Western Technologies Inc.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) ASBESTOS - REVISION

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

September 24, 2019

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 September 18, 2019
EPA Accredited Inspector:	Alexander Smith Theodore Stude Vicky Aviles
Certification Number & Expiration Date:	G7791 Exp. 11-08-2018 (Smith) G8459 Exp. 04-06-2019 (Stude) G9945 Exp. 05-04-2020 (Aviles
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) All Structures – 40 (9/23/2019)
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. Window/Door Sealant, ~5.4 s.f. <u>Building 7 (RPA Building A)</u> Sealant @ Roof Penetrations, ~10 s.f. Window/Door Sealant, ~5.4 s.f. <u>Building 8 (RPA Building B)</u> Sealant @ Roof Penetrations, ~10 s.f. Window/Door Sealant, ~5.4 s.f. <u>Building 9 (RPA Building B)</u> Sealant for Roof Penetrations, ~10 s.f. Window/Door Sealant, ~5.4 s.f. <u>Building 10 (RPA Building C)</u> Sealant @ Roof Penetrations, ~10 s.f. Window/Door Sealant, ~5.4 s.f.

Building 11 (RPA Building C)
Sealant @ Roof Penetrations, ~10 s.f.
Window/Door Sealant, ~5.4 s.f.

Building 12 (RPA Building D)
Sealant @ Roof Penetrations, ~10 s.f.
Window/Door Sealant, ~5.4 s.f.

Building 13 (RPA Building D)
Sealant @ Roof Penetrations, ~10 s.f.
Window/Door Sealant, ~5.4 s.f.

Building 14 (RPA Building F)
Window/Door Sealant, ~5.4 s.f.

Gymnasium (RPA Building G)
Window/Door Sealant, ~5.4 s.f.

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.

September 24, 2019

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

Attn: Edward Sauceda and Ruby James

Re: Limited NESHAP Asbestos Survey - Revision 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 Weatherization, 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.

Vicky L. Aviles, EPA accredited asbestos inspector with WT, revisited the site September 18, 2019. During the initial survey, WT was not informed the project included collecting samples of the expansion joints in the masonry walls. Our scope of work did include collecting samples of window sealants but our inspector's misinterpreted that task as referring to window glaze. Therefore, samples of these materials were collected and sampled for asbestos. 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.

Buildings 6 through 14 and G

WT collected 20 samples of expansion joint material from masonry walls and 20 samples of window and door sealants (between frames and masonry) from these buildings. Of the 40 samples collected, 4 sealant samples were analyzed to contain 1-2% asbestos. Due to the extreme cost to sample every door and window, WT has assumed the sealant on all structures to be asbestos containing.

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
Window/Door Sealant, ~5.4 s.f.

Building 7 (RPA Building A)
Sealant for Roof Penetrations, approximately 10 square feet
Window/Door Sealant, ~5.4 s.f.

Building 8 (RPA Building B)
Sealant for Roof Penetrations, approximately 10 square feet
Window/Door Sealant, ~5.4 s.f.

Building 9 (RPA Building B)
Sealant for Roof Penetrations, approximately 10 square feet
Window/Door Sealant, ~5.4 s.f.

Building 10 (RPA Building C)
Sealant for Roof Penetrations, approximately 10 square feet
Window/Door Sealant, ~5.4 s.f.

Building 11 (RPA Building C)
Sealant for Roof Penetrations, approximately 10 square feet
Window/Door Sealant, ~5.4 s.f.

Building 12 (RPA Building D)
Sealant for Roof Penetrations, approximately 10 square feet
Window/Door Sealant, ~5.4 s.f.

Building 13 (RPA Building D)
Sealant for Roof Penetrations, approximately 10 square feet
Window/Door Sealant, ~5.4 s.f.

Building G (Gymnasium)
Window/Door Sealant, ~5.4 s.f.

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.

Sealant (around Window and Door Frames)

The asbestos containing window and doorframe sealant is considered by EPA as miscellaneous, non-friable asbestos containing material. Asbestos containing window and door frame sealant is classified by OSHA as Class II work, non-friable. The asbestos containing window and doorframe sealant is categorized by the NESHAP as Category II, non-friable.

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.

The door and window frame sealant is very thin applications and very tightly bound and painted over. These materials present no exposure concern unless the windows and doorframes are to be removed. Due to the matrix of this sealant material it is unlikely an exposure concern would even exist during removal of these components. If the door and window frames are scheduled to be removed – persons who have received asbestos training as per the EPA and OSHA regulations should conduct these services. Note: It appears wood panels have been placed over exterior window walls in most of these structures. WT did not remove these panels to verify but believe this to be the case.

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 review the initial report prepared in 2018 to see all support data generated at that time. 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

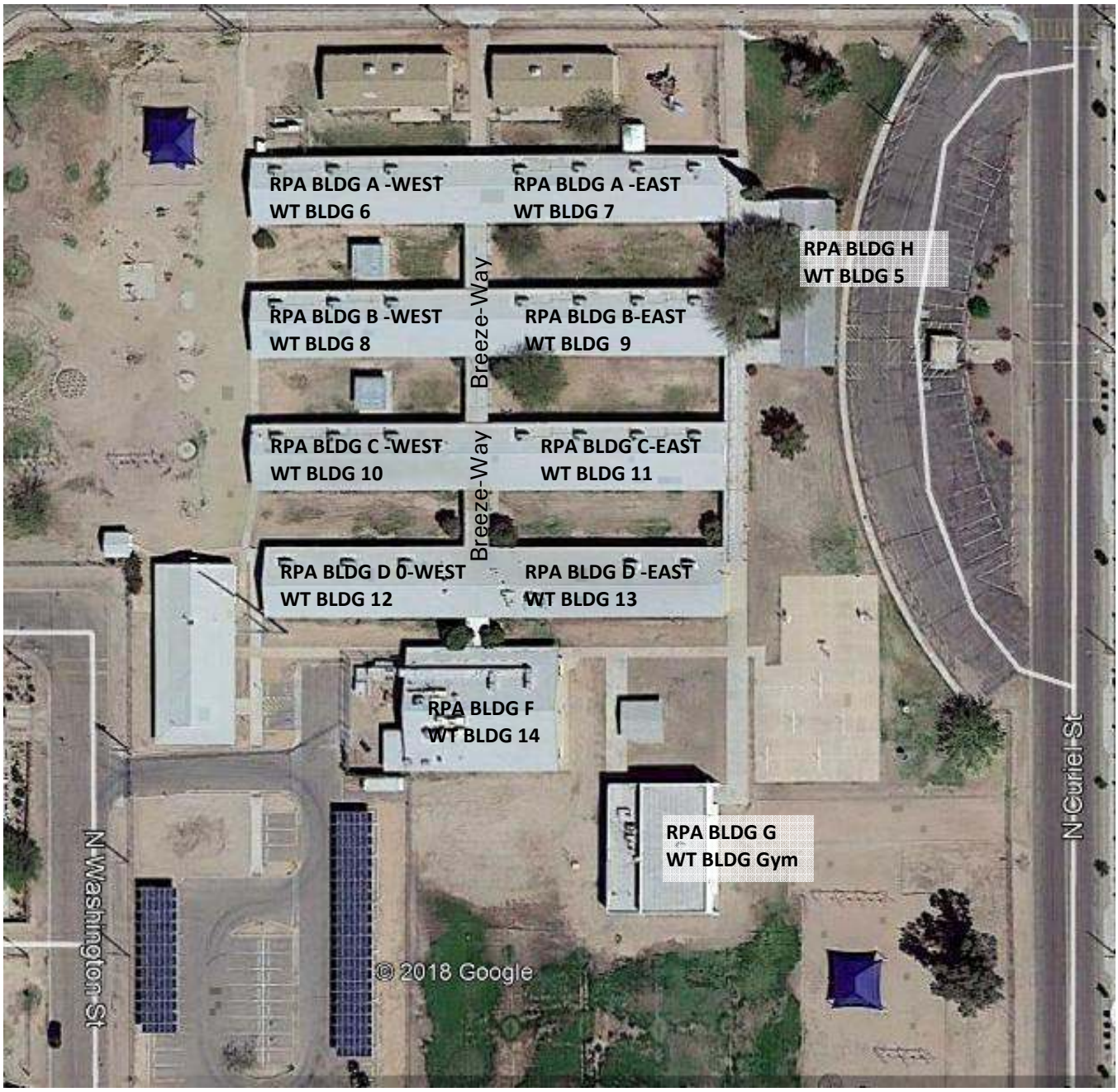
Vicky L. Aviles, AEP, CIAQM
Environmental Project Manager/Principal

Attachment: Figure A: 2018 Aerial Photograph
Table 1: Summary of Homogeneous Materials by Functional Space
Asbestos Survey Sample Logs, Chain-of-Custody, Laboratory Report
Inspector's Certification and Photographic Log

ATTACHMENT

FIGURE A – 2018 AERIAL PHOTOGRAPH

ELOY ELEMENTARY SCHOOL
1000 NORTH CURIEL STREET
ELOY, ARIZONA



N	Reviewed: V. Aviles	Date: 09-24-2019
	Client: Eloy Elementary School	Prepared By: A. Smith
	Western Technologies Inc.	
	Job No. 2188JH269	Figure No. A

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

PROJECT: NESHAP Asbestos Survey (Follow up) Curiel Primary School 1000 North Curiel Street Eloy, Arizona		**SITE ID:** Buildings 4-14 and G	**FRIABLE/ NON FRIABLE**	**PROJECT NO:** 2188JH269		
HOMOGENEOUS MATERIAL NUMBER	**MATERIAL DESCRIPTION**	**FUNCTIONAL SPACE**	**F/NF**	**MATERIAL TYPE**	**QTY SQ FT**	**ACBM**
C-M-10A1-1, 10A2-2, 10A3-3, 10A4-4, 10A5-5, 10A6-6, 10A7-7, 10A8-8, 10A9-9, 10A10-10, 10A11-11, 10A12-12, 10A13-13, 10A14-14,10A15-15, 10A16-16, 10A17-17, 10A18-18, 10A19-19, 10A20-20	Sealant	Around Window and Door Frames, and Exerior Wood Panel Covering Windows	NF	Misc	54	**YES**
C-M-10B1-1, 10B2-2, 10B3-3, 10B4-4, 10B5-5, 10B6-6, 10B7-7, 10B8-8, 10B9-9, 10B10-10, 10B11-11, 10B12-12, 10B13-13, 10B14-14,10B15-15, 10B16-16, 10B17-17, 10B18-18, 10B19-19, 10B20-20	Expansion Joints	Exterior Masonry Walls	NF	Misc	48	**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 ~~20~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Buildings 6-14 & G

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS): B

SAMPLE NUMBER: C-M-10B

TOTAL QUANTITY: Total

SF: ~~~~ ~54~~ LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Bldg 7	Bldg 7	Bldg 6
Sample Origin	NW NE SW (SE)	(NW) NE SW SE	NW NE SW (SE)
E/W Location	25'W	21'E	~20'W
N/S Location	0	0	0
Height ^ Floor	6'6"	4' on 3	6'6"
Component	Walls	Wall/Door	Window
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	1-2%	ND	
TYPE ASBESTOS	Chrysotile		

NOTES

Sealant around windows, doors & wood panel.

INSPECTOR(S) / ACCREDITATION NO.

- [X] Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- [ ] Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- [ ] Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- [ ] Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- [ ] John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- [ ] Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- [ ] Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE: [signature]

DATE: September 18, 2019

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 ~~20~~ 14
SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ	**SAMPLED SITE:** Bldgs 6 - 14 + G	
HOMOGENEOUS MATERIAL: Sealant	**LOCATION BY FUNCTIONAL SPACE (FS):**	
SAMPLE NUMBER: C-M-10B	**TOTAL QUANTITY:** SF: 54 LF:	

				NOTES
Sequential #	~~1~~- 4	~~2~~- 5	~~3~~- 6	Sealant around windows, doors + wood panels
Location/FS	Bldg 6	Bldg 8	Bldg 8	
Sample Origin	NW (NE) SW SE	NW NE SW (SE)	NW NE SW (SE)	
E/W Location	9' W	28' W	25' W	
N/S Location	0	0	0	
Height ^ Floor	4'	7'	4'	
Component	[illegible] Door	Window	Door Rm 12	
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	1-2%	ND		
TYPE ASBESTOS	Chrysotile			

INSPECTOR(S) / ACCREDITATION NO.

- X Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- ☐ Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- ☐ Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- ☐ Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- ☐ John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- ☐ Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- ☐ Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE: [signature] **DATE:** September 18, 2019

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 ~~16~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Bldgs 6-14 + G

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER: C-M-10B

TOTAL QUANTITY:

SF: ~ ~~54~~

LF:

Sequential #	~~7~~ 7	~~8~~ 8	~~9~~ 9
Location/FS	Bldg 9	Bldg 9	Bldg 10
Sample Origin	NW NE SW (SE)	NW NE SW (SE)	NW (NE) SW SE
E/W Location	~21'W	~21'W	~10'W
N/S Location	0	0	0
Height ^ Floor	4'	4'	4'
Component	Windows	Doorjambs	Window
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		1.2%
TYPE ASBESTOS			Chrysotile

NOTES

old sealant over Sealant around windows, doors & panels

INSPECTOR(S) / ACCREDITATION NO.

- [X] Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- [ ] Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- [ ] Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- [ ] Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- [ ] John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- [ ] Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- [ ] Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE:

DATE: September 18, 2019

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 ~~20~~ 14
SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ	**SAMPLED SITE:** Bldg 6-14 & G	
HOMOGENEOUS MATERIAL: Sealent	**LOCATION BY FUNCTIONAL SPACE (FS):**	
SAMPLE NUMBER: C-M-10B	**TOTAL QUANTITY:** SF: ~54 LF:	

				NOTES
Sequential #	10 - 10	11 - 11	12 - 12	Sealent around windows, doors + wood panels
Location/FS	Bldg 10	Bldg 11	Bldg 11	
Sample Origin	NW NE SW (SE)	(NW) NE SW SE	(NW) NE SW SE	
E/W Location	0	12'E	~20'E	
N/S Location	4FT N	0	0	
Height ^ Floor	4'	4'	7'	
Component	Window Stucco	Wood panels	Window	
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	1-2%			
TYPE ASBESTOS	Chrysotile	ND	—	

INSPECTOR(S) / ACCREDITATION NO.

- X Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- ☐ Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- ☐ Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- ☐ Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- ☐ John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- ☐ Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- ☐ Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE: [signature] **DATE:** September 18, 2019

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 ~~20~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Bldgs 6-14 & G

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER: C-M-10B

TOTAL QUANTITY: SF: ~~548~~ Total LF:

Sequential #	13-13	~~14~~ 14-14	~~15~~ 15-15
Location/FS	Bldg 12	Bldg 12	Bldg 13
Sample Origin	~~NW~~ NE SW SE	NW ~~NE~~ SW ~~SE~~	NW NE (SW) SE
E/W Location	~21'E	~18'W	~21'E
N/S Location	0	0	0
Height ^ Floor	7'	4'	7'
Component	Window	Door	Wood
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

Sealant around windows, doors & wood panels

INSPECTOR(S) / ACCREDITATION NO.

- [X] Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- [ ] Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- [ ] Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- [ ] Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- [ ] John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- [ ] Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- [ ] Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE:

DATE: September 18, 2019

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 ~~20~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Bldgs 6-14 & G

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER: C-M-10B

TOTAL QUANTITY: SF: ~ 54~~8~~ Total LF:

Sequential #	~~16~~ - 16	~~17~~ - 17	~~18~~ - 18
Location/FS	Bldg 13	Bldg 14	Bldg 14
Sample Origin	NW NE (SW) SE	NW NE SW (SE)	(NW) NE SW SE
E/W Location	~2'E	~18'W	~25'W
N/S Location	~~0~~	~~0~~	~~0~~
Height ^ Floor	2'	4'	5'
Component	Door	Window	Door
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

Sealant around windows, doors & wood panels

INSPECTOR(S) / ACCREDITATION NO.

- X Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- ☐ Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- ☐ Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- ☐ Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- ☐ John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- ☐ Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- ☐ Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE: [signature]

DATE: September 18, 2019

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 1 of ~~20~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Bldgs 6-14 & G

HOMOGENEOUS MATERIAL: Sealant

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER: C-M-10B

TOTAL QUANTITY:
SF: 546 Total LF:

Sequential #	19-19	20-20	3-
Location/FS	Bldg G	Bldg G	
Sample Origin	(NW) NE SW SE	NW NE SW (SE)	NW NE SW SE
E/W Location	0	0	
N/S Location	3' S	~3' N	
Height ^ Floor	4'	4'	
Component	Door	Door	
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

Sealant around windows, doors & wood panels

INSPECTOR(S) / ACCREDITATION NO.

- [X] Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- [ ] Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- [ ] Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- [ ] Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- [ ] John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- [ ] Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- [ ] Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE: [signature]

DATE: September 18, 2019

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 ~~26~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Bldgs 6-14 + G

HOMOGENEOUS MATERIAL: Expansion Joints

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER: C-M-10A

TOTAL QUANTITY: SF: ~~48~~ LF:

Sequential #	1 - 1	2 - 2	3 - 3
Location/FS	Bldg 7	Bldg 7	Bldg 6
Sample Origin	NW ~~NE~~ SW SE	NW NE SW ~~SE~~	NW ~~NE~~ SW SE
E/W Location	3' W	25' W	3' W
N/S Location	~~0~~	~~0~~	~~0~~
Height ^ Floor	24"	6'	24"
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

In CMU walls

INSPECTOR(S) / ACCREDITATION NO.

- X Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- ☐ Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- ☐ Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- ☐ Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- ☐ John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- ☐ Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- ☐ Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE:

DATE: September 18, 2019

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 ~~26~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Bldgs 6-14+G

HOMOGENEOUS MATERIAL: Expansion Joint

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER: C-M-10A

TOTAL QUANTITY:
SF: 48~~2~~
LF:

Sequential #	4 - 4	5 - 5	~~6~~ - 6
Location/FS	Bldg 6	Bldg 8	Bldg 8
Sample Origin	NW NE SW (SE)	NW (NE) SW SE	NW NE SW (SE)
E/W Location	~13' W	3' W	~15' W
N/S Location	~~0~~	~~0~~	~~0~~
Height ^ Floor	4'	24"	4'
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

In CMU walls

INSPECTOR(S) / ACCREDITATION NO.

- [X] Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- [ ] Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- [ ] Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- [ ] Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- [ ] John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- [ ] Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- [ ] Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE:

DATE: September 18, 2019

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 ~~20~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Bldgs 6-14 + G

HOMOGENEOUS MATERIAL: Expansion Joints

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER: C-M-10A

TOTAL QUANTITY: SF: 4/B Total LF:

	7-7	8-8	9-9
Sequential #			
Location/FS	Bldg 9	Bldg 9	Bldg 10
Sample Origin	~~NW~~ NE SW SE	NW ~~NE~~ SW SE	NW ~~NE~~ SW SE
E/W Location	14'E	4'W	12'W
N/S Location	~~0~~	~~0~~	~~0~~
Height ^ Floor	8"	24"	3"
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

In CMU Walls

INSPECTOR(S) / ACCREDITATION NO.

- X Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- ☐ Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- ☐ Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- ☐ Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- ☐ John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- ☐ Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- ☐ Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE: [signature]

DATE: September 18, 2019

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 14 of ~~20~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Bldgs 6-14 & Q

HOMOGENEOUS MATERIAL: Expansion

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER: C-M-18A

TOTAL QUANTITY: SF: ~~45~~ 48 LF:

Sequential #	~~10~~ - 10	~~11~~ - 11	~~12~~ - 12
Location/FS	Bldg 10	Bldg 11	Bldg 11
Sample Origin	NW NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	~15'E	~15'E	~15'E
N/S Location	~~0~~	~~0~~	0
Height ^ Floor	12"	12"	12"
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

In CMU Wall

INSPECTOR(S) / ACCREDITATION NO.

- X Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- ☐ Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- ☐ Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- ☐ Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- ☐ John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- ☐ Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- ☐ Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE: [signature]

DATE: September 18, 2019

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 12 14 of ~~20~~

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

Expansion Joints

SAMPLED SITE: Bldgs 6-14 & G

HOMOGENEOUS MATERIAL: C-M-10A

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER:

TOTAL QUANTITY: SF: 48 LF:

Sequential #	~~13~~ 13-13	~~14~~ 14-14	~~15~~ 15-15
Location/FS	Bldg 12	Bldg 12	Bldg 13
Sample Origin	NW NE SW SE	NW NE SW SE	NW NE SW SE
E/W Location	~14'E	~21'W	~20'E
N/S Location	0	0	0
Height ^ Floor	4'	24"	24"
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

In Chase walls

INSPECTOR(S) / ACCREDITATION NO.

- [X] Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- [ ] Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- [ ] Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- [ ] Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- [ ] John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- [ ] Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- [ ] Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE: [signature]

DATE: September 18, 2019

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 of ~~20~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Bldgs 6-14 & G

HOMOGENEOUS MATERIAL: Expansion Joint

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER:

TOTAL QUANTITY:

SF: ~~48~~ LF:

Sequential #	~~16~~-16	~~17~~-17	~~18~~-18
Location/FS	Bldg 13	Bldg 14	Bldg 14
Sample Origin	NW NE (SW) SE	NW (NE) SW SE	NW NE SW (SE)
E/W Location	~21'E	0	~12'W
N/S Location	0	~8'S	0
Height ^ Floor	24"	12"	12"
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

w/ CMU walls

INSPECTOR(S) / ACCREDITATION NO.

- [X] Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- [ ] Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- [ ] Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- [ ] Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- [ ] John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- [ ] Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- [ ] Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE:

DATE: September 18, 2019

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~~ 14

SITE ADDRESS: 1000 North Curiel Street, Eloy, AZ

SAMPLED SITE: Bldgs 6-14 & 6

HOMOGENEOUS MATERIAL: Expansion Joint

LOCATION BY FUNCTIONAL SPACE (FS):

SAMPLE NUMBER: C-M-18A

TOTAL QUANTITY: SF: ~~48~~ LF:

Sequential #	19 -19	20 -20	3 -
Location/FS	Bldg G	Bldg G	
Sample Origin	(NW) NE SW SE	NW NE SW (SE)	NW NE SW SE
E/W Location	~15E	15 W	
N/S Location	0	0	
Height ^ Floor	4'	4'	
Component	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

INSPECTOR(S) / ACCREDITATION NO.

- [X] Vicky Aviles, The Asbestos Institute (TAI), G9946, Expiration May 4, 2020
- [ ] Matthew Steinhoff, TAI ID No. G9028, Expiration October 5, 2019
- [ ] Alex Smith, TAI, ID No. G9101, Expiration November 2, 2019
- [ ] Theodore Stude, TAI, ID No. G9766, Expiration April 5, 2020
- [ ] John Holmquist, TAI, ID No. G9104, Expiration November 2, 2019
- [ ] Jason Criss, TAI, ID No. ON-4644-5308-060519, Expiration June 5, 2020
- [ ] Kambray Townsend, TAI, ID No. H1181, Expiration September 11, 2020

SIGNATURE: [signature]

DATE: September 18, 2019

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: Eloy
PROJECT ADDRESS: 1000 N. Curiel St
WT JOB NO.: 218-15 H269
PURCHASE ORDER NO.:
SAMPLER – SIGNATURE:
SAMPLER – PLEASE PRINT NAME: V. Aviles
PROJECT MANAGER: V. Aviles
EMAIL ADDRESS: vicky.a@wt-us.com
Single Layer

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD	VOLUME / AREA	COMMENTS
C-M-10819-19	9/18		1000 N. Curiel St	1	X								Sealant
C-M-10820-20	9/18		"	1	X								

Note: WTS Connect Job Number is - 218-15H269

RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED BY – SIGNATURE
	9/18/19		
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

Review of Analysis Request (Initials) SD

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: Elay	PROJECT ADDRESS: 1088 N. Curiel St
WT JOB NO: 468-4269	PURCHASE ORDER NO.
SAMPLER – SIGNATURE:	SAMPLER – PLEASE PRINT NAME: V. Aviles
PROJECT MANAGER: V. Aviles	EMAIL ADDRESS: vicky.a@wt-us.com
	Single Layer Analysis

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD	VOLUME / AREA	COMMENTS
C-M-1081-1	9/18/19		1088 N. Curiel St	1	X						PLM		Sealant
C-M-1082-2				1									
C-M-1083-3				1									
C-M-1084-4				1									
C-M-1085-5				1									
C-M-1086-6				1									
C-M-1087-7				1									
C-M-1088-8				1									
C-M-1089-9				1									
C-M-1090-10				1									
C-M-1091-11				1									
C-M-1092-12				1									
C-M-1093-13				1									
C-M-1094-14				1									
C-M-1095-15				1									
C-M-1096-16				1									
C-M-1097-17				1									
C-M-1098-18				1									

RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED BY – SIGNATURE	DATE	TIME
	9/18/19				
RELINQUISHED BY – SIGNATURE	DATE	TIME	RECEIVED FOR LABORATORY BY – SIGNATURE	DATE	TIME

REQUESTED TURNAROUND TIME
☐ 1-3 DAYS ☐ _____ HOURS

Review of Analysis Request (Initials) EW

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
Ecoy	1000 N. Curiel St.	V. Aviles
WT JOB NO.	PURCHASE ORDER NO.	EMAIL ADDRESS
218 & JH 269		vickya@wt-us.com
SAMPLER — *SIGNATURE*	SAMPLER — *PLEASE PRINT NAME*	Single Layer Analysis
	V. Aviles	

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD	VOLUME / AREA	COMMENTS
C-M-10A1-1	9/18/19		1000 N. Curiel St	1	X							PLM	Expansion Joint
C-M-10A2-2				1									4
C-M-10A3-3				1									4
C-M-10A4-4				1									4
C-M-10A5-5				1									4
C-M-10A6-6				1									4
C-M-10A7-7				1									4
C-M-10A8-8				1									4
C-M-10A9-9				1									4
C-M-10A10-10				1									4
C-M-10A11-11				1									4
C-M-10A12-12				1									4
C-M-10A13-13				1									4
C-M-10A14-14				1									4
C-M-10A15-15				1									4
C-M-10A16-16				1									4
C-M-10A17-17				1									4
C-M-10A18-18				1									4

RELINQUISHED BY — *SIGNATURE*	DATE	TIME	RECEIVED BY — *SIGNATURE*	RELINQUISHED BY — *SIGNATURE*	DATE	TIME	RECEIVED BY — *SIGNATURE*
	9/18/19						
RELINQUISHED BY — *SIGNATURE*	DATE	TIME	RECEIVED FOR LABORATORY BY — *SIGNATURE*	DATE	TIME	REQUESTED TURNAROUND TIME	
						☒ 1-3 DAYS ☐ ____ HOURS	

Review of Analysis Request (Initials) CH

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
EZOY	1000 N. Curiel BLT	U. Aviles
WT JOB NO.	PURCHASE ORDER NO.	EMAIL ADDRESS
2188JH269		vicky.a@wt-us.com
SAMPLER — *SIGNATURE*	SAMPLER — *PLEASE PRINT NAME*	Single Layer Analysis
	U. Aviles	COMMENTS

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: BULK	WIPE	SWAB	AIR	WATER	SOIL	TEST METHOD	VOLUME / AREA	COMMENTS
M-18A9-19	9/18/19		1000 N. Curiel St	1	X							PLM	
M-18A20-28													

RELINQUISHED BY — *SIGNATURE*	DATE	TIME	RECEIVED BY — *SIGNATURE*	RELINQUISHED BY — *SIGNATURE*	DATE	TIME	RECEIVED BY — *SIGNATURE*
	9/18/19						
RELINQUISHED BY — *SIGNATURE*	DATE	TIME	RECEIVED FOR LABORATORY BY — *SIGNATURE*	DATE	TIME	REQUESTED TURNAROUND TIME	
						☒ 1-3 DAYS ☐ _____ HOURS	

Review of Analysis Request (Initials) EM

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

FIBERQUANT ANALYTICAL SERVICES

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

JobNumber: 201909056

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

Office Phone: (602) 437-3737

FAX: (602) 470-1341

Correct WT Job # is 2188SH 269

 # Samples: 20 PLM **Rec:** 9/19/2019 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: 2189JH269/1000 N Curiel St **PO Number:**

Report Date: 9/23/2019 **Date Analyzed:** 9/23/2019 **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" or "non-regulated"and >1 % asbestos as "positive" or "regulated." 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." OSHA under CFR 1926.1101 regulates work done involving any detectable concentration of asbestos.

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: 201909056** 2189JH269/1000 N Curiel St

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number / *Asbestos Results*	Apparent Sample Type *	Asbestos Detected Yes or No
Sample # **C-M-10B1-1**			2019-09056- 1	Adhesive/caulk	Asbestos Detected? Yes
Layer # 1	tan	sealant	*>1-2% chrysotile asbestos*		
Sample # **C-M-10B2-2**			2019-09056- 2	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B3-3**			2019-09056- 3	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B4-4**			2019-09056- 4	Adhesive/caulk	Asbestos Detected? Yes
Layer # 1	tan	sealant	*>1-2% chrysotile asbestos*		
Sample # **C-M-10B5-5**			2019-09056- 5	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B6-6**			2019-09056- 6	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B7-7**			2019-09056- 7	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B8-8**			2019-09056- 8	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B9-9**			2019-09056- 9	Adhesive/caulk	Asbestos Detected? Yes
Layer # 1	tan	sealant	*>1-2% chrysotile asbestos*		
Sample # **C-M-10B10-10**			2019-09056- 10	Adhesive/caulk	Asbestos Detected? Yes
Layer # 1	tan	sealant	*>1-2% chrysotile asbestos*		
Sample # **C-M-10B11-11**			2019-09056- 11	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B12-12**			2019-09056- 12	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B13-13**			2019-09056- 13	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B14-14**			2019-09056- 14	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B15-15**			2019-09056- 15	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B16-16**			2019-09056- 16	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B17-17**			2019-09056- 17	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B18-18**			2019-09056- 18	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B19-19**			2019-09056- 19	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*no asbestos detected*		
Sample # **C-M-10B20-20**			2019-09056- 20	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant	*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 C-M-10B1-1 **Lab Number** 2019-09056- 1 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Fibrous Solid
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** Yes
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	tan	1
	Total %	100	**Overall %**	

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
>1-2%	-	-	-	-	-
>1-2%	-	-	-	-	-
Fiber Identification: chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	chrysotile asbestos	W	A	N	N	L	+	P
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per
1.550	db/ly	sb/o	1.561	1.553

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

Sample C-M-10B2-2 **Lab Number** 2019-09056- 2 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100	**Overall %**	

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-
Fiber Identification: none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B3-3 **Lab Number** 2019-09056- 3 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100	**Overall %**	

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-
Fiber Identification: none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B4-4 **Lab Number** 2019-09056- 4 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Fibrous Solid

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** Yes

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	tan	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	>1-2%	-	-	-	-	-
Overall %	>1-2%	-	-	-	-	-
Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	chrysotile asbestos	W	A	N	N	L	+	P
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per
1.550	db/ly	sb/o	1.561	1.553

Sample Analytical Note

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

Sample C-M-10B5-5 **Lab Number** 2019-09056- 5 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
Overall %	n.d.	-	-	-	-	-
Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B6-6 **Lab Number** 2019-09056- 6 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
Overall %	n.d.	-	-	-	-	-
Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B7-7 **Lab Number** 2019-09056- 7 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of 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 C-M-10B8-8 **Lab Number** 2019-09056- 8 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	white	1	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				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 C-M-10B9-9 **Lab Number** 2019-09056- 9 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Fibrous Solid
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** Yes
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	tan	1	>1-2%	-	-	-	-	-
	Total %	100		**Overall %**	>1-2%	-	-	-	-	-
				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 C-M-10B10-10 **Lab Number** 2019-09056- 10 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Fibrous Solid

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** Yes

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	tan	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
>1-2%	-	-	-	-	-
>1-2%	-	-	-	-	-

Fiber Identification: chrysotile asbestos

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	chrysotile asbestos	W	A	N	N	L	+	P
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per
1.550	db/ly	sb/o	1.561	1.553

Sample Analytical Note

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

Sample C-M-10B11-11 **Lab Number** 2019-09056- 11 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-

Fiber Identification: none

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B12-12 **Lab Number** 2019-09056- 12 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-

Fiber Identification: none

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B13-13 **Lab Number** 2019-09056- 13 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-

Fiber Identification: none

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B14-14 **Lab Number** 2019-09056- 14 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-

Fiber Identification: none

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B15-15 **Lab Number** 2019-09056- 15 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-

Fiber Identification: none

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B16-16 **Lab Number** 2019-09056- 16 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		

Calibrated Visual Estimate of Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
Overall %	n.d.	-	-	-	-	-
Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B17-17 **Lab Number** 2019-09056- 17 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		

Calibrated Visual Estimate of Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
Overall %	n.d.	-	-	-	-	-
Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B18-18 **Lab Number** 2019-09056- 18 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		

Calibrated Visual Estimate of Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
Overall %	n.d.	-	-	-	-	-
Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B19-19 **Lab Number** 2019-09056- 19 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-

Fiber Identification: none

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10B20-20 **Lab Number** 2019-09056- 20 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-

Fiber Identification: none

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 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: ROBERT A. McCORMICK

Printed: 23-Sep-19

Original Print Date: 23-Sep-19

Larry S. Pierce, Approved Accreditation Signatory

FIBERQUANT ANALYTICAL SERVICES

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

JobNumber: 201909055

Client: WESTERN TECHNOLOGIES INC

3737 E BROADWAY RD

PHOENIX, AZ 85040-2966

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

 # Samples: 20 PLM **Rec:** 9/18/2019 **Method:** EPA 600/R-93/116 The "New" Method; see below

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

Report Date: 9/23/2019 **Date Analyzed:** 9/23/2019 **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" or "non-regulated"and >1 % asbestos as "positive" or "regulated." 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." OSHA under CFR 1926.1101 regulates work done involving any detectable concentration of asbestos.

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.
C-M-10A10-10 sample bag was empty, proceed without per client.

PLM Analysis Summary: **Job Number: 201909055** 2188JH269 /1000 N Curiel St

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type * / *Asbestos Results*	Asbestos Detected Yes or No
Sample # **C-M-10A1-1**			2019-09055- 1	Miscellaneous	Asbestos Detected? No
Layer # 1	brown	expansion joint		*no asbestos detected*	
Sample # **C-M-10A2-2**			2019-09055- 2	Miscellaneous	Asbestos Detected? No
Layer # 1	brown	expansion joint		*no asbestos detected*	
Sample # **C-M-10A3-3**			2019-09055- 3	Miscellaneous	Asbestos Detected? No
Layer # 1	brown	expansion joint		*no asbestos detected*	
Sample # **C-M-10A4-4**			2019-09055- 4	Miscellaneous	Asbestos Detected? No
Layer # 1	brown	expansion joint		*no asbestos detected*	
Sample # **C-M-10A5-5**			2019-09055- 5	Miscellaneous	Asbestos Detected? No
Layer # 1	brown	expansion joint		*no asbestos detected*	
Sample # **C-M-10A6-6**			2019-09055- 6	Miscellaneous	Asbestos Detected? No
Layer # 1	brown	expansion joint		*no asbestos detected*	
Sample # **C-M-10A7-7**			2019-09055- 7	Miscellaneous	Asbestos Detected? No
Layer # 1	brown	expansion joint		*no asbestos detected*	
Sample # **C-M-10A8-8**			2019-09055- 8	Miscellaneous	Asbestos Detected? No
Layer # 1	brown	expansion joint		*no asbestos detected*	
Sample # **C-M-10A9-9**			2019-09055- 9	Miscellaneous	Asbestos Detected? No
Layer # 1	brown	expansion joint		*no asbestos detected*	
Sample # **C-M-10A10-10**			2019-09055- 10	Not Analyzed	
Sample # **C-M-10A11-11**			2019-09055- 11	Miscellaneous	Asbestos Detected? No
Layer # 1	tan	expansion joint		*no asbestos detected*	
Sample # **C-M-10A12-12**			2019-09055- 12	Miscellaneous	Asbestos Detected? No
Layer # 1	tan	expansion joint		*no asbestos detected*	
Sample # **C-M-10A13-13**			2019-09055- 13	Miscellaneous	Asbestos Detected? No
Layer # 1	tan	expansion joint		*no asbestos detected*	
Sample # **C-M-10A14-14**			2019-09055- 14	Miscellaneous	Asbestos Detected? No
Layer # 1	tan	expansion joint		*no asbestos detected*	
Sample # **C-M-10A15-15**			2019-09055- 15	Miscellaneous	Asbestos Detected? No
Layer # 1	off-white	foam		*no asbestos detected*	
Sample # **C-M-10A16-16**			2019-09055- 16	Miscellaneous	Asbestos Detected? No
Layer # 1	tan	expansion joint		*no asbestos detected*	
Sample # **C-M-10A17-17**			2019-09055- 17	Miscellaneous	Asbestos Detected? No
Layer # 1	off-white	foam		*no asbestos detected*	
Sample # **C-M-10A18-18**			2019-09055- 18	Miscellaneous	Asbestos Detected? No
Layer # 1	tan	expansion joint		*no asbestos detected*	
Sample # **C-M-10A19-19**			2019-09055- 19	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant		*no asbestos detected*	
Sample # **C-M-10A20-20**			2019-09055- 20	Adhesive/caulk	Asbestos Detected? No
Layer # 1	white	sealant		*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 C-M-10A1-1 **Lab Number** 2019-09055- 1 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers					Calibrated Visual Estimate of Percents of Each Fiber					
#	Layer Type	%	Color	Friability	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	expansion joint	100	brown	1	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 C-M-10A2-2 **Lab Number** 2019-09055- 2 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers					Calibrated Visual Estimate of Percents of Each Fiber					
#	Layer Type	%	Color	Friability	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	expansion joint	100	brown	1	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 C-M-10A3-3 **Lab Number** 2019-09055- 3 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers					Calibrated Visual Estimate of Percents of Each Fiber					
#	Layer Type	%	Color	Friability	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	expansion joint	100	brown	1	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 C-M-10A4-4 **Lab Number** 2019-09055- 4 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	expansion joint	100	brown	1	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 C-M-10A5-5 **Lab Number** 2019-09055- 5 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	expansion joint	100	brown	1	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 C-M-10A6-6 **Lab Number** 2019-09055- 6 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	expansion joint	100	brown	1	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. Procedure: dissolution of matrix using solvent.

Sample C-M-10A7-7 **Lab Number** 2019-09055- 7 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability
1	expansion joint	100	brown	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
90-100%	-	-	-	-	-
90-100%	-	-	-	-	-
Fiber Identification: cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
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 matrix using solvent.

Sample C-M-10A8-8 **Lab Number** 2019-09055- 8 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability
1	expansion joint	100	brown	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
90-100%	-	-	-	-	-
90-100%	-	-	-	-	-
Fiber Identification: cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
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.

Sample C-M-10A9-9 **Lab Number** 2019-09055- 9 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability
1	expansion joint	100	brown	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
90-100%	-	-	-	-	-
90-100%	-	-	-	-	-
Fiber Identification: cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
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.

Sample C-M-10A11-11 **Lab Number** 2019-09055- 11 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	expansion joint	100	tan	1	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 C-M-10A12-12 **Lab Number** 2019-09055- 12 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	expansion joint	100	tan	1	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 C-M-10A13-13 **Lab Number** 2019-09055- 13 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	expansion joint	100	tan	1	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 C-M-10A14-14 **Lab Number** 2019-09055- 14 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	expansion joint	100	tan	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
90-100%	-	-	-	-	-
90-100%	-	-	-	-	-
Fiber Identification:	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
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.

Sample C-M-10A15-15 **Lab Number** 2019-09055- 15 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	foam	100	off-white	3
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-
Fiber Identification:	none				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 matrix using solvent.

Sample C-M-10A16-16 **Lab Number** 2019-09055- 16 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	expansion joint	100	tan	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
90-100%	-	-	-	-	-
90-100%	-	-	-	-	-
Fiber Identification:	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
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.

Sample C-M-10A17-17 **Lab Number** 2019-09055- 17 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): polymer foam, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	foam	100	off-white	3	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 C-M-10A18-18 **Lab Number** 2019-09055- 18 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Miscellaneous Fibrous Mat
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	expansion joint	100	tan	1	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 C-M-10A19-19 **Lab Number** 2019-09055- 19 **Sampled:** 9/18/2019 **Condition:** acceptable
Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery
Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No
Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Calibrated Visual Estimate of 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.

PLM Analysis Details **Job Number:** **201909055** 2188JH269 /1000 N Curiel St

Sample C-M-10A20-20 **Lab Number** 2019-09055- 20 **Sampled:** 9/18/2019 **Condition:** acceptable

Analyzed By RAM 9/23/2019 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous Yes **# Layers** 1 **Asbestos Detected?** No

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

Layers

#	Layer Type	%	Color	Friability
1	sealant	100	white	1
	Total %	100		**Overall %**

Calibrated Visual Estimate of Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
n.d.	-	-	-	-	-
n.d.	-	-	-	-	-
Fiber Identification:	none				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	none							
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 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: ROBERT A. McCORMICK

Printed: 23-Sep-19

Original Print Date: 23-Sep-19

Larry S. Pierce, Approved Accreditation Signatory

G 9946

THE ASBESTOS INSTITUTE

Certifies that

Vicky L Aviles

has attended the EPA approved course

AHERA Building Inspector Refresher
May 3, 2019

and successfully passed the competency exam.

Date of Examination: May 3, 2019

Date of Expiration: May 3, 2020

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: September 24, 2019

Picture 1 – Expansion joint in masonry walls, typical.

Picture 2 – Exterior exposed window walls.

Picture 3 – Sealant between window frames and masonry, typical.

Picture 4 – Sealant around door in the Gymnasium.

Picture 5 – Window walls suspected to be located underneath wood panels.

Picture 6 – Doors with sealant between frames and masonry, typical.