printed: 08-Aug-18

Original Print Date: 08-Aug-18

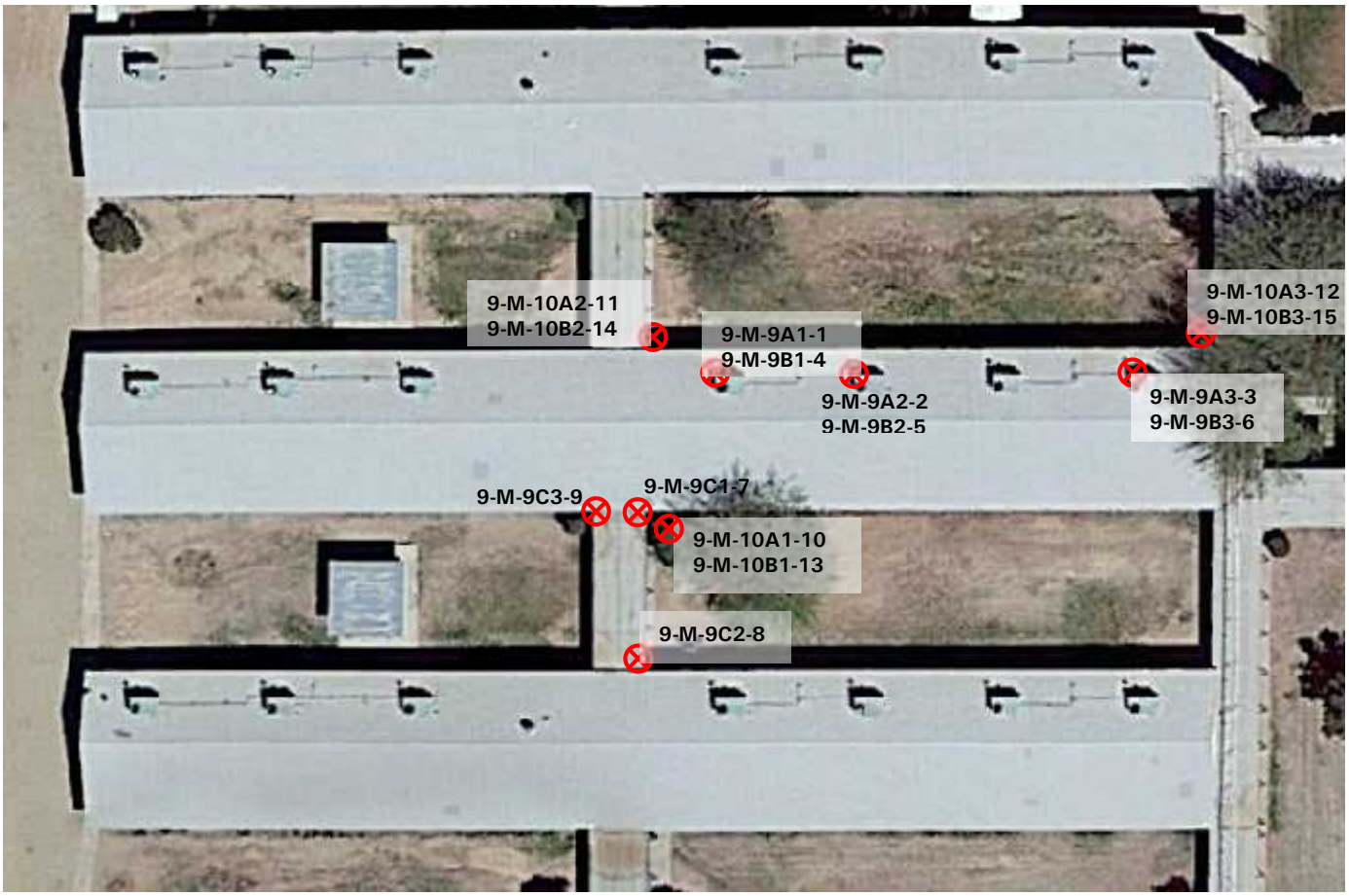
Larry S. Pierce, Approved Accreditation Signatory

APPENDIX E

FIGURE 5A – GENERAL SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 9 (RPA Building B)



LEGEND

⊗ General Sample Collection Location & Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 5A

FIGURE 5B – ASBESTOS CONTAINING BUILDING MATERIAL LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 9 (RPA Building B)

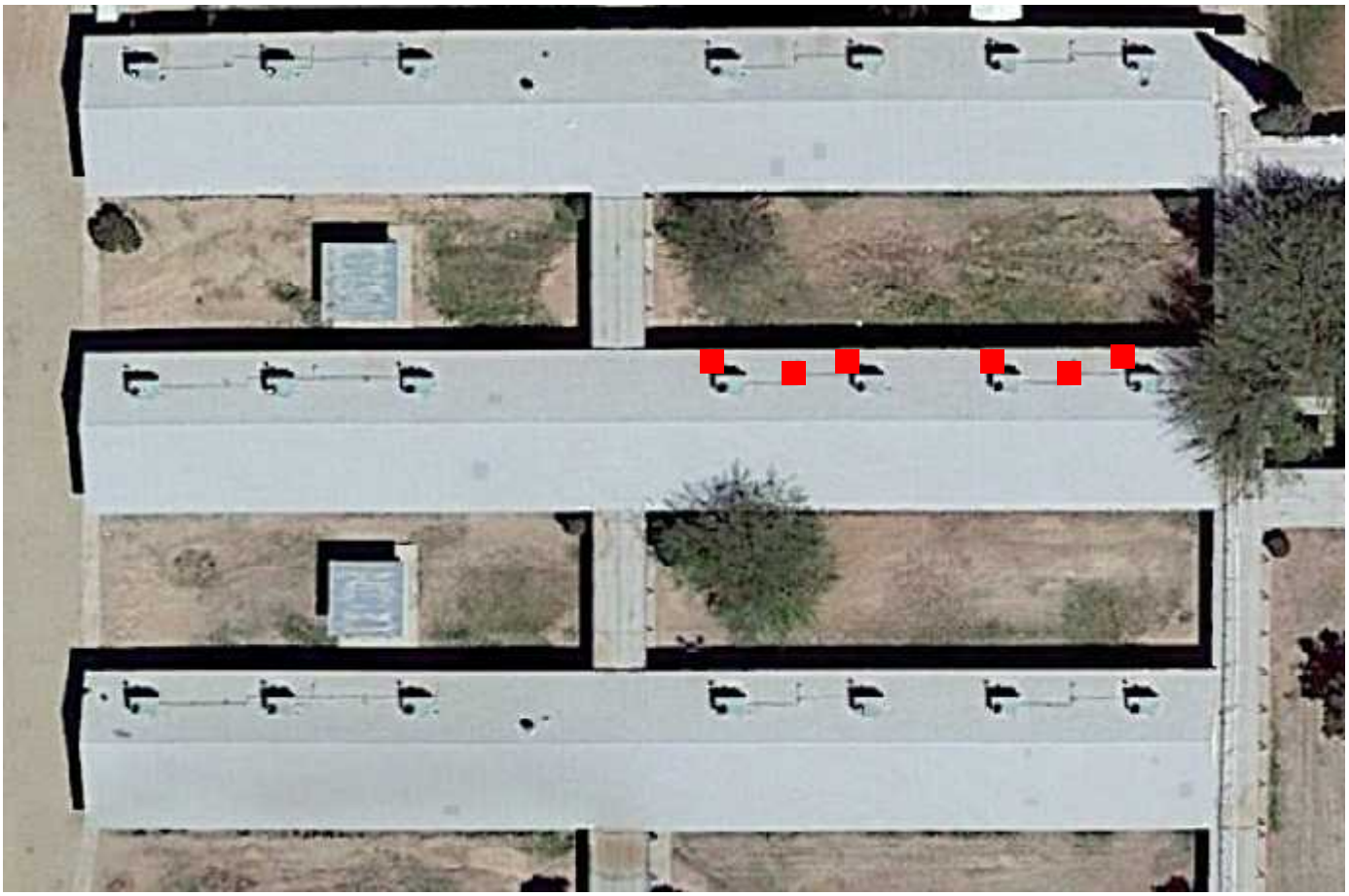


DIAGRAM NOT TO SCALE

LEGEND

- Sealant for Roof Penetrations (ACBM), Approximately 10 square feet

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 5B

TABLE 5
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 9 (RPA Building B)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
9-M-9A1-1, 9A2-2 and 9A3-3	Sealant (White, on HVAC)	Roof	NF	Misc	15	**NO**
9-M-9B1-4, 9B2-5 and 9B3-6	Sealant (Black, roof penetrations)	Roof	NF	Misc	10	**YES**
9-M-9C1-7, 9C2-8 and 9C3-9	Rolled Asphalt	Breezeway	NF	Misc	420	**NO**
9-M-10A1-10, 10A2-11 and 10A3-12	Concrete Block (4"x18")	Exterior Walls	NF	Misc	1,360	**NO**
9-M-10B1-13, 10B2-14 and 10B3-15	Mortar (for concrete block)	Exterior Walls	NF	Misc	1360 area	**NO**

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 9

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 9-M-9A

TOTAL QUANTITY: SF: 15 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	10ftE	24ftE	10ftW
N/S Location	6ftS	6ftS	6ftS
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

White, Roof Penetrations

On HVAC

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 9

HOMOGENEOUS MATERIAL: sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 9-M-9B

TOTAL QUANTITY: SF: 10 LF:

Sequential #	1 - 4	2 - 5	3 - 6
Location/FS	Roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW NE SW SE
E/W Location	10ft E	24ft E	10ft W
N/S Location	4ft S	4ft S	4ft S
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	5-10% →		
TYPE ASBESTOS	Chrysotile →		

NOTES

Black, On Roof penetrations

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 3 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 9

HOMOGENEOUS MATERIAL: Roofed Asphalt

LOCATION BY FUNCTIONAL SPACE (FS): Breezway

SAMPLE NUMBER: 9-M-9C

TOTAL QUANTITY: SF: 420 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	Breezway →	→	→
Sample Origin	(NW) NE SW SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	Off E	Off W	Off W
N/S Location	Off S	Off S	Off N
Height ^ Floor	Off →	→	→
Component	Floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☑ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 4 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 9

HOMOGENEOUS MATERIAL: Concrete

LOCATION BY FUNCTIONAL SPACE (FS): Exterior walls

SAMPLE NUMBER: 9-M-10A

TOTAL QUANTITY:
SF: 1360 LF:

Sequential #	1 - 13 (10)	2 - 13/14 (11)	3 - 13 (12)
Location/FS	Exterior walls →		
Sample Origin	NW NE (SW) SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	Off E	Off E	Off W
N/S Location	Off N	Off S	Off S
Height ^ Floor	5ft	5ft	~~4ft~~ 4ft
Component	Wall →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

Block 4"x18"

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 5 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 9

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: 9-M-10B

TOTAL QUANTITY: SF: 1360 Area LF:

Sequential #	1 - 16 AS 13	2 - 17 AS 14	3 - 18 AS 15
Location/FS	Exterior walls	→	→
Sample Origin	NW NE (SW) SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	0ft E	0ft E	0ft W
N/S Location	0ft N	0ft S	0ft S
Height ^ Floor	5ft	5ft	4ft
Component	Wall	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND	→	→
TYPE ASBESTOS			

NOTES

for Concrete Block

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME: Graded NESHAP
PROJECT ADDRESS: 1000 N Cuirle St, Eloy
PROJECT MANAGER: Vicky Acales
WT JOB NO.: 2188SHR109
PURCHASE ORDER NO.:
EMAIL ADDRESS:
SAMPLER — SIGNATURE:
SAMPLER — PLEASE PRINT NAME: A. Smith

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
9-M-9A 1-1	08/06/18		Building 9	1	X						X		Single layer Analysis
2-2													sealant (white)
3-3													↓
9-M-9B 1-4													sealant (black)
2-5													↓
3-6													rolled asphalt
9-M-9C 1-7													↓
2-8													blocks
3-9													↓
9-M-10A 1-10													mortar
2-11													↓
3-12													
9-M-10B 1-13													
2-14													
3-15													
9- 1-16													
2-17													
3-18													

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE
[signature]	8/6/18	15:32	[signature]
RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY — SIGNATURE

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE

REQUESTED TURNAROUND TIME
☒ 1-3 DAYS ☐ _____ HOURS

Review of Analysis Request (Initials): ZAA

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807168

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737

FAX: (602) 470-1341

 # Samples: 15 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel St, Eloy **PO Number:**

Report Date: 8/8/2018 **Date Analyzed:** 8/8/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807168** 2188JH269 / 1000 N Curiel St, Eloy

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type * / *Asbestos Results*	Positive Layer Yes or No
Sample # 9-M-9A1-1			2018-07168- 1	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 9-M-9A2-2			2018-07168- 2	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 9-M-9A3-3			2018-07168- 3	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 9-M-9B1-4			2018-07168- 4	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	sealant		*5-10% chrysotile asbestos*	
Sample # 9-M-9B2-5			2018-07168- 5	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	sealant		*5-10% chrysotile asbestos*	
Sample # 9-M-9B3-6			2018-07168- 6	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	sealant		*5-10% chrysotile asbestos*	
Sample # 9-M-9C1-7			2018-07168- 7	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 9-M-9C2-8			2018-07168- 8	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 9-M-9C3-9			2018-07168- 9	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 9-M-10A1-10			2018-07168- 10	Cementitious	Positive Layer? No
Layer # 1	various	block		*no asbestos detected*	
Sample # 9-M-10A2-11			2018-07168- 11	Cementitious	Positive Layer? No
Layer # 1	various	block		*no asbestos detected*	
Sample # 9-M-10A3-12			2018-07168- 12	Cementitious	Positive Layer? No
Layer # 1	various	block		*no asbestos detected*	
Sample # 9-M-10B1-13			2018-07168- 13	Cementitious	Positive Layer? No
Layer # 1	off-white	mortar		*no asbestos detected*	
Sample # 9-M-10B2-14			2018-07168- 14	Cementitious	Positive Layer? No
Layer # 1	off-white	mortar		*no asbestos detected*	
Sample # 9-M-10B3-15			2018-07168- 15	Cementitious	Positive Layer? No
Layer # 1	off-white	mortar		*no asbestos detected*	

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample 9-M-9A1-1 **Lab Number** 2018-07168- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, mica/vermiculite, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 9-M-9A2-2 **Lab Number** 2018-07168- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, mica/vermiculite, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 9-M-9A3-3 **Lab Number** 2018-07168- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, mica/vermiculite, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 9-M-9B1-4 **Lab Number** 2018-07168- 4 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 9-M-9B2-5 **Lab Number** 2018-07168- 5 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 9-M-9B3-6 **Lab Number** 2018-07168- 6 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 9-M-9C1-7 **Lab Number** 2018-07168- 7 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 9-M-9C2-8 **Lab Number** 2018-07168- 8 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 9-M-9C3-9 **Lab Number** 2018-07168- 9 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 9-M-10A1-10 **Lab Number** 2018-07168- 10 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	various	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 9-M-10A2-11 **Lab Number** 2018-07168- 11 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	various	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 9-M-10A3-12 **Lab Number** 2018-07168- 12 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	various	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 9-M-10B1-13 **Lab Number** 2018-07168- 13 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	off-white	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 9-M-10B2-14 **Lab Number** 2018-07168- 14 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	off-white	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 9-M-10B3-15 **Lab Number** 2018-07168- 15 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	off-white	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Uwe Steimle

Analyst: UWE .. STEIMLE

Printed: 08-Aug-18

Original Print Date: 08-Aug-18

Larry S. Pierce

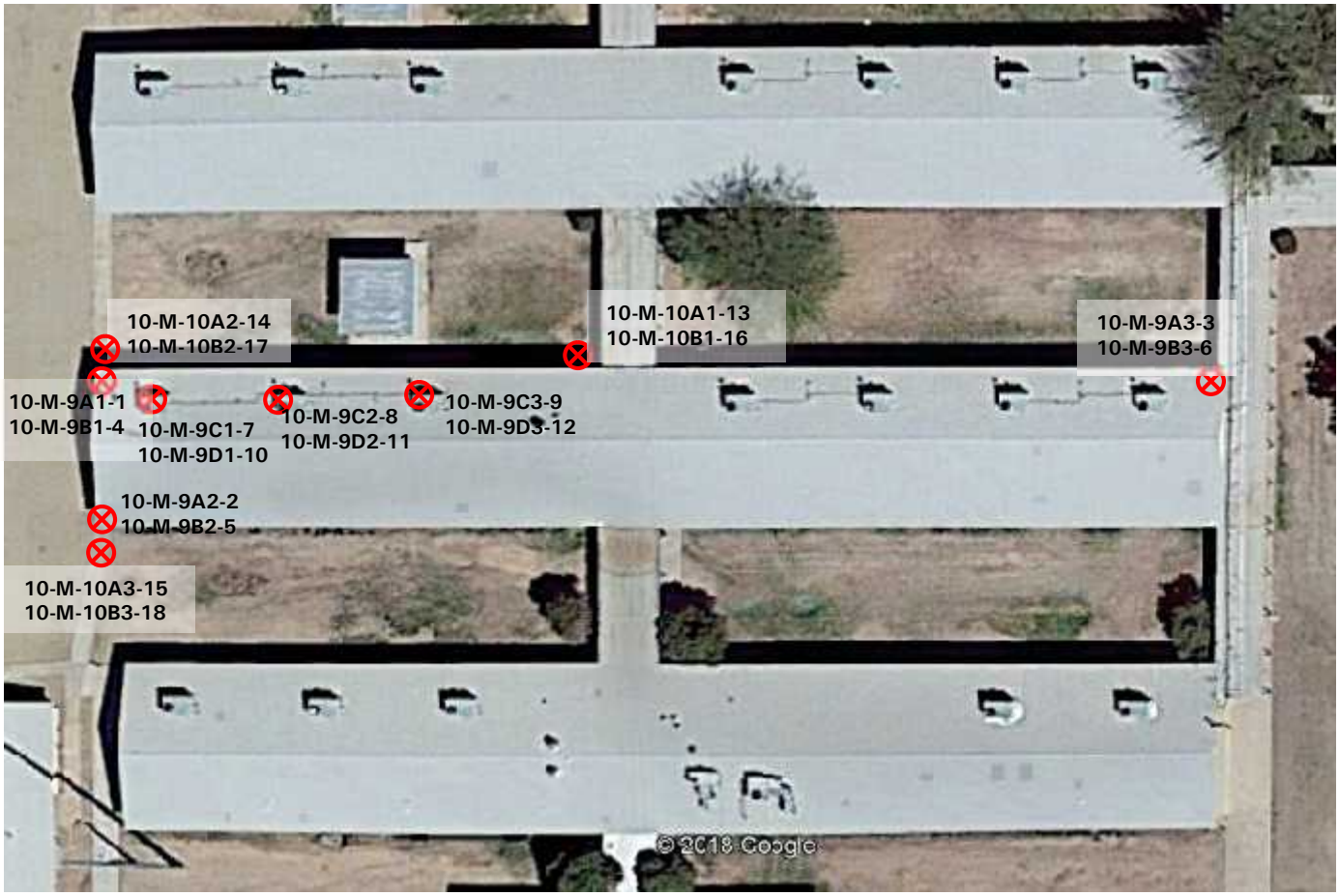
Larry S. Pierce, Approved Accreditation Signatory

APPENDIX F

FIGURE 6A – GENERAL SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 10 (RPA Building C)



LEGEND

⊗ General Sample Collection Location & Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 6A

FIGURE 6B – ASBESTOS CONTAINING BUILDING MATERIAL LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 10 (RPA Building C)

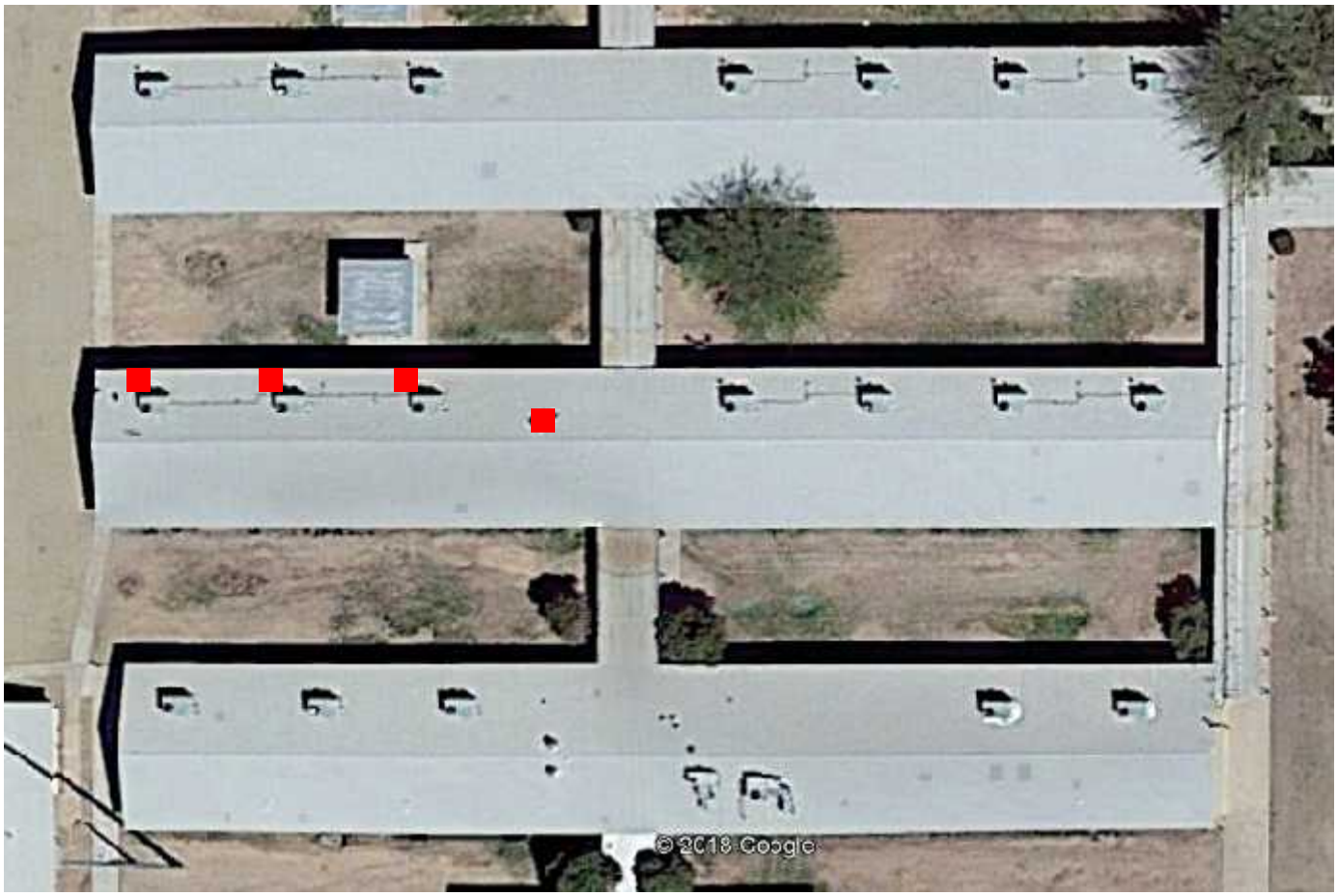


DIAGRAM NOT TO SCALE

LEGEND

- Sealant for Roof Penetrations (ACBM), Approximately 10 square feet

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 6B

TABLE 6
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 10 (RPA Building C)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
10-M-9A1-1, 9A2-2 and 9A3-3	Asphalt Shingles	Roof	NF	Misc	10,140	**NO**
10-M-9B1-4, 9B2-5 and 9B3-6	Felt	Roof	NF	Misc	10,140	**NO**
10-M-9C1-7, 9C2-8 and 9C3-9	Sealant (White, on HVAC)	Roof	NF	Misc	15	**NO**
10-M-9D1-10, 9D2-11 and 9D3-12	Sealant (Black, on roof penetrations)	Roof	NF	Misc	10	**YES**
10-M-10A1-13, 10A2-14 and 10A3-15	Concrete Block (4"x18")	Exterior Walls	NF	Misc	1,240	**NO**

TABLE 6
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 10 (RPA Building C)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
10-M-10B1-16, 10B2-17 and 10B3-18	Mortar (for concrete block)	Exterior Walls	NF	Misc	1,240	**NO**

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 10 + Bldg 11

HOMOGENEOUS MATERIAL: Asphalt Shingles

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 10-M-9A

TOTAL QUANTITY: SF: 10140 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Roof 10	Roof 10	Roof 11
Sample Origin	(NW) NE SW SE	NW NE (SW) SE	NW (NE) SW SE
E/W Location	off E	off E	off W
N/S Location	off S	off N	off S
Height ^ Floor	off →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

Samples for roof of Bldg 10 + Bldg 11

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 10 + Bldg 11

HOMOGENEOUS MATERIAL: ~~Asphalt~~ & Felt

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 10-M-98

TOTAL QUANTITY: SF: 10140 LF:

Sequential #	1 - 4	2 - 5	3 - 6
Location/FS	Roof →	→	→
Sample Origin	(NW) NE SW SE	NW NE (SW) SE	NW (NE) SW SE
E/W Location	off E	off E	off W
N/S Location	off S	off N	off S
Height ^ Floor	off →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 3 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 10

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 10-M-9C

TOTAL QUANTITY: SF: 15 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	Roof →	→	→
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	10ftE	26ftE	18ftW
N/S Location	6ftS	6ftS	6ftN
Height ^ Floor	0ft →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

White, Roof Penetration

On HVAC

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 4 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 10

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 10-M-9D

TOTAL QUANTITY: SF: 10 LF:

Sequential #	1 - 10	2 - 11	3 - 12
Location/FS	Roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW NE SW SE
E/W Location	8FtE	24FtE	
N/S Location	4FtS	4FtS	
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	5-10% →		
TYPE ASBESTOS	Chrysotile →		

NOTES

Black, Roof penetration

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 5 of 6

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 10

HOMOGENEOUS MATERIAL: Concrete

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: 10-M-10A

TOTAL QUANTITY: SF: 1240 LF:

Sequential #	1 - 13	2 - 14	3 - 15
Location/FS	Exterior walls	→	→
Sample Origin	NW (NE) SW SE	NW NE SW SE	NW NE (SW) SE
E/W Location	0ft W	0ft E	0ft E
N/S Location	0ft S	0ft S	0ft N
Height ^ Floor	4ft	6ft	5ft
Component	Wall	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND	→	→
TYPE ASBESTOS			

NOTES

Block 4"x8"

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 6 of 6.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 10

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: 10-M-10B

TOTAL QUANTITY: SF: 1240 Area LF:

Sequential #	1 - 16	2 - 17	3 - 18
Location/FS	Exterior Walls →		
Sample Origin	NW (NE) SW SE	(NW) NE SW SE	NW NE SW SE
E/W Location	Off N	Off E	Off E
N/S Location	Off S	Off S	Off N
Height ^ Floor	~~0~~ ft	6 ft	3 ft
Component	Walls →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

for Concrete Block

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME: AS Limited 2188JH269 NESHAP
PROJECT ADDRESS: 10000 N Cowel St, Eloy
WT JOB NO.: 2188JH269
PURCHASE ORDER NO.:
SAMPLER — SIGNATURE:
SAMPLER — PLEASE PRINT NAME: A. Smith
PROJECT MANAGER: Vicky Aviles
EMAIL ADDRESS:

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: X PLM	VOLUME / AREA	COMMENTS
10-M-9A 1-1	8/6/18		Building 10	1	X						X		asphalt shingles
2-2													
3-3													felt
10-M-9B 1-4													
2-5													
3-6													sealant (white)
10-M-9C 1-7													
2-8													
3-9													sealant (black)
10-M-9D 1-10													
2-11													
3-12													blocks
10-M-10A 1-13													
2-14													
3-15													mortar
10-M-10B 1-16													
2-17													
3-18													

Single layer Analysis

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE
[signature]	8/6/18	15:32	[signature]
RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY — SIGNATURE

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE
DATE	TIME		

REQUESTED TURNAROUND TIME
☒ 1-3 DAYS ☐ _____ HOURS

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

352 – 1993 Review of Analysis Request (Initials) EH

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807169

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737
FAX: (602) 470-1341

 # Samples: 18 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel St, Eloy **PO Number:**

Report Date: 8/8/2018 **Date Analyzed:** 8/8/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807169** 2188JH269 / 1000 N Curiel St, Eloy

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type * / *Asbestos Results*	Positive Layer Yes or No
Sample # 10-M-9A1-1			2018-07169- 1	Roofing	Positive Layer? No
Layer # 1	white	roofing roll/shingle		*no asbestos detected*	
Sample # 10-M-9A2-2			2018-07169- 2	Roofing	Positive Layer? No
Layer # 1	white	roofing roll/shingle		*no asbestos detected*	
Sample # 10-M-9A3-3			2018-07169- 3	Roofing	Positive Layer? No
Layer # 1	white	roofing roll/shingle		*no asbestos detected*	
Sample # 10-M-9B1-4			2018-07169- 4	Roofing	Positive Layer? No
Layer # 1	black	roof ply		*no asbestos detected*	
Sample # 10-M-9B2-5			2018-07169- 5	Roofing	Positive Layer? No
Layer # 1	black	roof ply		*no asbestos detected*	
Sample # 10-M-9B3-6			2018-07169- 6	Roofing	Positive Layer? No
Layer # 1	black	roof ply		*no asbestos detected*	
Sample # 10-M-9C1-7			2018-07169- 7	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 10-M-9C2-8			2018-07169- 8	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 10-M-9C3-9			2018-07169- 9	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 10-M-9D1-10			2018-07169- 10	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	sealant		*5-10% chrysotile asbestos*	
Sample # 10-M-9D2-11			2018-07169- 11	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	sealant		*5-10% chrysotile asbestos*	
Sample # 10-M-9D3-12			2018-07169- 12	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	sealant		*5-10% chrysotile asbestos*	
Sample # 10-M-10A1-13			2018-07169- 13	Cementitious	Positive Layer? No
Layer # 1	various	block		*no asbestos detected*	
Sample # 10-M-10A2-14			2018-07169- 14	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 10-M-10A3-15			2018-07169- 15	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 10-M-10B1-16			2018-07169- 16	Cementitious	Positive Layer? No
Layer # 1	off-white	mortar		*no asbestos detected*	
Sample # 10-M-10B2-17			2018-07169- 17	Cementitious	Positive Layer? No
Layer # 1	off-white	mortar		*no asbestos detected*	
Sample # 10-M-10B3-18			2018-07169- 18	Cementitious	Positive Layer? No
Layer # 1	off-white	mortar		*no asbestos detected*	

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample 10-M-9A1-1 **Lab Number** 2018-07169- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	white	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9A2-2 **Lab Number** 2018-07169- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	white	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9A3-3 **Lab Number** 2018-07169- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	white	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9B1-4 **Lab Number** 2018-07169- 4 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Mat
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	BI	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9B2-5 **Lab Number** 2018-07169- 5 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Mat
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	BI	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9B3-6 **Lab Number** 2018-07169- 6 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Mat
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	BI	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9C1-7 **Lab Number** 2018-07169- 7 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, mica/vermiculite, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9C2-8 **Lab Number** 2018-07169- 8 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, mica/vermiculite, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9C3-9 **Lab Number** 2018-07169- 9 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, mica/vermiculite, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9D1-10 **Lab Number** 2018-07169- 10 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9D2-11 **Lab Number** 2018-07169- 11 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-9D3-12 **Lab Number** 2018-07169- 12 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 10-M-10A1-13 **Lab Number** 2018-07169- 13 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	various	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 10-M-10A2-14 **Lab Number** 2018-07169- 14 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture/block filler.

Sample 10-M-10A3-15 **Lab Number** 2018-07169- 15 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture/block filler.

Sample 10-M-10B1-16 **Lab Number** 2018-07169- 16 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	off-white	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 10-M-10B2-17 **Lab Number** 2018-07169- 17 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	off-white	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

PLM Analysis Details **Job Number:** **201807169** 2188JH269 / 1000 N Curiel St, Eloy

Sample 10-M-10B3-18 **Lab Number** 2018-07169- 18 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	off-white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Uwe Steimle

Analyst: UWE .. STEIMLE

Printed: 08-Aug-18

Original Print Date: 08-Aug-18

Larry S. Pierce

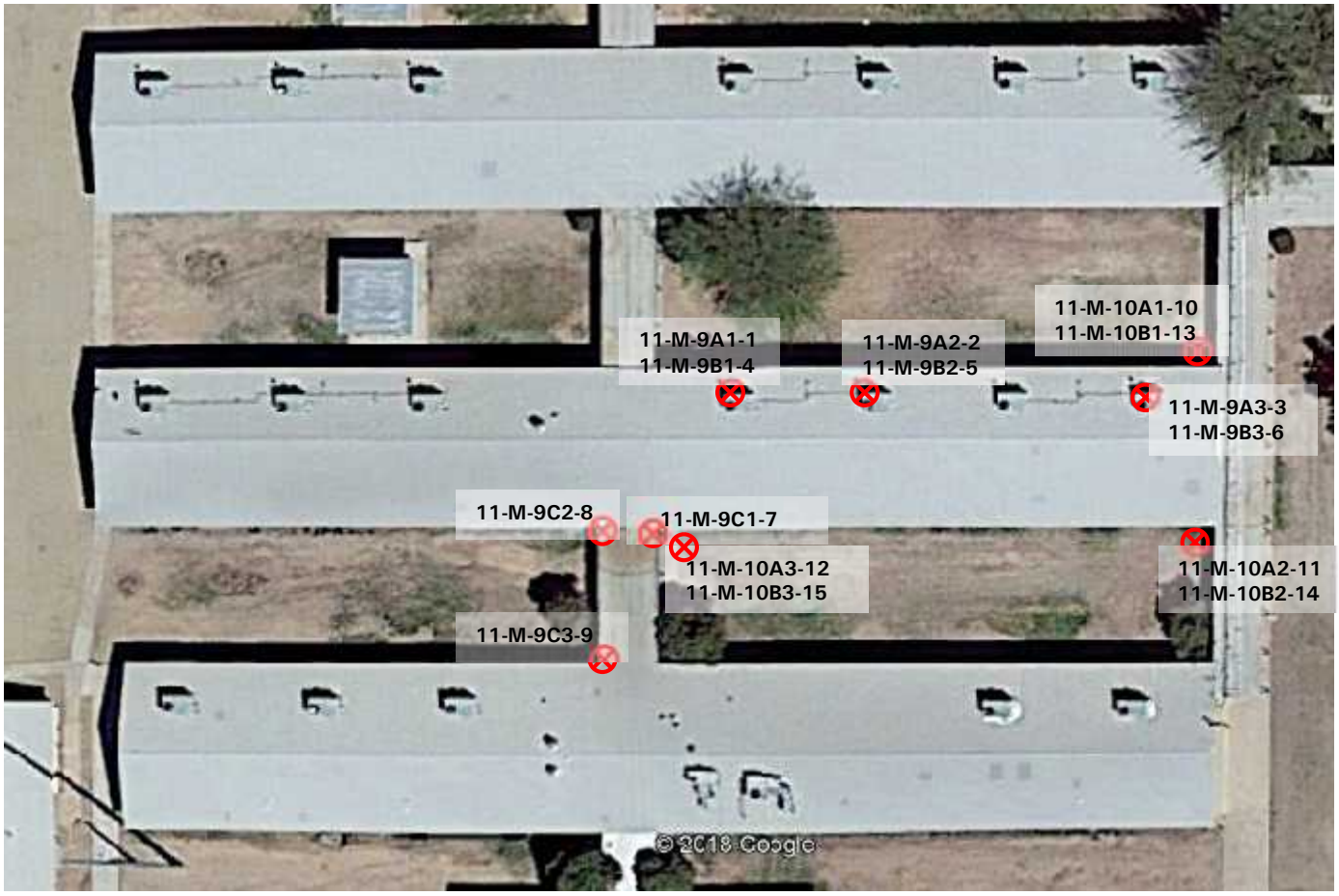
Larry S. Pierce, Approved Accreditation Signatory

APPENDIX G

FIGURE 7A – GENERAL SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 11 (RPA Building C)



LEGEND

⊗ General Sample Collection Location & Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 7

FIGURE 7B – ASBESTOS CONTAINING BUILDING MATERIAL LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 11 (RPA Building C)

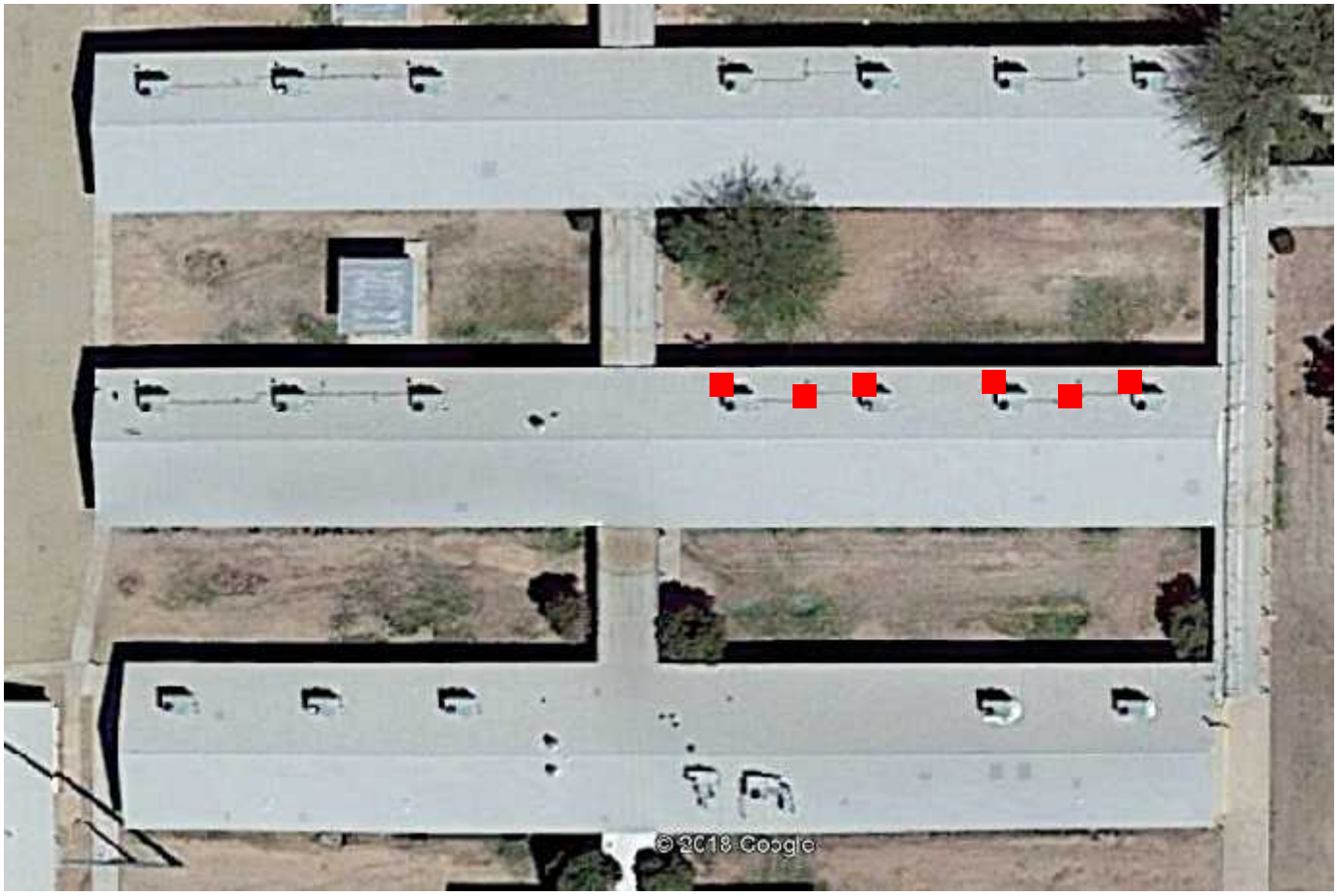


DIAGRAM NOT TO SCALE

LEGEND

- Sealant for Roof Penetrations (ACBM), Approximately 10 square feet

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 7B

TABLE 7
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 11 (RPA Building C)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
11-M-9A1-1, 9A2-2 and 9A3-3	Sealant (White, on HVAC)	Roof	NF	Misc	15	**NO**
11-M-9B1-4, 9B2-5 and 9B3-6	Sealant (Black, on roof penetrations)	Roof	NF	Misc	10	**YES**
11-M-9C1-7, 9C2-8 and 9C3-9	Rolled Saphalt	Breezway	NF	Misc	420	**NO**
11-M-10A1-10, 10A2-11 and 10A3-12	Concrete Block (4"x18")	Exterior Walls	NF	Misc	1,360	**NO**
11-M-10B1-13, 10B2-14 and 10B3-15	Mortar (for concrete block)	Exterior Walls	NF	Misc	1360 area	**NO**

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 5

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 11

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 11-M-9A

TOTAL QUANTITY: SF: 15 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	12ft E	28ft E	20ft W
N/S Location	6ft N	6ft N	6ft N
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

White, Roof penetration

On HVAC

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 2 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 11

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 11-M-9B

TOTAL QUANTITY: SF: 10 LF:

Sequential #	1 - 4	2 - 5	3 - 6
Location/FS	Roof →	→	→
Sample Origin	(NW) NE SW SE	NW NE SW SE	NW (NE) SW SE
E/W Location	12ftE	26ftE	72ftW
N/S Location	4ftN	4ftN	4ftN
Height ^ Floor	0ft →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	2-5% →	→	→
TYPE ASBESTOS	Chrysotile →	→	→

NOTES

Black, Roof penetration

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 3 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 11

HOMOGENEOUS MATERIAL: Rolled Asphalt

LOCATION BY FUNCTIONAL SPACE (FS): Breezway

SAMPLE NUMBER: 11-M-9C

TOTAL QUANTITY: SF: 420 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	Breezway →	→	→
Sample Origin	NW (NE) SW SE	(NW) NE SW SE	NW NE (SW) SE
E/W Location	off W	off E	off E
N/S Location	off S	off S	off N
Height ^ Floor	off →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS	ND →	→	→

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 11

HOMOGENEOUS MATERIAL: Concrete

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: 11-M-10A

TOTAL QUANTITY: SF: 360 LF:

Sequential #	1 - 10	2 - 11	3 - 12
Location/FS	Exterior walls →		
Sample Origin	NW (NE) SW SE	NW (NE) SW SE	NW NE (SW) SE
E/W Location	oft W	oft W	oft E
N/S Location	oft S	oft N	oft N
Height ^ Floor	3ft	4ft	6ft
Component	wall →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS	ND →		

NOTES

Block 4" x 8"

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 5 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 11

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): Exterior walls

SAMPLE NUMBER: 11-M-10B

TOTAL QUANTITY: SF: AS 1360 Area LF:

Sequential #	1 - 13	2 - 14	3 - 15
Location/FS	Exterior walls →		
Sample Origin	NW (NE) SW SE	NW NE SW (SE)	NW NE (SW) SE
E/W Location	0ft W	0ft W	0ft E
N/S Location	0ft S	0ft N	0ft N
Height ^ Floor	3ft	4ft	6ft
Component	Wall →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS	ND →		

NOTES

for concrete Block

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME: Limited NESHAP
PROJECT ADDRESS: 1000 N Cuirel St, Elon
PROJECT MANAGER: Vicky Aviles
WT JOB NO.: 2188JH269
PURCHASE ORDER NO.:
EMAIL ADDRESS:
SAMPLER – SIGNATURE:
SAMPLER – PLEASE PRINT NAME: A. Smith

Single layers Analysis

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
1- M-9A 1-1	08/06/18		Building 11	1	X						X		sealant (white)
2-2													
3-3													sealant (black)
1- M-9B 1-4													
2-5													
3-6													rolled asphalt
1- M-9C 1-7													
2-8													
3-9													blocks
1- M-10A 1-10													
2-11													
3-12													mortar
1- M-10B 1-13													
2-14													
3-15													
1- 1-16													
2-17													
3-18													

RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED BY – SIGNATURE
[signature]	8/6/18	15:32	[signature]
RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY – SIGNATURE

RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED BY – SIGNATURE

REQUESTED TURNAROUND TIME
☒ 1-3 DAYS ☐ _____ HOURS

Review of Analysis Request (Initials): EHA

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807170

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737

FAX: (602) 470-1341

 # Samples: 15 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel St, Eloy **PO Number:**

Report Date: 8/8/2018 **Date Analyzed:** 8/8/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that

analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807170** 2188JH269 / 1000 N Curiel St, Eloy

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type * / *Asbestos Results*	Positive Layer Yes or No
Sample # 11-M-9A1-1 Layer # 1	off-white	sealant	2018-07170- 1	Adhesive/caulk *no asbestos detected*	Positive Layer? No
Sample # 11-M-9A2-2 Layer # 1	off-white	sealant	2018-07170- 2	Adhesive/caulk *no asbestos detected*	Positive Layer? No
Sample # 11-M-9A3-3 Layer # 1	off-white	sealant	2018-07170- 3	Adhesive/caulk *no asbestos detected*	Positive Layer? No
Sample # 11-M-9B1-4 Layer # 1	black	sealant	2018-07170- 4	Adhesive/caulk *2-5% chrysotile asbestos*	Positive Layer? Yes
Sample # 11-M-9B2-5 Layer # 1	black	sealant	2018-07170- 5	Adhesive/caulk *2-5% chrysotile asbestos*	Positive Layer? Yes
Sample # 11-M-9B3-6 Layer # 1	black	sealant	2018-07170- 6	Adhesive/caulk *2-5% chrysotile asbestos*	Positive Layer? Yes
Sample # 11-M-9C1-7 Layer # 1	black	roofing roll/shingle	2018-07170- 7	Roofing *no asbestos detected*	Positive Layer? No
Sample # 11-M-9C2-8 Layer # 1	black	roofing roll/shingle	2018-07170- 8	Roofing *no asbestos detected*	Positive Layer? No
Sample # 11-M-9C3-9 Layer # 1	black	roofing roll/shingle	2018-07170- 9	Roofing *no asbestos detected*	Positive Layer? No
Sample # 11-M-10A1-10 Layer # 1	gray	block	2018-07170- 10	Miscellaneous *no asbestos detected*	Positive Layer? No
Sample # 11-M-10A2-11 Layer # 1	gray	block	2018-07170- 11	Miscellaneous *no asbestos detected*	Positive Layer? No
Sample # 11-M-10A3-12 Layer # 1	gray	block	2018-07170- 12	Miscellaneous *no asbestos detected*	Positive Layer? No
Sample # 11-M-10B1-13 Layer # 1	gray	mortar	2018-07170- 13	Miscellaneous *no asbestos detected*	Positive Layer? No
Sample # 11-M-10B2-14 Layer # 1	gray	mortar	2018-07170- 14	Miscellaneous *no asbestos detected*	Positive Layer? No
Sample # 11-M-10B3-15 Layer # 1	gray	mortar	2018-07170- 15	Miscellaneous *no asbestos detected*	Positive Layer? No

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample 11-M-9A1-1 **Lab Number** 2018-07170- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder, mica/vermiculite

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	off-white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 11-M-9A2-2 **Lab Number** 2018-07170- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder, mica/vermiculite

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	off-white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 11-M-9A3-3 **Lab Number** 2018-07170- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder, mica/vermiculite

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	off-white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 11-M-9B1-4 **Lab Number** 2018-07170- 4 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): filler, binder, mica/vermiculite

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	2-5%	>1-2%	-	-	-	-
	Total %	100		Overall %	2-5%	>1-2%	-	-	-	-
				Fiber Identification:	chrysotile asbestos	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	sb/o	1.556	1.553
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note
Surface is off-white. Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 11-M-9B2-5 **Lab Number** 2018-07170- 5 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): filler, binder, mica/vermiculite

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	2-5%	>1-2%	-	-	-	-
	Total %	100		Overall %	2-5%	>1-2%	-	-	-	-
				Fiber Identification:	chrysotile asbestos	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	sb/o	1.556	1.553
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note
Surface is off-white and tan. Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 11-M-9B3-6 **Lab Number** 2018-07170- 6 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): filler, binder, mica/vermiculite

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	2-5%	>1-2%	-	-	-	-
	Total %	100		Overall %	2-5%	>1-2%	-	-	-	-
				Fiber Identification:	chrysotile asbestos	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	sb/o	1.556	1.553
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note
Surface is off-white and tan. Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 11-M-9C1-7 **Lab Number** 2018-07170- 7 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 11-M-9C2-8 **Lab Number** 2018-07170- 8 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 11-M-9C3-9 **Lab Number** 2018-07170- 9 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 11-M-10A1-10 **Lab Number** 2018-07170- 10 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Sample 11-M-10A2-11 **Lab Number** 2018-07170- 11 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Sample 11-M-10A3-12 **Lab Number** 2018-07170- 12 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Sample 11-M-10B1-13 **Lab Number** 2018-07170- 13 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Sample 11-M-10B2-14 **Lab Number** 2018-07170- 14 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Sample 11-M-10B3-15 **Lab Number** 2018-07170- 15 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Galina B. Volkova

Analyst: GALINA B. VOLKOVA

Printed: 08-Aug-18

Original Print Date: 08-Aug-18

Larry S. Pierce, Approved Accreditation Signatory

APPENDIX H

FIGURE 8A – GENERAL SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 12 (RPA Building D)

LEGEND

⊗ General Sample Collection Location & Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar and window glazing. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 8A

FIGURE 8B – ASBESTOS CONTAINING BUILDING MATERIAL LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 12 (RPA Building D)

DIAGRAM NOT TO SCALE

LEGEND

- Sealant for Roof Penetrations (ACBM), Approximately 10 square feet

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 8B

TABLE 8
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 12 (RPA Building D)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
12-M-9A1-1, 9A2-2 and 9A3-3	Asphalt Shingles	Roof	NF	Misc	10,140	**NO**
12-M-9B1-4, 9B2-5 and 9B3-6	Felt	Roof	NF	Misc	10,140	**NO**
12-M-9C1-7, 9C2-8 and 9C3-9	Sealant (White, on HVAC)	Roof	NF	Misc	15	**NO**
12-M-9D1-10, 9D2-11 and 9D3-12	Sealant (Black, on Roof Penetrations)	Roof	NF	Misc	10	**YES**
12-M-10A1-13, 10A2-14 and 10A3-15	Concrete Block (4"x18")	Exterior Walls	NF	Misc	1,240	**NO**

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 12+13

HOMOGENEOUS MATERIAL: Asphalt Shingles

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 12-M-9A

TOTAL QUANTITY: SF: 10140 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Roof 12	~~Roof 12~~	~~Roof~~ 13
Sample Origin	(NW) NE SW SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	Off E	Off W	Off W
N/S Location	Off S	Off S	Off N
Height ^ Floor	Off →	→	→
Component	Floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

Samples for roof of Bldg 12 + Bldg 13

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 2 of 7

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 12 + Bldg 13

HOMOGENEOUS MATERIAL: Felt

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 12-M-9B

TOTAL QUANTITY: SF: 10140 LF:

Sequential #	1 - 4	2 - 5	3 - 6
Location/FS	Roof →	→	→
Sample Origin	(NW) NE SW SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	Offe	Offw	Offw
N/S Location	Offs	Offs	Offw
Height ^ Floor	Off →	→	→
Component	Floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

Samples for Roof of Bldg 12 + Bldg 13

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 3 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 12

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 12-M-9C

TOTAL QUANTITY: SF: 15 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	Roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	10ft E	21ft E	18ft W
N/S Location	6ft S	6ft S	6ft S
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

White Roof penetration On HVAC

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 4 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 12

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 12-M-9D

TOTAL QUANTITY: SF: 10 LF:

Sequential #	1 - 10	2 - 11	3 - 12
Location/FS	Roof →	→	→
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	10ft W	20ft E	20ft W
N/S Location	2ft S	4ft S	4ft S
Height ^ Floor	0ft →	→	→
Component	Floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	2-5% →	→	→
TYPE ASBESTOS	Chrysotile →	→	→

NOTES
Black, Roof penetration

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 5 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 12

HOMOGENEOUS MATERIAL: Concrete

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: 12-M-10A

TOTAL QUANTITY: SF: 1240 LF:

Sequential #	1 - 13	2 - 14	3 - 15
Location/FS	Exterior walls →	→	→
Sample Origin	NW NE SW (SE) AB	NW (NE) SW SE	NW NE SW (SE)
E/W Location	Off E	Off W	Off W
N/S Location	Off S	Off S	Off N
Height ^ Floor	5ft	6ft	5ft
Component	Wall →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

Block 4" x 8"

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 6 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 12

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): Exterior walls

SAMPLE NUMBER: 12-M-10B

TOTAL QUANTITY: SF: 1240 area LF:

Sequential #	1 - 16	2 - 17	3 - 18
Location/FS	Exterior walls →		
Sample Origin	(NW) NE SW SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	0ft E	0ft W	0ft W
N/S Location	0ft S	0ft S	0ft N
Height ^ Floor	5ft	6ft	5ft
Component	Wall →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES: for concrete block

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 7 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 12

HOMOGENEOUS MATERIAL: Window Glazing

LOCATION BY FUNCTIONAL SPACE (FS): Exterior walls

SAMPLE NUMBER: 12-M-10C

TOTAL QUANTITY: SF: 20 LF:

Sequential #	1 - 19	2 - 20	3 - 21
Location/FS	Exterior walls →		
Sample Origin	NW NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	4ftE	10ftW	8ftW
N/S Location	0ftS	0ftS	0ftN
Height ^ Floor	5ft	6ft	6ft
Component	walls →		
Friable	Yes No	Yes No	Yes No
Condition	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.
Accessibility	None Rare O&M General	None Rare O&M General	None Rare O&M General
Activity Level	L M H	L M H	L M H
Disturbance Potential	L/N PD PSD	L/N PD PSD	L/N PD PSD
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME	PROJECT ADDRESS	PROJECT MANAGER
Limited NESHAP	1000N Curiel St, Elay	Vicky Aviles
WT JOB NO.	PURCHASE ORDER NO.	EMAIL ADDRESS
2188JH269		
SAMPLER – SIGNATURE	SAMPLER – PLEASE PRINT NAME	
[signature]	A. Smith	Single layer Analysis

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
12-M-9A 1-1	08/04/18		Building 12	1	X						X		asphalt shingles
2-2	↓		↓	↓	↓						↓		↓
3-3													felt
12-M-9B 1-4													↓
2-5													
3-6													sealant (white)
12-M-9C 1-7													↓
2-8													
3-9													sealant (black)
12-M-9D 1-10													↓
2-11													
3-12													~~concrete~~ black
12-M-10A 1-13													tps
2-14													↓
3-15													
12-M-10B 1-16													mortar
2-17													↓
3-18	↓		↓	↓	↓						↓		↓

RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED BY – SIGNATURE	RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED BY – SIGNATURE
[signature]	8/6/18	15:32	[signature]				
RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY – SIGNATURE	DATE	TIME	REQUESTED TURNAROUND TIME	
			[signature]			☒ 1-3 DAYS ☐ ____ HOURS	

Review of Analysis Request (Initials) EHA

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME	PROJECT ADDRESS	PROJECT MANAGER
Limited NESHAP	1000 N Curel St, Eloy	Vicky Awles
WT JOB NO.	PURCHASE ORDER NO.	EMAIL ADDRESS
2188JH269		
SAMPLER – *SIGNATURE*	SAMPLER – *PLEASE PRINT NAME*	
[signature]	A. Smith	Single layer Analysis

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
12M-10C1-19	08/04/18		Building 12	1	X						X		window glazing
10C2-20	↓		↓	↓	↓						↓		↓
10C3-21	↓		↓	↓	↓						↓		↓

RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED BY – *SIGNATURE*	RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED BY – *SIGNATURE*
[signature]	8/6/18	15:32	[signature]				
RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED FOR LABORATORY BY – *SIGNATURE*	DATE	TIME		

REQUESTED TURNAROUND TIME
☒ 1-3 DAYS ☐ _____ HOURS

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807171

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737
FAX: (602) 470-1341

 # Samples: 21 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel St, Eloy **PO Number:**

Report Date: 8/8/2018 **Date Analyzed:** 8/8/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807171** 2188JH269 / 1000 N Curiel St, Eloy

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type * / *Asbestos Results*	Positive Layer Yes or No
Sample # 12-M-9A1-1			2018-07171- 1	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 12-M-9A2-2			2018-07171- 2	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 12-M-9A3-3			2018-07171- 3	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 12-M-9B1-4			2018-07171- 4	Roofing	Positive Layer? No
Layer # 1	black	roof ply		*no asbestos detected*	
Sample # 12-M-9B2-5			2018-07171- 5	Roofing	Positive Layer? No
Layer # 1	black	roof ply		*no asbestos detected*	
Sample # 12-M-9B3-6			2018-07171- 6	Roofing	Positive Layer? No
Layer # 1	black	roof ply		*no asbestos detected*	
Sample # 12-M-9C1-7			2018-07171- 7	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 12-M-9C2-8			2018-07171- 8	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 12-M-9C3-9			2018-07171- 9	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 12-M-9D1-10			2018-07171- 10	Roofing	Positive Layer? Yes
Layer # 1	black	caulk		*2-5% chrysotile asbestos*	
Sample # 12-M-9D2-11			2018-07171- 11	Roofing	Positive Layer? Yes
Layer # 1	black	caulk		*2-5% chrysotile asbestos*	
Sample # 12-M-9D3-12			2018-07171- 12	Roofing	Positive Layer? Yes
Layer # 1	black	caulk		*2-5% chrysotile asbestos*	
Sample # 12-M-10A1-13			2018-07171- 13	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 12-M-10A2-14			2018-07171- 14	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 12-M-10A3-15			2018-07171- 15	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 12-M-10B1-16			2018-07171- 16	Cementitious	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	
Sample # 12-M-10B2-17			2018-07171- 17	Cementitious	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	
Sample # 12-M-10B3-18			2018-07171- 18	Cementitious	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	
Sample # 12-M-10C1-19			2018-07171- 19	Adhesive/caulk	Positive Layer? No
Layer # 1	white	putty		*no asbestos detected*	
Sample # 12-M-10C2-20			2018-07171- 20	Adhesive/caulk	Positive Layer? No
Layer # 1	gray	putty		*<=1% chrysotile asbestos*	
Sample # 12-M-10C3-21			2018-07171- 21	Adhesive/caulk	Positive Layer? No
Layer # 1	white	putty		*no asbestos detected*	

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample 12-M-9A1-1 **Lab Number** 2018-07171- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-9A2-2 **Lab Number** 2018-07171- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: black caulk.

Sample 12-M-9A3-3 **Lab Number** 2018-07171- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		Overall %	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-9B1-4 **Lab Number** 2018-07171- 4 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-9B2-5 **Lab Number** 2018-07171- 5 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-9B3-6 **Lab Number** 2018-07171- 6 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	60-70%	-	-	-	-	-
	Total %	100		**Overall %**	60-70%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-9C1-7 **Lab Number** 2018-07171- 7 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): polymer, mica/vermiculite, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-9C2-8 **Lab Number** 2018-07171- 8 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): polymer, mica/vermiculite, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-9C3-9 **Lab Number** 2018-07171- 9 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): polymer, mica/vermiculite, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-9D1-10 **Lab Number** 2018-07171- 10 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-9D2-11 **Lab Number** 2018-07171- 11 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-9D3-12 **Lab Number** 2018-07171- 12 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	caulk	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-10A1-13 **Lab Number** 2018-07171- 13 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 12-M-10A2-14 **Lab Number** 2018-07171- 14 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 12-M-10A3-15 **Lab Number** 2018-07171- 15 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 12-M-10B1-16 **Lab Number** 2018-07171- 16 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 12-M-10B2-17 **Lab Number** 2018-07171- 17 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 12-M-10B3-18 **Lab Number** 2018-07171- 18 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample 12-M-10C1-19 **Lab Number** 2018-07171- 19 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	putty	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-10C2-20 **Lab Number** 2018-07171- 20 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	putty	100	gray	1	<=1%	-	-	-	-	-
	Total %	100		Overall %	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 12-M-10C3-21 **Lab Number** 2018-07171- 21 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By MAC 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	putty	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Analyst: MICHAEL A. COOK

Printed: 08-Aug-18

Original Print Date: 08-Aug-18

Larry S. Pierce, Approved Accreditation Signatory

TABLE 8
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 12 (RPA Building D)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
12-M-10B1-16, 10B2-17 and 10B3-18	Mortar (for concrete block)	Exterior Walls	NF	Misc	1240 area	**NO**

APPENDIX I

FIGURE 9A – GENERAL SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 13 (RPA Building D)

LEGEND

⊗ General Sample Collection Location & Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar and window glazing. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 9A

FIGURE 9B – ASBESTOS CONTAINING BUILDING MATERIAL LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 13 (RPA Building D)

DIAGRAM NOT TO SCALE

LEGEND

Sealant for Roof Penetrations (ACBM), Approximately 10 square feet

N

Reviewed: V. Aviles	Date: 08-06-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 9B

TABLE 9
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 13 (RPA Building D)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
13-M-9A1-1, 9A2-2 and 9A3-3	Sealant (White, on HVAC)	Roof	NF	Misc	15	**NO**
13-M-9B1-4, 9B2-5 and 9B3-6	Sealant (Black, on roof penetrations)	Roof	NF	Misc	10	**YES**
13-M-10A1-7, 10A2-8 and 10A3-9	Concrete Block (4"x18")	Exterior Walls	NF	Misc	1,360	**NO**
13-M-10B1-10, 10B2-11 and 10B3-12	Mortar (for concrete block)	Exterior Walls	NF	Misc	1360 area	**NO**
13-M-10C1-13, 10C2-14 and 10C3-15	Window Glazing	Exterior Walls	NF	Misc	20	**NO**

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 5

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 13

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 13-M-9A

TOTAL QUANTITY: SF: 15 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Roof →		
Sample Origin	NW (NE) SW SE	NW NE SW SE	NW NE SW SE
E/W Location	14ftw	14ftw	24ftw
N/S Location	6fts	4fts	6fts
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

White, Roof Penetration

On HVAC

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 2 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 13

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 13-M-9B

TOTAL QUANTITY: SF: 10 LF:

Sequential #	1 - 4	2 - 5	3 - 6
Location/FS	Roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	(NW) NE SW SE
E/W Location	10ftE	4ftE	4ftE
N/S Location	0ft S	8ft S	10ft S
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	2-5% →		
TYPE ASBESTOS	Chrysotile →		

NOTES

Black, Roof penetration

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 3 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 13

HOMOGENEOUS MATERIAL: Concrete Blocks

LOCATION BY FUNCTIONAL SPACE (FS): Exterior walls

SAMPLE NUMBER: 13-M-10A

TOTAL QUANTITY: SF: 1300 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	Exterior walls →		
Sample Origin	NW NE (SW) SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	Off E	Off E	Off W
N/S Location	Off N	Off S	Off S
Height ^ Floor	6ft	6ft	4ft
Component	Wall →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS	ND →		

NOTES

Block 4" x 13 5/8

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 4 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 13

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): Exterior walls

SAMPLE NUMBER: 13-M-10B

TOTAL QUANTITY: SF: 1360 area LF:

Sequential #	1 - 10	2 - 11	3 - 12
Location/FS	Exterior walls →		
Sample Origin	NW NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	off E	off E	off E
N/S Location	off N	off S	off S
Height ^ Floor	5ft	6ft	4ft
Component	Wall →		
Friable	Yes No	Yes No	Yes No
Condition	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.
Accessibility	None Rare O&M General	None Rare O&M General	None Rare O&M General
Activity Level	L M H	L M H	L M H
Disturbance Potential	L/N PD PSD	L/N PD PSD	L/N PD PSD
% ASBESTOS	ND →		
TYPE ASBESTOS	ND →		

NOTES

for concrete Block

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 5 of 5.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 13

HOMOGENEOUS MATERIAL: Window Glazing

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: 13-M-10C

TOTAL QUANTITY: SF: 20 LF:

Sequential #	1 - 13	2 - 14	3 - 15
Location/FS	Exterior walls →		
Sample Origin	NW NE (SW) SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	8ft E	20ft E	10ft W
N/S Location	0ft N	0ft S	0ft S
Height ^ Floor	6ft	8ft	8ft
Component	Wall →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS	ND →		

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME	PROJECT ADDRESS	PROJECT MANAGER
Cimfab NESHAP	1000 N Currel St, Eloy	Vicky Aviles
WT JOB NO.	PURCHASE ORDER NO.	EMAIL ADDRESS
2188JH269		
SAMPLER – SIGNATURE	SAMPLER – PLEASE PRINT NAME	
[signature]	A. Smith	

Single layer Analysis

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
13-M-9A1-1	08/04/18		Building 13	1	X						X		sealant (white)
9A2-2													↓
9A3-3													sealant (black)
13-M-9B1-4													↓
9B2-5													blocks
9B3-6													↓
13-M-10A1-7													mortar
10A2-8													↓
10A3-9													window glazing
13-M-10B1-10													↓
10B2-11													
10B3-12													
13-M-10C1-13													
10C2-14													
10C3-15	↓		↓	↓	↓						↓		

RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED BY – SIGNATURE
[signature]	8/6/18	15:32	[signature]
RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY – SIGNATURE
			[signature]

RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED BY – SIGNATURE

REQUESTED TURNAROUND TIME
☒ 1-3 DAYS ☐ _____ HOURS

Sample Receipt Initials: [initials]

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

1 / 1

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807167

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737

FAX: (602) 470-1341

 # Samples: 15 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel St, Eloy **PO Number:**

Report Date: 8/8/2018 **Date Analyzed:** 8/8/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that

analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807167** 2188JH269 / 1000 N Curiel St, Eloy

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type * / *Asbestos Results*	Positive Layer Yes or No
Sample # 13-M-9A1-1			2018-07167- 1	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 13-M-9A2-2			2018-07167- 2	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 13-M-9A3-3			2018-07167- 3	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # 13-M-9B1-4			2018-07167- 4	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	sealant		*2-5% chrysotile asbestos*	
Sample # 13-M-9B2-5			2018-07167- 5	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	sealant		*2-5% chrysotile asbestos*	
Sample # 13-M-9B3-6			2018-07167- 6	Adhesive/caulk	Positive Layer? Yes
Layer # 1	black	sealant		*2-5% chrysotile asbestos*	
Sample # 13-M-10A1-7			2018-07167- 7	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 13-M-10A2-8			2018-07167- 8	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 13-M-10A3-9			2018-07167- 9	Cementitious	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 13-M-10B1-10			2018-07167- 10	Cementitious	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	
Sample # 13-M-10B2-11			2018-07167- 11	Cementitious	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	
Sample # 13-M-10B3-12			2018-07167- 12	Cementitious	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	
Sample # 13-M-10C1-13			2018-07167- 13	Adhesive/caulk	Positive Layer? No
Layer # 1	off-white	sealant		*<=1% chrysotile asbestos*	
Sample # 13-M-10C2-14			2018-07167- 14	Adhesive/caulk	Positive Layer? No
Layer # 1	gray	sealant		*<=1% chrysotile asbestos*	
Sample # 13-M-10C3-15			2018-07167- 15	Adhesive/caulk	Positive Layer? No
Layer # 1	gray	sealant		*<=1% chrysotile asbestos*	

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample 13-M-9A1-1 **Lab Number** 2018-07167- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, polymer, mica/vermiculite

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 13-M-9A2-2 **Lab Number** 2018-07167- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, polymer, mica/vermiculite

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 13-M-9A3-3 **Lab Number** 2018-07167- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, polymer, mica/vermiculite

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 13-M-9B1-4 **Lab Number** 2018-07167- 4 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 13-M-9B2-5 **Lab Number** 2018-07167- 5 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 13-M-9B3-6 **Lab Number** 2018-07167- 6 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes
Non-Fibrous Components (in approx. decreasing order): bitumen, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	2-5%	-	-	-	-	-
	Total %	100		Overall %	2-5%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 13-M-10A1-7 **Lab Number** 2018-07167- 7 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 13-M-10A2-8 **Lab Number** 2018-07167- 8 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 13-M-10A3-9 **Lab Number** 2018-07167- 9 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 13-M-10B1-10 **Lab Number** 2018-07167- 10 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 13-M-10B2-11 **Lab Number** 2018-07167-11 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 13-M-10B3-12 **Lab Number** 2018-07167-12 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: At client request, this sample was analyzed as a 'single layer', i.e., the only layer analyzed is the type of material listed on the chain of custody or other paperwork. However, this sample was found to contain the following other suspect material types, which are noted here to ensure that the client is aware of their presence and can act accordingly: texture.

Sample 13-M-10C1-13 **Lab Number** 2018-07167- 13 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	off-white	1	<=1%	-	-	-	-	-
	Total %	100		Overall %	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 13-M-10C2-14 **Lab Number** 2018-07167- 14 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	gray	1	<=1%	-	-	-	-	-
	Total %	100		Overall %	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 13-M-10C3-15 **Lab Number** 2018-07167- 15 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By JCJ 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	gray	1	<=1%	-	-	-	-	-
	Total %	100		Overall %	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Analyst: JASON C. JEDNAK

Printed: 08-Aug-18
Original Print Date: 08-Aug-18

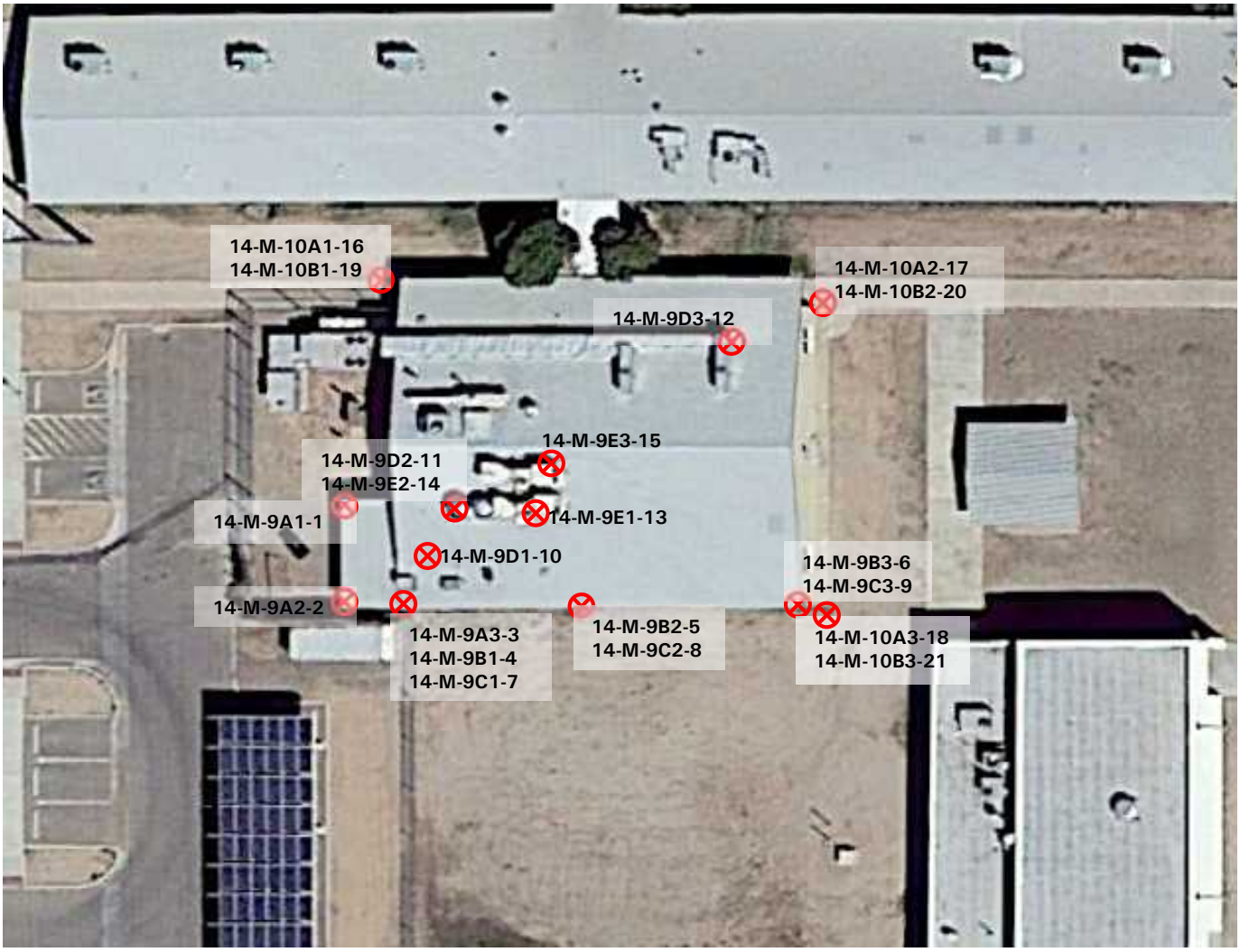
Larry S. Pierce, Approved Accreditation Signatory

APPENDIX J

FIGURE 10 – GENERAL SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

BUILDING 14 (RPA Building F)



LEGEND

⊗ General Sample Collection Location & Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-5-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 10

TABLE 10
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 14 (RPA Building F)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
14-M-9A1-1, 9A2-2 and 9A3-3	Rolled Asphalt	Overhang	NF	Misc	312	**NO**
14-M-9B1-4, 9B2-5 and 9B3-6	Asphalt Shingle	Roof	NF	Misc	5,950	**NO**
14-M-9C1-7, 9C2-8 and 9C3-9	Felt	Roof	NF	Misc	5,950	**NO**
14-M-9D1-10, 9D2-11 and 9D3-12	Sealant (Black, on roof penetrations)	Roof	NF	Misc	10	**NO**
14-M-9E1-13, 9E2-14 and 9E3-15	Sealant (White, on HVAC)	Roof	NF	Misc	15	**NO**

TABLE 10
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Building 14 (RPA Building F)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
14-M-10A1-16, 10A2-17 and 10A3-18	Concrete Block (4"x18")	Exterior Walls	NF	Misc	2,480	**NO**
14-M-10B1-19, 10B2-20 and 10B3-21	Mortar (for concrete block)	Exterior Walls	NF	Misc	2480 area	**NO**

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955
wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg K1

HOMOGENEOUS MATERIAL: Rolled Asphalt

LOCATION BY FUNCTIONAL SPACE (FS): Roofs Over Hang

SAMPLE NUMBER: 14-M-9A

TOTAL QUANTITY: SF: 312 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Overhang →	→	→
Sample Origin	(NW) NE SW SE	NW NE (SW) SE	NW NE SW (SE)
E/W Location	Off E	Off E	Off W
N/S Location	Off S	Off N	Off N
Height ^ Floor	Off	Off	Off
Component	Roof →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 2 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 14

HOMOGENEOUS MATERIAL: 14-M-~~AB~~ Asphalt Shingle

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: ~~Asbestos~~ AS 14-M-AB

TOTAL QUANTITY: SF: 5950 LF:

Sequential #	1 - 4	2 - 5	3 6
Location/FS	Roof →		
Sample Origin	NW NE (SW) SE	NW NE (SW) SE	NW NE SW (SE)
E/W Location	0ftE	40ftE	0ftW
N/S Location	0ftN	0ftN	0ftN
Height ^ Floor	0ft →		
Component	Floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page AS3 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 14

HOMOGENEOUS MATERIAL: Felt

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 14-M-9C

TOTAL QUANTITY: SF: 5950 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	Roof →	→	→
Sample Origin	NW NE (SW) SE	NW NE (SW) SE	NW NE SW (SE)
E/W Location	Off E	Off E	Off W
N/S Location	Off N	Off N	Off N
Height ^ Floor	Off →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 4 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 14

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: ~~AS~~ 14-M-9D

TOTAL QUANTITY: SF: 10 LF:

Sequential #	1 - 10	2 - 11	3 - 12
Location/FS	Roof	→	→
Sample Origin	NW NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	10'E	20'E	10'W
N/S Location	10'N	15'N	20'S
Height ^ Floor	0ft	→	→
Component	Floor	→	→
Friable	Yes No	Yes No	Yes No
Condition	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.
Accessibility	None Rare O&M General	None Rare O&M General	None Rare O&M General
Activity Level	L M H	L M H	L M H
Disturbance Potential	L/N PD PSD	L/N PD PSD	L/N PD PSD
% ASBESTOS	ND	→	→
TYPE ASBESTOS			

NOTES

Black Roof penetration

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 5 of 7.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 14

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: 14-M-9E

TOTAL QUANTITY: SF: 15 LF:

Sequential #	1 - 13	2 - 14	3 - 15
Location/FS	Roof →	→	→
Sample Origin	NW NE (SW) SE	NW NE (SW) SE	NW NE (SW) SE
E/W Location	25'E	15'E	~~30'W~~ 20'E
N/S Location	20'N	25'N	30'N
Height ^ Floor	Ø ft →	→	→
Component	floor →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	~~Good~~ Damaged Sig. Dam.	~~Good~~ Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

White, On HVAC

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 6 of 7

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg H

HOMOGENEOUS MATERIAL: Concrete

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: K-M-10A

TOTAL QUANTITY: SF: 2486 LF:

Sequential #	1 - 16	2 - 17	3 - 18
Location/FS	Exterior walls		
Sample Origin	NW NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	0ft E	0ft W	0ft W
N/S Location	0ft S	0ft S	0ft N
Height ^ Floor	4ft	5ft	4ft
Component	Wall		
Friable	Yes No	Yes No	Yes No
Condition	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.
Accessibility	None Rare O&M General	None Rare O&M General	None Rare O&M General
Activity Level	L M H	L M H	L M H
Disturbance Potential	L/N PD PSD	L/N PD PSD	L/N PD PSD
% ASBESTOS	ND		
TYPE ASBESTOS			

NOTES

Block 6"x18"

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☒ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 2 of 2.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Bldg 14

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: 14-M-10B

TOTAL QUANTITY: SF: 2480 area LF:

Sequential #	1 - 19	2 - 20	3 - 21
Location/FS	Exterior walls	→	→
Sample Origin	NW (NE) SW SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	Oft E	Oft W	Oft W
N/S Location	Oft S	Oft S	Oft N
Height ^ Floor	2ft	5ft	4ft
Component	wall	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND	→	→
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☑ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature]

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME	PROJECT ADDRESS	PROJECT MANAGER
Limited NESHAP	1000 N Curiel St, Eloy	Vicky Ables
WT JOB NO.	PURCHASE ORDER NO.	EMAIL ADDRESS
2188SH2C69		
SAMPLER — SIGNATURE	SAMPLER — PLEASE PRINT NAME	
	A. Smith	Single layer Analysis

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
14-M-9A1-1	9/06/18		Building 14	1	X						X		rolled asphalt
9A2-2													↓
9A3-3													asphalt shingle
14-M-9D1-4													↓
9D2-5													felt
9D3-6													↓
14-M-9C1-7													sealant (black)
9C2-8													↓
9C3-9													sealant (white)
14-M-9D1-10													↓
9D2-11													blocks
9D3-12													↓
14-M-9E1-13													
9E2-14													
9E3-15													
14-M-10A1-16													
10A2-17													
10A3-18	↓		↓	↓	↓						↓		

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE
	9/6/18	15:32	
RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY — SIGNATURE

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE
RELINQUISHED BY — SIGNATURE	DATE	TIME	

REQUESTED TURNAROUND TIME
☒ 1-3 DAYS ☐ _____ HOURS

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

352 – 1993 Review of Analysis Request (Initials) EHA

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME	PROJECT ADDRESS	PROJECT MANAGER
Limited NESHAP	1000 N Cadell St. Eloy	Vicky Awles
WT JOB NO.	**PURCHASE ORDER NO.**	**EMAIL ADDRESS**
2188JH269		
SAMPLER – *SIGNATURE*	**SAMPLER – *PLEASE PRINT NAME***	Single layer Analysis
	A. Smith	

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
14-M-1031-19	08/06/18		Building 14	1	X						X		mortar
1032-20	↓		↓	1	↓						↓		↓
1033-21	↓		↓	1	↓						↓		

RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED BY – *SIGNATURE*	RELINQUISHED BY – *SIGNATURE*	DATE	TIME	RECEIVED BY – *SIGNATURE*
	8/6/18	1532					
RELINQUISHED BY – *SIGNATURE*	**DATE**	**TIME**	**RECEIVED FOR LABORATORY BY – *SIGNATURE***	**DATE**	**TIME**	**REQUESTED TURNAROUND TIME**	
						☒ 1-3 DAYS ☐ _____ HOURS	

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

352 – 1993 Review of Analysis Request (Initials) ELA

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807172

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737
FAX: (602) 470-1341

 # Samples: 21 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel St, Eloy **PO Number:**

Report Date: 8/8/2018 **Date Analyzed:** 8/8/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807172** 2188JH269 / 1000 N Curiel St, Eloy

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type * / *Asbestos Results*	Positive Layer Yes or No
Sample # 14-M-9A1-1			2018-07172- 1	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 14-M-9A2-2			2018-07172- 2	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 14-M-9A3-3			2018-07172- 3	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 14-M-9B1-4			2018-07172- 4	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 14-M-9B2-5			2018-07172- 5	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 14-M-9B3-6			2018-07172- 6	Roofing	Positive Layer? No
Layer # 1	black	roofing roll/shingle		*no asbestos detected*	
Sample # 14-M-9C1-7			2018-07172- 7	Roofing	Positive Layer? No
Layer # 1	black	felt		*no asbestos detected*	
Sample # 14-M-9C2-8			2018-07172- 8	Roofing	Positive Layer? No
Layer # 1	black	felt		*no asbestos detected*	
Sample # 14-M-9C3-9			2018-07172- 9	Roofing	Positive Layer? No
Layer # 1	black	felt		*no asbestos detected*	
Sample # 14-M-9D1-10			2018-07172- 10	Adhesive/caulk	Positive Layer? No
Layer # 1	black	sealant		*no asbestos detected*	
Sample # 14-M-9D2-11			2018-07172- 11	Adhesive/caulk	Positive Layer? No
Layer # 1	black	sealant		*no asbestos detected*	
Sample # 14-M-9D3-12			2018-07172- 12	Adhesive/caulk	Positive Layer? No
Layer # 1	black	sealant		*no asbestos detected*	
Sample # 14-M-9E1-13			2018-07172- 13	Adhesive/caulk	Positive Layer? No
Layer # 1	off-white	sealant		*no asbestos detected*	
Sample # 14-M-9E2-14			2018-07172- 14	Adhesive/caulk	Positive Layer? No
Layer # 1	off-white	sealant		*no asbestos detected*	
Sample # 14-M-9E3-15			2018-07172- 15	Adhesive/caulk	Positive Layer? No
Layer # 1	off-white	sealant		*no asbestos detected*	
Sample # 14-M-10A1-16			2018-07172- 16	Miscellaneous	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 14-M-10A2-17			2018-07172- 17	Miscellaneous	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 14-M-10A3-18			2018-07172- 18	Miscellaneous	Positive Layer? No
Layer # 1	gray	block		*no asbestos detected*	
Sample # 14-M-10B1-19			2018-07172- 19	Miscellaneous	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	
Sample # 14-M-10B2-20			2018-07172- 20	Miscellaneous	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	
Sample # 14-M-10B3-21			2018-07172- 21	Miscellaneous	Positive Layer? No
Layer # 1	gray	mortar		*no asbestos detected*	

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample 14-M-9A1-1 **Lab Number** 2018-07172- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	2-5%	-	-	-	-	-
	Total %	100		**Overall %**	2-5%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	W	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9A2-2 **Lab Number** 2018-07172- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	2-5%	-	-	-	-	-
	Total %	100		**Overall %**	2-5%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	W	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9A3-3 **Lab Number** 2018-07172- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	2-5%	-	-	-	-	-
	Total %	100		**Overall %**	2-5%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	W	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9B1-4 **Lab Number** 2018-07172- 4 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9B2-5 **Lab Number** 2018-07172- 5 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9B3-6 **Lab Number** 2018-07172- 6 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roofing roll/shingle	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9C1-7 **Lab Number** 2018-07172- 7 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Mat
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	felt	100	black	2	80-90%	-	-	-	-	-
	Total %	100		Overall %	80-90%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9C2-8 **Lab Number** 2018-07172- 8 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Mat
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	felt	100	black	2	80-90%	-	-	-	-	-
	Total %	100		Overall %	80-90%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9C3-9 **Lab Number** 2018-07172- 9 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Mat
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, bitumen,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	felt	100	black	2	80-90%	-	-	-	-	-
	Total %	100		Overall %	80-90%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9D1-10 **Lab Number** 2018-07172- 10 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	>1-2%	-	-	-	-	-
	Total %	100		**Overall %**	>1-2%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9D2-11 **Lab Number** 2018-07172- 11 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	>1-2%	-	-	-	-	-
	Total %	100		**Overall %**	>1-2%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9D3-12 **Lab Number** 2018-07172- 12 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	>1-2%	-	-	-	-	-
	Total %	100		**Overall %**	>1-2%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9E1-13 **Lab Number** 2018-07172- 13 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	off-white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9E2-14 **Lab Number** 2018-07172- 14 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	off-white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-9E3-15 **Lab Number** 2018-07172- 15 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	off-white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample 14-M-10A1-16 **Lab Number** 2018-07172- 16 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Sample 14-M-10A2-17 **Lab Number** 2018-07172- 17 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Sample 14-M-10A3-18 **Lab Number** 2018-07172- 18 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	gray	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Sample 14-M-10B1-19 **Lab Number** 2018-07172- 19 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	BI	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Sample 14-M-10B2-20 **Lab Number** 2018-07172- 20 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	BI	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Sample 14-M-10B3-21 **Lab Number** 2018-07172- 21 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By GV 8/8/2018 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): powder, rock,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	BI	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious components using acid.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Galina B. Volkova

Analyst: GALINA B. VOLKOVA

Printed: 08-Aug-18

Original Print Date: 08-Aug-18

Larry S. Pierce

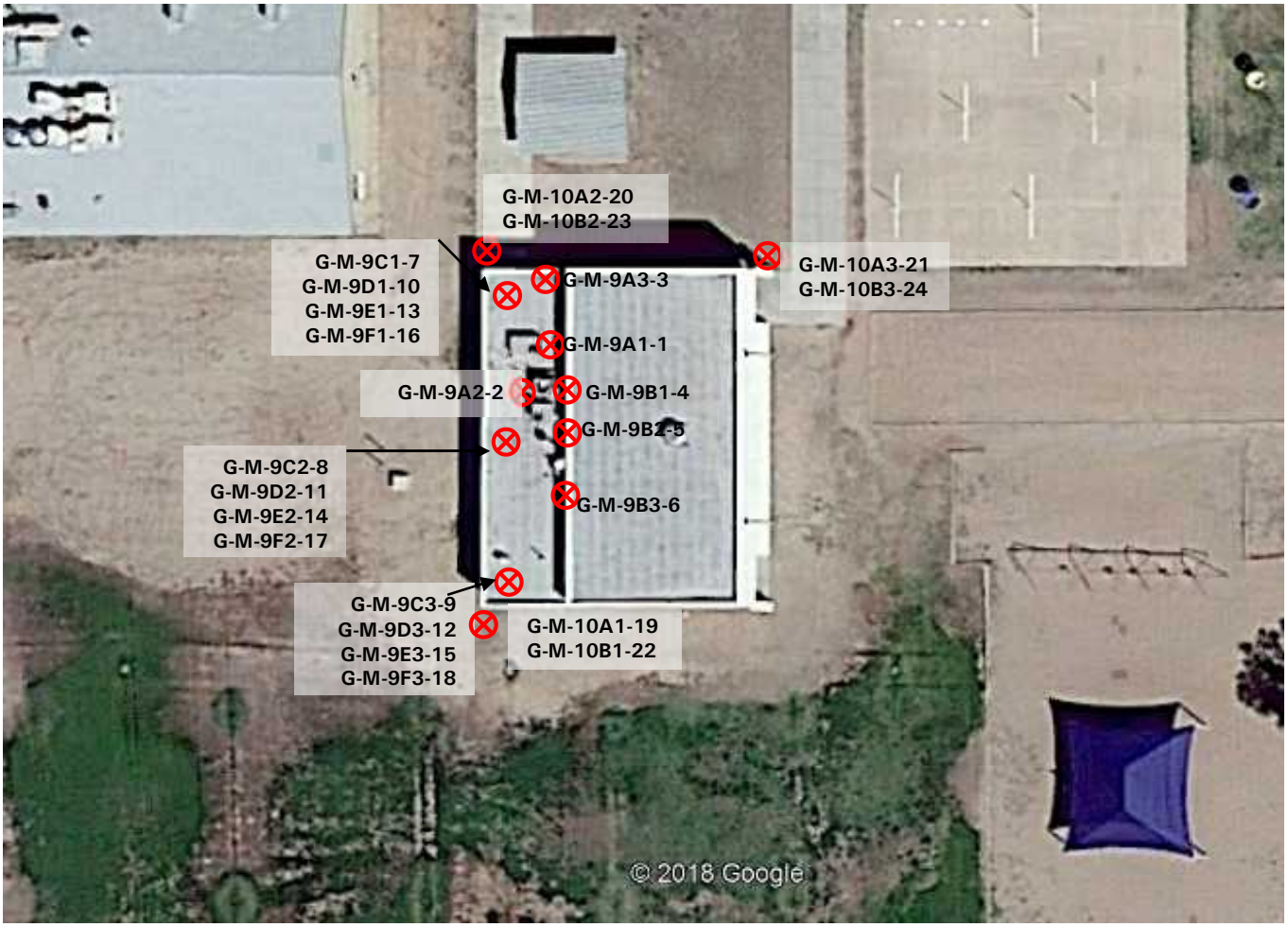
Larry S. Pierce, Approved Accreditation Signatory

APPENDIX K

FIGURE 11 – GENERAL SAMPLE COLLECTION LOCATION DIAGRAM

Curiel Primary School
1000 North Curiel Street
Eloy, Arizona

Gymnasium



LEGEND

⊗ General Sample Collection Location & Identification Number

NOTE:
Please See Asbestos Survey Sample Log for height and location for wall samples of concrete block and mortar. Sample collection locations are generally indicated in this figure showing the side of the structure the wall sample was collected.

DIAGRAM NOT TO SCALE

N

Reviewed: V. Aviles	Date: 08-5-2018
Client: Eloy Elementary School District	Prepared By: A. Smith
Western Technologies Inc.	
Job No. 2188JH269	Figure No. 11

TABLE 11
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Gymnasium (RPA Building G)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
G-M-9A1-1, 9A2-2 and 9A3-3	Sealant (Black, on roof penetrations)	Roof	NF	Misc	10	**NO**
G-M-9B1-4, 9B2-5 and 9B3-6	Sealant (White, on HVAC)	Roof	NF	Misc	15	**NO**
G-M-9C1-7, 9C2-8 and 9C3-9	Asphalt Roof	Roof	NF	Misc	4,320	**YES**
G-M-9D1-10, 9D2-11 and 9D3-12	Hot Mop	Roof	NF	Misc	4,320	**NO**
G-M-9E1-13, 9E2-14 and 9E3-15	Felt	Roof	NF	Misc	4,320	**NO**

TABLE 11
SUMMARY OF HOMOGENEOUS MATERIALS BY FUNCTIONAL SPACE
ELOY SCHOOL DISTRICT

PROJECT: NESHAP Asbestos Survey Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Gymnasium (RPA Building G)	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
G-M-9F1-16, 9F2-17 and 9F3-18	Insulation	Roof	NF	Misc	4,320	**NO**
G-M-10A1-19, 10A2-20 and 10A3-21	Concrete Block (4"x18")	Exterior Walls	NF	Misc	4,290	**NO**
G-M-10B1-22, 10B2-23 and 10B3-24	Mortar (for concrete block)	Exterior Walls	NF	Misc	4290 area	**NO**

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 1 of 8

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Gym

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: G-M-9A

TOTAL QUANTITY: SF: 10 LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	lower Roof →		
Sample Origin	NW (NE) SW SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	4ftw	20ftE	8ftw
N/S Location	20ftS	25ftS	1ftS
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

Black

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Gym

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: G-M-9B

TOTAL QUANTITY: SF: 15 LF:

Sequential #	1 - 4	2 - 5	3 - 6
Location/FS	lower Roof →	→	→
Sample Origin	NW (NE) SW SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	3ftw	5ftw	3ftw
N/S Location	22ftS	22ftS	35ftN
Height ^ Floor	3ft	5ft	3ft in
Component	HVAC →	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →	→	→
TYPE ASBESTOS			

NOTES

White

On HVAC

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Ally Stu

DATE: 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 3 of 8.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Gym

HOMOGENEOUS MATERIAL: Asphalt Roof

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: G-M-9C

TOTAL QUANTITY: SF: 4320 LF:

Sequential #	1 - 7	2 - 8	3 - 9
Location/FS	lower roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW NE (SW) SE
E/W Location	60ft E	60ft E	60ft E
N/S Location	60ft S	20ft S	24ft N
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 4 of 8.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Gym

HOMOGENEOUS MATERIAL: Hot Mop

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: G-M-9D

TOTAL QUANTITY: SF: 4320 LF:

Sequential #	1 - 10	2 - 11	3 - 12
Location/FS	lower Roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW NE (SW) SE
E/W Location	6ftE	6ftE	6ftE
N/S Location	6ftS	28ftS	4ftN
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 5 of 8

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Gym

HOMOGENEOUS MATERIAL: Felt

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: G-M-9E

TOTAL QUANTITY: SF: 4320 LF:

Sequential #	1 - 13	2 - 14	3 - 15
Location/FS	lower Roof →		
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW NE (SW) SE
E/W Location	60ft E	60ft E	60ft E
N/S Location	60ft S	28 ft S	4ft N
Height ^ Floor	0ft →		
Component	floor →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 6 of 8.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Gym

HOMOGENEOUS MATERIAL: Insulation

LOCATION BY FUNCTIONAL SPACE (FS): Roof

SAMPLE NUMBER: G-M-~~1~~ 9F

TOTAL QUANTITY: SF: 4320 LF:

Sequential #	1 - 16	2 - 17	3 - 18
Location/FS	Lower Roof	→	→
Sample Origin	(NW) NE SW SE	(NW) NE SW SE	NW NE (SW) SE
E/W Location	60ftE	60ftE	60ftE
N/S Location	60ftS	28ftS	4ftS
Height ^ Floor	0ft	→	→
Component	floor	→	→
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	(None) Rare O&M General	(None) Rare O&M General	(None) Rare O&M General
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND	→	→
TYPE ASBESTOS			

NOTES

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 7 of 8.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - ~~Bldg 15~~ Gym

HOMOGENEOUS MATERIAL: Concrete

LOCATION BY FUNCTIONAL SPACE (FS): Exterior walls

SAMPLE NUMBER: G-M-19A

TOTAL QUANTITY: SF: 4290 LF:

Sequential #	1 - 19	2 - 20	3 - 21
Location/FS	Exterior Walls →		
Sample Origin	NW NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	Off E	Off E	Off W
N/S Location	Off N	Off S	Off S
Height ^ Floor	5ft	5ft	5ft
Component	Wall →		
Friable	Yes No	Yes No	Yes No
Condition	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.	Good Damaged Sig. Dam.
Accessibility	None Rare O&M General	None Rare O&M General	None Rare O&M General
Activity Level	L M H	L M H	L M H
Disturbance Potential	L/N PD PSD	L/N PD PSD	L/N PD PSD
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

Block

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: Alex Smith **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

wt-us.com

ASBESTOS SURVEY SAMPLE LOG

CLIENT: Eloy Elementary School District

PROJECT NO: 2188JH269

Page 8 of 8.

SITE ADDRESS: 1000 North Curiel Street, Eloy, Arizona

SAMPLED SITE: Eloy Elementary School - Gym

HOMOGENEOUS MATERIAL: Mortar

LOCATION BY FUNCTIONAL SPACE (FS): Exterior Walls

SAMPLE NUMBER: G-M-10B

TOTAL QUANTITY: SF: 4290 area LF:

Sequential #	1 - 22	2 - 23	3 - 24
Location/FS	Exterior walls →		
Sample Origin	NW NE (SW) SE	(NW) NE SW SE	NW (NE) SW SE
E/W Location	Off E	Off E	Off W
N/S Location	Off N	Off S	Off S
Height ^ Floor	5ft	5ft	5ft
Component	Wall →		
Friable	Yes (No)	Yes (No)	Yes (No)
Condition	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.	(Good) Damaged Sig. Dam.
Accessibility	None Rare O&M (General)	None Rare O&M (General)	None Rare O&M (General)
Activity Level	(L) M H	(L) M H	(L) M H
Disturbance Potential	L/N PD (PSD)	L/N PD (PSD)	L/N PD (PSD)
% ASBESTOS	ND →		
TYPE ASBESTOS			

NOTES

for concrete Block

INSPECTOR(S) / ACCREDITATION NO.

- ☐ Vicky Aviles, The Asbestos Institute (TAI), G7031, Expiration May 5, 2018
- ☐ Suzette Numkena, TAI, ID No. G8456, Expiration April 6, 2019
- ☐ Jason Criss, TAI, ID No. G7027, Expiration May 5, 2018
- ☐ Matt Steinhoff, TAI ID No. G7675, Expiration October 6, 2018
- ☐ Ryan Fasci, TAI ID No. G8292, Expiration March 7, 2019
- ☐ Theodore Stude, TAI, ID No. G8459, Expiration April 6, 2019
- ☐ John Holmquist, TAI, ID No. G7810, Expiration November 3, 2018
- ☐ Ryan Cleary, TAI, ID No. G8455, Expiration April 6, 2019
- ☐ Sean Moggridge, Field Science, AI171220001, Exp. December 20, 2018
- ☐ Alex Smith, TAI, ID No. G7791, Exp. November 8, 2018

SIGNATURE: [signature] **DATE:** 8/6/2018

Remarks: The percent and type asbestos are entered upon completion of laboratory analysis. The date of analysis is available on the laboratory report.
ND = No asbestos detected.

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME: Limited NESHAP
PROJECT ADDRESS: 1000 N Cliff St, Eloy
PROJECT MANAGER: Vicky Awles
WT JOB NO.: 288JH269
PURCHASE ORDER NO.:
EMAIL ADDRESS:
SAMPLER — SIGNATURE:
SAMPLER — PLEASE PRINT NAME: A. Smith
Single layer Analysis

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
G-M-9A 1-1			Gymnasium	1	X						X		sealant (black)
2-2													
3-3													sealant (white)
G-M-9B 1-4													
2-5													
3-6													asphalt roof
G-M-9C 1-7													
2-8													hot mop
3-9													
G-M-9D 1-10													felt
2-11													
3-12													insulation
G-M-9E 1-13													
2-14													
3-15													
G-M-9F 1-16													
2-17													
3-18													

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE
[signature]	8/6/11	15:32	[signature]
RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY — SIGNATURE
			[signature]

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE

DATE	TIME	RECEIVED FOR LABORATORY BY — SIGNATURE

REQUESTED TURNAROUND TIME
☒ 1-3 DAYS ☐ _____ HOURS

Review of Analysis Request (Initials): [initials]

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

Western Technologies Inc.
The Quality People
Since 1955
www.wt-us.com

☐ Flagstaff • (928) 774-8700 • f 774-6469 • 2400 East Huntington Drive • AZ 86004
☒ Phoenix • (602) 437-3737 • f 470-1341 • 3737 East Broadway Road • AZ 85040
☐ Prescott • (928) 443-5010 • f 443-7392 • 1040 Sandretto Drive, Suite C • AZ 86305
☐ Tucson • (520) 748-2262 • f 748-0435 • 3480 South Dodge Boulevard • AZ 85713
☐ Durango • (970) 375-9033 • f 375-9034 • 278 Sawyer Drive, No. 2 • CO 81303
☐ Las Vegas • (702) 798-8050 • f 798-7664 • 6633 West Post Road • NV 89118
☐ Albuquerque • (505) 823-4488 • f 821-2963 • 8305 Washington Place, N.E. • NM 87113
☐ Farmington • (505) 327-4966 • f 327-5293 • 400 South Lorena Avenue • NM 87401
☐ Salt Lake City • (801) 972-3650 • f 972-3653 • 420 West Lawndale Drive • UT 84115

CHAIN OF CUSTODY

☐ INDUSTRIAL HYGIENE ☐ MICROBIAL
☒ ASBESTOS ☐ LEAD

PROJECT NAME	PROJECT ADDRESS	PROJECT MANAGER
Limited NESHAP	6000 N Cloverdale St, Flag	Vicky Deales
WT JOB NO.	PURCHASE ORDER NO.	EMAIL ADDRESS
2188JH269		
SAMPLER — SIGNATURE	SAMPLER — PLEASE PRINT NAME	
	A. Smith	

Single layer Analysis

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD: PLM	VOLUME / AREA	COMMENTS
O-M-10A1-19	08/09/18		Gym	1	X						X		blocks
10A2-20	↓		↓	↓	↓						↓		↓
10A3-21													mortar
O-M-10B1-22													↓
10B2-23													
10B3-24													

RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE	RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED BY — SIGNATURE
	8/6/18	15:30					
RELINQUISHED BY — SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY — SIGNATURE	DATE	TIME	REQUESTED TURNAROUND TIME	
						☒ 1-3 DAYS ☐ _____ HOURS	

Review of Analysis Request (Initials) RHA

White – Testing Laboratory; Yellow – Department Job File; Pink – Field Sample

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber: 201807176

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737
FAX: (602) 470-1341

 # Samples: 24 PLM **Rec:** 8/6/2018 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2188JH269 / 1000 N Curiel Street, Eloy **PO Number:**

Report Date: 8/8/2018 **Date Analyzed:** 8/8/2018 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Single layer sample analysis as per client request. Any material or layer other than that indicated on the chain of custody was not analyzed, even if a suspect material.

PLM Analysis Summary: **Job Number: 201807176** 2188JH269 / 1000 N Curiel Street, Eloy

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type *	Positive Layer Yes or No
			Asbestos Results		
Sample # G-M-9A1-1			2018-07176- 1	Adhesive/caulk	Positive Layer? No
Layer # 1	black	sealant	*no asbestos detected*		
Sample # G-M-9A2-2			2018-07176- 2	Adhesive/caulk	Positive Layer? No
Layer # 1	black	sealant	*no asbestos detected*		
Sample # G-M-9A3-3			2018-07176- 3	Adhesive/caulk	Positive Layer? No
Layer # 1	black	sealant	*no asbestos detected*		
Sample # G-M-9B1-4			2018-07176- 4	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # G-M-9B2-5			2018-07176- 5	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # G-M-9B3-6			2018-07176- 6	Adhesive/caulk	Positive Layer? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # G-M-9C1-7			2018-07176- 7	Roofing	Positive Layer? No
Layer # 1	white	roofing roll/shingle	*no asbestos detected*		
Sample # G-M-9C2-8			2018-07176- 8	Roofing	Positive Layer? No
Layer # 1	white	roofing roll/shingle	*no asbestos detected*		
Sample # G-M-9C3-9			2018-07176- 9	Roofing	Positive Layer? No
Layer # 1	white	roofing roll/shingle	*no asbestos detected*		
Sample # G-M-9D1-10			2018-07176- 10	Roofing	Positive Layer? No
Layer # 1	black	bitumen	*no asbestos detected*		
Sample # G-M-9D2-11			2018-07176- 11	Roofing	Positive Layer? No
Layer # 1	black	bitumen	*no asbestos detected*		
Sample # G-M-9D3-12			2018-07176- 12	Roofing	Positive Layer? No
Layer # 1	black	bitumen	*no asbestos detected*		
Sample # G-M-9E1-13			2018-07176- 13	Roofing	Positive Layer? No
Layer # 1	black	roof ply	*no asbestos detected*		
Sample # G-M-9E2-14			2018-07176- 14	Roofing	Positive Layer? No
Layer # 1	black	roof ply	*no asbestos detected*		
Sample # G-M-9E3-15			2018-07176- 15	Roofing	Positive Layer? No
Layer # 1	black	roof ply	*no asbestos detected*		
Sample # G-M-9F1-16			2018-07176- 16	Insulation	Positive Layer? No
Layer # 1	tan	insulation	*no asbestos detected*		
Sample # G-M-9F2-17			2018-07176- 17	Insulation	Positive Layer? No
Layer # 1	tan	insulation	*no asbestos detected*		
Sample # G-M-9F3-18			2018-07176- 18	Insulation	Positive Layer? No
Layer # 1	tan	insulation	*no asbestos detected*		
Sample # G-M-10A1-19			2018-07176- 19	Cementitious	Positive Layer? No
Layer # 1	various	block	*no asbestos detected*		
Sample # G-M-10A2-20			2018-07176- 20	Cementitious	Positive Layer? No
Layer # 1	various	block	*no asbestos detected*		
Sample # G-M-10A3-21			2018-07176- 21	Cementitious	Positive Layer? No
Layer # 1	various	block	*no asbestos detected*		
Sample # G-M-10B1-22			2018-07176- 22	Cementitious	Positive Layer? No
Layer # 1	gray	mortar	*no asbestos detected*		
Sample # G-M-10B2-23			2018-07176- 23	Cementitious	Positive Layer? No
Layer # 1	gray	mortar	*no asbestos detected*		
Sample # G-M-10B3-24			2018-07176- 24	Cementitious	Positive Layer? No
Layer # 1	gray	mortar	*no asbestos detected*		

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample G-M-9A1-1 **Lab Number** 2018-07176- 1 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	10-20%	-	-	-	-	-
	Total %	100		**Overall %**	10-20%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample G-M-9A2-2 **Lab Number** 2018-07176- 2 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	10-20%	-	-	-	-	-
	Total %	100		**Overall %**	10-20%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample G-M-9A3-3 **Lab Number** 2018-07176- 3 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	black	1	10-20%	-	-	-	-	-
	Total %	100		**Overall %**	10-20%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample G-M-9B1-4 **Lab Number** 2018-07176- 4 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample G-M-9B2-5 **Lab Number** 2018-07176- 5 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample G-M-9B3-6 **Lab Number** 2018-07176- 6 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample G-M-9C1-7 **Lab Number** 2018-07176- 7 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock, binder

Layers

#	Layer Type	%	Color	Friability
1	roofing roll/shingle	100	white	1
	Total %	100	**Overall %**	

Percents of Each Fiber	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	5-10%	-	-	-	-	-
Overall %	5-10%	-	-	-	-	-
Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	glass fiber	CL	D	Y				
2								
3								
4								
5								
6								

Refractive Index Determinations	Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of bitumen matrix using solvent.

Sample G-M-9C2-8 **Lab Number** 2018-07176- 8 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock, binder

Layers

#	Layer Type	%	Color	Friability
1	roofing roll/shingle	100	white	1
	Total %	100	**Overall %**	

Percents of Each Fiber	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	5-10%	-	-	-	-	-
Overall %	5-10%	-	-	-	-	-
Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	glass fiber	CL	D	Y				
2								
3								
4								
5								
6								

Refractive Index Determinations	Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of bitumen matrix using solvent.

Sample G-M-9C3-9 **Lab Number** 2018-07176- 9 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, rock, binder

Layers

#	Layer Type	%	Color	Friability
1	roofing roll/shingle	100	white	1
	Total %	100	**Overall %**	

Percents of Each Fiber	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	5-10%	-	-	-	-	-
Overall %	5-10%	-	-	-	-	-
Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	synthetic fiber (extruded)	W	E	N	N	H	+	P
2								
3								
4								
5								
6								

Refractive Index Determinations	Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of bitumen matrix using solvent.

Sample G-M-9D1-10 **Lab Number** 2018-07176- 10 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	bitumen	100	black	1	>1-2%	-	-	-	-	-
	Total %	100		Overall %	>1-2%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of bitumen matrix using solvent.

Sample G-M-9D2-11 **Lab Number** 2018-07176- 11 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	bitumen	100	black	1	>1-2%	-	-	-	-	-
	Total %	100		Overall %	>1-2%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of bitumen matrix using solvent.

Sample G-M-9D3-12 **Lab Number** 2018-07176- 12 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	bitumen	100	black	1	>1-2%	-	-	-	-	-
	Total %	100		Overall %	>1-2%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of bitumen matrix using solvent.

Sample G-M-9E1-13 **Lab Number** 2018-07176- 13 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	W	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of bitumen matrix using solvent.

Sample G-M-9E2-14 **Lab Number** 2018-07176- 14 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	W	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of bitumen matrix using solvent.

Sample G-M-9E3-15 **Lab Number** 2018-07176- 15 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Roofing Sticky
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply	100	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	W	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of bitumen matrix using solvent.

Sample G-M-9F1-16 **Lab Number** 2018-07176- 16 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Insulation Fibrous Mat

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): binder, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	Insulation	100	tan	3	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps.

Sample G-M-9F2-17 **Lab Number** 2018-07176- 17 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Insulation Fibrous Mat

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): binder, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	Insulation	100	tan	3	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps.

Sample G-M-9F3-18 **Lab Number** 2018-07176- 18 **Sampled:** 8/6/2018 **Condition:** acceptable

Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Insulation Fibrous Mat

Homogeneous Yes **# Layers** 1 **Pos Layer?** No

Non-Fibrous Components (in approx. decreasing order): binder, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	Insulation	100	tan	3	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps.

Sample G-M-10A1-19 **Lab Number** 2018-07176- 19 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	various	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample G-M-10A2-20 **Lab Number** 2018-07176- 20 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	various	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample G-M-10A3-21 **Lab Number** 2018-07176- 21 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	block	100	various	1	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample G-M-10B1-22 **Lab Number** 2018-07176- 22 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample G-M-10B2-23 **Lab Number** 2018-07176- 23 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample G-M-10B3-24 **Lab Number** 2018-07176- 24 **Sampled:** 8/6/2018 **Condition:** acceptable
Analyzed By US 8/8/2018 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Pos Layer?** No
Non-Fibrous Components (in approx. decreasing order): filler, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mortar	100	gray	2	n.d.	-	-	-	-	-
	Total %	100		Overall %	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bl	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

Uwe Steimle

Analyst: UWE .. STEIMLE

Printed: 08-Aug-18

Original Print Date: 08-Aug-18

Larry S. Pierce

Larry S. Pierce, Approved Accreditation Signatory

APPENDIX L

G 7791

THE ASBESTOS INSTITUTE

Certifies that

Alexander Smith

has attended the EPA approved course

AHERA Building Inspector Initial
November 6-8, 2017

and successfully passed the competency exam.

Date of Examination: November 8, 2017

Date of Expiration: November 8, 2018

William T. Cavness
Director

Approved Instructor

THE ASBESTOS INSTITUTE
20033 N. 19th Avenue
Building #6
Phoenix, AZ 85027
602-864-6564

This training meets all requirements for asbestos accreditation under Toxic Substance Control Act Title II and California OSHA.

G 8459

THE ASBESTOS INSTITUTE

Certifies that

Theodore Stude

has attended the EPA approved course

AHERA Building Inspector Refresher
April 6, 2018

and successfully passed the competency exam.

Date of Examination: April 6, 2018

Date of Expiration: April 6, 2019

William T. Cavness
Director

Approved Instructor

THE ASBESTOS INSTITUTE
20033 N. 19th Avenue
Building #6
Phoenix, AZ 85027
602-864-6564

This training meets all requirements for asbestos accreditation under Toxic Substance Control Act Title II and California OSHA.

Eloy Elementary School District
Curiel Primary School
1000 North Curiel Street
Eloy, Arizona
Photographic Log
WESTERN TECHNOLOGIES INC.

WT Job No.: 2188JH269 Date: August 6, 2018

Picture 1 – General view of Building 5.

Picture 2 – Building 6 and 7, and general lay-out of Buildings 8 through 13.

Picture 3 – General view of Building 14.

Picture 4 – General view of the Gymnasim.

Picture 5 – Asphalt shingles and felt roofing system found on Buildings 5 through 14.

Picture 6 – Breezway found connecting Buildings 5 through 13.

Picture 7 – Black roof penetration sealant found on buildings 5 though 14 and the Gymnasium.

Picture 8 – White roof sealant on HVAC systems on buildings 5 through 14 and the Gymnasium.

Picture 9 – Concrete block and mortar exterior walls on buildings 5 though 14.

Picture 10 - Window glazing found on buildings 12 and 13.

Picture 11 - Picture 10 – Concrete block and mortar exterior walls with white paint found on the Gymnasium

Picture 12 – View of lower roof of the Gymnasium.