EA Engineering, Science
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4 May 2026

Mr. Ray McDermott
Lead Engineer
APG - Directorate of Public Works
Engineering Branch / IMIM-APP-G
Building 4304
6504 Rodman Road
APG, MD 21005-5001

Subject: Pre-Demolition Asbestos and Lead Based Paint Survey of Building 4504
EA Proposal No. 0753170-4504

Dear Mr. McDermott:

Per your request and in accordance with EA Engineering, Science, and Technology, Inc., PBC (EA) proposal number 0753170-4504, EA was contracted by the Aberdeen Proving Ground – Directorate of Public Works (APG-DPW) to perform a limited asbestos-containing material (ACM) and lead-based paint (LBP) survey of the first floor of Building 4504. This was in support of the planned demolition/renovation of Building 4504 in the Aberdeen Area of APG. The upcoming repairs are expected to affect building materials and systems within the selected building's interior and roof.

EA conducted the ACM and LBP survey on 21 April 2026. Sampling activities involved the collection of bulk samples from suspect asbestos-containing materials (ACM) to determine asbestos content, and the screening of paint surfaces to determine lead content using a Niton Xlp-300 x-ray fluorescence (XRF) analyzer.

Introduction

Current federal and state environmental regulations require that certain potentially hazardous materials that may be affected by building alteration activities be identified and removed prior to conducting these activities.

In the case of asbestos, Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and State of Maryland regulatory requirements contained in 40 Code of Federal Regulations (CFR) 61, 29 CFR 1926.1101, and Code of Maryland Regulations (COMAR) 26.11.21, respectively, require that ACM be identified, and that friable ACM and ACM that has the potential to become friable, be removed prior to conducting alteration activities that may disturb these materials. EA conducted an asbestos inspection in accordance with Asbestos Hazard Emergency Response Act (AHERA) inspection and sampling protocols to determine the presence of asbestos in building materials throughout the building.

Requirements for the identification and notification of the presence of lead-based paint (LBP) and lead-containing paint (LCP) are found in 29 CFR 1926.62. Although LBP/LCP removal is

not required prior to building alteration, contractors working in areas where LBP/LCP is present must be notified of its location and must take appropriate action to minimize its disturbance and protect workers and the environment. In many cases, removal of leaded paint presents the only viable option to limiting exposure. Lead-containing waste must also be sampled to determine appropriate disposal requirements.

Methodology

Asbestos-Containing Materials

The ACM inspection was conducted in accordance with EPA Standard 40 CFR 763, Subpart E, AHERA inspection and sampling protocol, which included identifying homogeneous areas of suspect ACM, determination of suspect ACM friability, assessing homogeneous areas of suspect ACM to determine condition, and collection of samples of suspect ACM to determine asbestos content. Sampling rationale is based on AHERA sampling requirements for each type of material.

The asbestos inspection was a nonintrusive investigation performed to identify suspect ACM in accessible building areas. Samples of suspected ACM were submitted to AMA Analytical Services, Inc. for analysis by Polarized Light Microscopy (PLM) in accordance with the EPA Method for the Determination of Asbestos in Bulk Insulation Samples (EPA/600/R-93/116), utilizing positive stop methodology. In this method, a sample set representing a homogeneous area of suspect ACM is analyzed until a result indicating >1% asbestos is obtained. Once such a result is obtained, any additional samples in the set are not analyzed and the homogeneous area is considered to be asbestos containing. If no results indicating >1% asbestos are obtained via PLM, the homogeneous area is considered to be non-asbestos. AMA Analytical Services, Inc. is accredited by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) and by the American Industrial Hygiene Association (AIHA).

Lead-Based Paint and Lead-Containing Paint

EA conducted an LBP/LCP survey of accessible interior surfaces to identify building components (e.g., walls, doors and related components, heating system components) with lead coatings (paint, glaze, stain, varnish, etc.). The survey consisted of onsite testing utilizing a Thermo Scientific Niton XLp 300 X-Ray fluorescence (XRF) spectrum analyzer.

At this time, there are no federal or state regulations that specifically identify testing procedures for non-residential structures scheduled for building alteration. U.S. Department of Housing and Urban Development (HUD) sampling requirements were not required for this project; therefore, EA followed the XRF manufacturer's testing methodology during the survey. Prior to obtaining readings from suspect LBP surfaces, the XRF was calibrated in accordance with the manufacturer's instructions. Calibration checks were performed prior to and at the completion of the inspection, and at the manufacturer's specified time intervals.

Surfaces were identified as LBP if the result met the State of Maryland definition of LBP, which is greater than 0.7 milligrams per square centimeter (mg/cm^2). XRF readings greater than 0.0 mg/cm^2 but less than or equal to 0.7 mg/cm^2 are identified as LCP.

RESULTS

Asbestos-Containing Materials

EA collected forty-three (43) bulk samples representing sixteen (16) homogeneous areas of suspect ACM from interior and roof areas of the building. ACM is defined by EPA standards as materials determined to contain greater than 1% asbestos. None of the forty-three (43) samples collected, representing sixteen (16) homogenous areas sampled during the 21 April 2026 survey, were found to contain greater than 1% asbestos.

Sample forms are included in Attachment I. Sample diagrams, laboratory analytical results and chain-of-custody forms, and inspector certifications are included in Attachments II, III, and IV, respectively. A photographic log of findings is included in Attachment VI. Assumed ACM materials are included in Table 1 below along with descriptions and quantities of ACM in the building.

Lead-Based Paint and Lead-Containing Paint

Based on XRF results, six (6) of the surface coatings tested were identified as LBP (lead concentration greater than 0.7 mg/cm^2). Nine (9) surface coatings were identified as LCP with lead concentrations ranging from 0.01 to 0.6 mg/cm^2 and are listed below in Table 2.

In the case of the ceramic tile, bathtub and sink materials, these materials are lead containing materials (the lead is contained in the ceramic glazing of the material, not in a paint coating).

Table 1: Building 4504 Identified LBP

Component	Substrate	Color	Room (where tested)	Floor	Lead (mg/cm^2)
WALL	CERAMIC	BLUE	123 BATH	FIRST	7.60
WALL	CERAMIC	BLUE	123 BATH	FIRST	7.20
WALL	CERAMIC	BLUE	123 BATH	FIRST	9.80
WALL	CERAMIC	BLUE	123 BATH	FIRST	8.00
BATHTUB	CERAMIC	WHITE	123 BATH	FIRST	7.00
SINK	CERAMIC	WHITE	123 BATH	FIRST	7.80

Table 2: Building 4504 Identified LCP

Component	Substrate	Color	Room (where tested)	Floor	Lead (mg/cm^2)
WALL	CBLOCK	BEIGE	HALL	FIRST	0.01
WALL	CBLOCK	BEIGE	HALL	FIRST	0.01
WALL	CERAMIC	GREY	HALL	FIRST	0.01
WALL	CERAMIC	BEIGE	HALL	FIRST	0.03
WALL	CERAMIC	BEIGE	HALL	FIRST	0.01
RISER	METAL	TAN	STAIR 2	FIRST	0.01
HANDRAIL	METAL	TAN	STAIR 2	FIRST	0.01
RADIATOR	METAL	TAN	STAIR 2	FIRST	0.01
TOILET	CERAMIC	WHITE	123 BATH	FIRST	0.03

Inspector certifications are included in Attachment IV. XRF screening results are included in Attachment V. A photographic log is included in Attachment VI.

DISCUSSION AND RECOMMENDATIONS

Asbestos-Containing Materials

Based upon survey and sampling conducted during the 21 April 2026 ACM sampling event, management of ACM prior to planned renovation work is not required.

If suspect ACM not already identified and sampled during prior inspections is discovered during renovation activities, those materials should be sampled to determine asbestos content and managed appropriately should they be determined to be ACM.

Lead-based and Lead-containing Paint

LBP was identified on six (6) tested surfaces of the building and LCP was identified on nine (9) tested surfaces of the building. These included various ceramic, wood, metal, and concrete surfaces.

In the case of the ceramic tile, bathtub and sink materials, these materials are lead containing materials (the lead is contained in the ceramic glazing of the material, not in a paint coating).

Removal of LBP and LCP prior to building alteration is not required. However, workers must be made aware of potential LBP and LCP hazards. OSHA has stated that any detectable concentrations of lead may trigger certain provisions of 29 CFR 1926.62. Therefore, should building alteration activities include these surfaces, worker protection requirements and engineering controls to protect unaffected areas of the building from lead contamination, should be implemented in accordance with the regulation.

As with any painted surface, the underlying paint layers can vary in color and lead content. Therefore, negative test results for a given component and surface color should not be relied upon for similar appearing components. For instance, the same color surface paint on doors can produce negative results on some doors and be positive (due to underlying paint) on other doors.

Untested building components or structures should be considered to contain regulated levels of lead until subsequent testing shows otherwise. However, the same positive test combinations of substrate, paint color, and component at one location should be assumed to contain lead at locations not specifically sampled.

DISCLAIMER

EA does not warrant that there is no asbestos, LBP/LCP in areas of the facility not inspected as part of this scope of work, nor does EA accept any liability if such is found at some future time or could have been found if additional analyses or studies were conducted. EA does not assume responsibility for other environmental issues that may be associated with the subject facility.

In view of the rapidly changing status of environmental laws, regulations, and guidelines, EA cannot be responsible for changes in laws, regulations, or guidelines that occur after the study has been completed and which may affect the facility. This report was prepared for APG-DPW by EA. Any transfer of information contained in this report can be conducted only if written consent is provided by APG-DPW.

Thank you for the opportunity to provide environmental services to APG-DPW. Should you have any questions or comments regarding this report, please do not hesitate to call me directly at (410) 671-6057.

Sincerely,

EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC., PBC

Scott Dobson
Project Manager

Attachments:
I – Asbestos Inspection Sampling Form
II – Asbestos Sampling Location Diagram
III – Analytical Laboratory Results
IV – Inspector Certification
V – XRF Screening Results
VI – Photographic Log

ATTACHMENT I:

ASBESTOS INSPECTION SAMPLING FORM

ASBESTOS INSPECTION SAMPLING FORM

Location/Date: 4504 Aberdeen Area, APG

Inspector: Mackenzie Smith

HA	Sample Number	Location (Floor#, Room/Area)	Type of Material (TSI, Surfacing, Misc., etc.)	Description (Color, Size, Feature, etc.)	Friable (Y/N)	Condition (Good/Fair/Poor/Damaged/Sig. Damaged)	Percent Damaged	Estimated Quantity (SF/LF)	Other Locations in Building If Known	Sampling Result (Type and % ACM)
DW1	4504-DW1-A	Throughout	Miscellaneous (MISC)	White drywall located throughout	Y	Good	0%	300 SF	NA	Negative
DW1	4504-DW1-B	Throughout	MISC	White drywall located throughout	Y	Good	0%	300 SF	NA	Negative
DW1	4504-DW1-C	Throughout	MISC	White drywall located throughout	Y	Good	0%	300 SF	NA	Negative
JC1	4504-JC1-A	Throughout	MISC	White joint compound located throughout	Y	Good	0%	50 LF	NA	Negative
JC1	4504-JC1-B	Throughout	MISC	White joint compound located throughout	Y	Good	0%	50 LF	NA	Negative
JC1	4504-JC1-C	Throughout	MISC	White joint compound located throughout	Y	Good	0%	50 LF	NA	Negative
CT1	4504-CT1-A	Throughout	MISC	White ceiling tile located throughout	Y	Good	0%	2,500 SF	NA	Negative

CT1	4504-CT1-B	Throughout	MISC	White ceiling tile located throughout	Y	Good	0%	2,500 SF	NA	Negative
CT1	4504-CT1-C	Throughout	MISC	White ceiling tile located throughout	Y	Good	0%	2,500 SF	NA	Negative
DM 1	4504-DM1-A	Kitchen Room	MISC	Grey duct mastic located in kitchen space	N	Good	0%	2 LF	NA	Negative
FT1	4504-FT1-A	Throughout	Surfacing Material (SM)	Grey 12"x12" floor tile	N	Good	0%	1,500 SF	NA	Negative
FM1	4504-FM1-A	Throughout	MISC	Black mastic associated with grey tile	N	Good	0%	1,500 SF	NA	Negative
FT1	4504-FT1-B	Throughout	SM	Grey 12"x12" floor tile	N	Good	0%	1,500 SF	NA	Negative
FM1	4504-FM1-B	Throughout	MISC	Black mastic associated with grey tile	N	Good	0%	1,500 SF	NA	Negative
FT1	4504-FT1-C	Throughout	SM	Grey 12"x12" floor tile	N	Good	0%	1,500 SF	NA	Negative
FM1	4504-FM1-C	Throughout	MISC	Black mastic associated with grey tile	N	Good	0%	1,500 SF	NA	Negative
FT2	4504-FT2-A	Throughout	SM	Tan 12"x12" floor tile	N	Good	0%	350 SF	NA	Negative
FM2	4504-FM2-A	Throughout	MISC	Black mastic associate with tan tile	N	Good	0%	350 SF	NA	Negative
FT2	4504-FT2-B	Throughout	SM	Tan 12"x12" floor tile	N	Good	0%	350 SF	NA	Negative

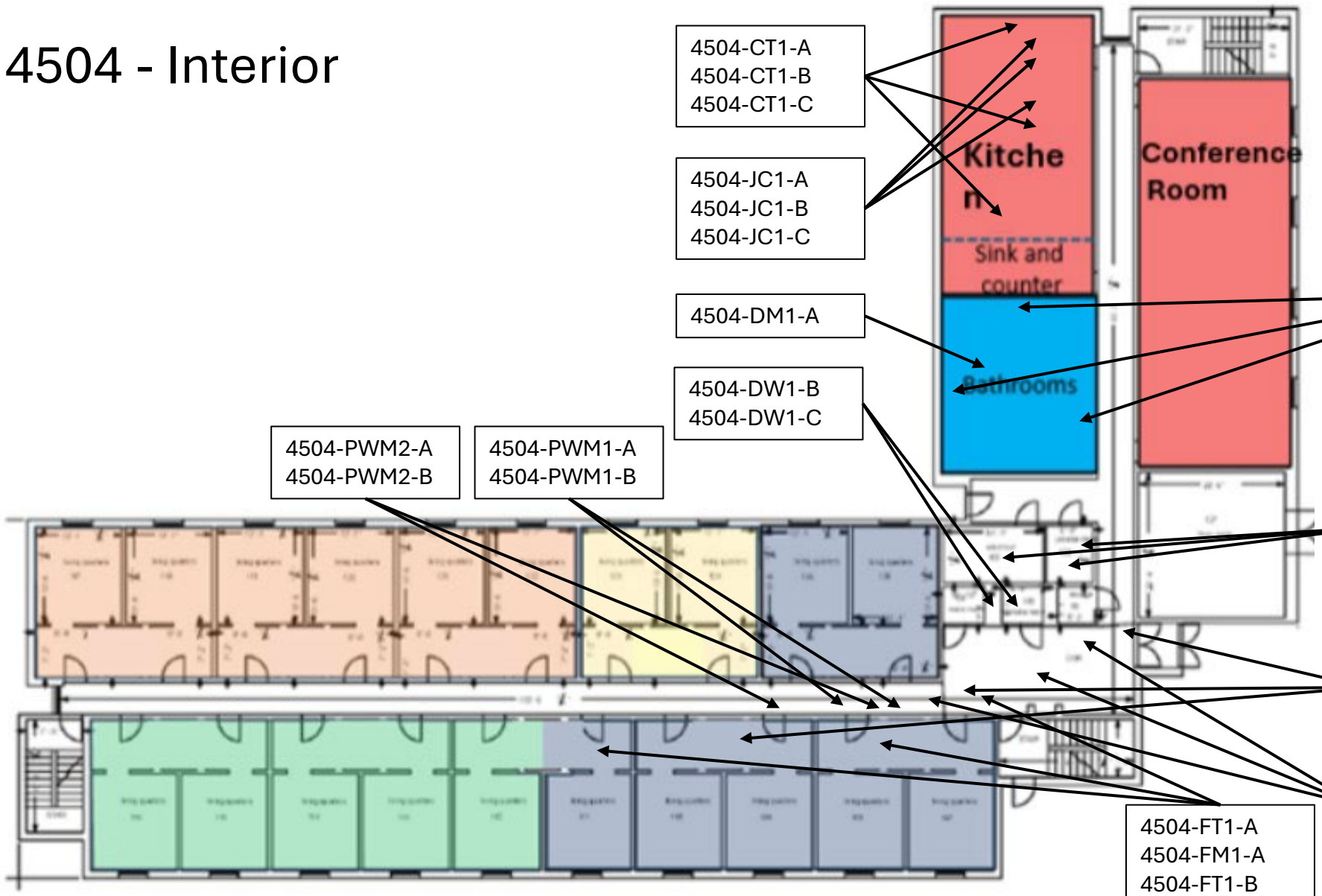
FM2	4504-FM2-B	Throughout	MISC	Black mastic associate with tan tile	N	Good	0%	350 SF	NA	Negative
FT2	4504-FT2-C	Throughout	SM	Tan 12"x12" floor tile	N	Good	0%	350 SF	NA	Negative
FM2	4504-FM2-C	Throughout	MISC	Black mastic associate with tan tile	N	Good	0%	350 SF	NA	Negative
CB1	4504-CB1-A	Throughout	MISC	Black cove base located throughout	N	Good	0%	750 LF	NA	Negative
CBM1	4504-CBM1-A	Throughout	MISC	Yellow mastic associated with black cove base	N	Good	0%	750 LF	NA	Negative
CB1	4504-CB1-B	Throughout	MISC	Black cove base located throughout	N	Good	0%	750 LF	NA	Negative
CBM1	4504-CBM1-B	Throughout	MISC	Yellow mastic associated with black cove base	N	Good	0%	750 LF	NA	Negative
CB1	4504-CB1-C	Throughout	MISC	Black cove base located throughout	N	Good	0%	750 LF	NA	Negative
CBM1	4504-CBM1-C	Throughout	MISC	Yellow mastic associated with black cove base	N	Good	0%	750 LF	NA	Negative
DWM1	4504-DWM1-A	Telephone Room	MISC	White duct wrap mastic located in telephone room	N	Good	0%	20 SF	NA	Negative
DWM1	4504-DWM1-B	Telephone Room	MISC	White duct wrap mastic located in telephone room	N	Good	0%	20 SF	NA	Negative
DWM1	4504-DWM1-C	Telephone Room	MISC	White duct wrap mastic located in telephone room	N	Good	0%	20 SF	NA	Negative

PWM1	4504-PWM1-A	Throughout	MISC	Small white pipe wrap mastic located throughout	N	Good	0%	30 LF	NA	Negative
PWM1	4504-PWM1-B	Throughout	MISC	Small white pipe wrap mastic located throughout	N	Good	0%	30 LF	NA	Negative
PWM1	4504-PWM1-C	Throughout	MISC	Small white pipe wrap mastic located throughout	N	Good	0%	30 LF	NA	Negative
PWM2	4504-PWM2-A	Throughout	MISC	Medium white pipe wrap mastic located throughout	N	Good	0%	30 LF	NA	Negative
PWM2	4504-PWM2-B	Throughout	MISC	Medium white pipe wrap mastic located throughout	N	Good	0%	30 LF	NA	Negative
PWM2	4504-PWM2-C	Throughout	MISC	Medium white pipe wrap mastic located throughout	N	Good	0%	30 LF	NA	Negative
RM1	4504-RM1-A	Roof	MISC	Black roof mastic	N	Good	0%	25 SF	NA	Negative
RM1	4504-RM1-B	Roof	MISC	Black roof mastic	N	Good	0%	25 SF	NA	Negative
RT1	4504-RT1-A	Roof	MISC	Black roof tar	N	Good	0%	25 SF	NA	Negative
RT1	4504-RT1-B	Roof	MISC	Black roof tar	N	Good	0%	25 SF	NA	Negative
RC1	4504-RC1-A	Roof	MISC	Black roof caulk	N	Good	0%	10 LF	NA	Negative
RC1	4504-RC1-B	Roof	MISC	Black roof caulk	N	Good	0%	10 LF	NA	Negative

ATTACHMENT II:

ASBESTOS SAMPLING LOCATION DIAGRAM

Building 4504 - Interior



4504-CT1-A
4504-CT1-B
4504-CT1-C

4504-JC1-A
4504-JC1-B
4504-JC1-C

4504-DM1-A

4504-DW1-B
4504-DW1-C

4504-DW1-A
4504-PWM1-C
4504-PWM2-C

4504-PWM2-A
4504-PWM2-B

4504-PWM1-A
4504-PWM1-B

4504-DWM1-A
4504-DWM1-B
4504-DWM1-C

4504-CB1-A
4504-CBM1-A
4504-CB1-B
4504-CBM1-B
4504-CB1-C
4504-CBM1-C

4504-FT1-A
4504-FM1-A
4504-FT1-B
4504-FM1-B
4504-FT1-C
4504-FM1-C

4504-FT2-A
4504-FM2-A
4504-FT2-B
4504-FM2-B
4504-FT2-C
4504-FM2-C

Building 4504 - Roof

ATTACHMENT III:

ANALYTICAL LABORATORY RESULTS

AMA Analytical Services, Inc.
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CERTIFICATE OF ANALYSIS

NVLAP TESTING
Lab Code 101143-0

Chain of Custody:	679426	**Job Name:**	Building 4504	**Date Submitted:**	04-22-2026
Client:	EA Engineering, Science, and Technology	**Job Location:**	APG	**Date Analyzed:**	04-24-2026
Address:	225 Schilling Circle Suite 400 Hunt Valley MD 21031	**Job Number:**	Not Provided	**Report Date:**	04-24-2026
Attention:	Scott Dobson	**P.O. Number:**	19489	**Date Sampled:**	04-21-2026
				Person Submitting:	Mackenzie Smith

Summary of Polarized Light Microscopy

AMA Sample Number	Client Sample Number	Total Asbestos	Chrysotile Percent	Amosite Percent	Crocidolite Percent	Other Asbestos Percent	Mineral Wool Percent	Fiberglass Percent	Organic Percent	Synthetic Percent	Other Percent	Particulate Percent	Sample Type	Sample Color	Homogeneity	Analyst ID	Comments
679426-1	4504-DW1-A	NAD	--	--	--	--	--	--	10	--	--	90	DW	Multi	Layered	PC	
679426-2	4504-DW1-B	NAD	--	--	--	--	--	--	10	--	--	90	DW	Multi	Layered	PC	
679426-3	4504-DW1-C	NAD	--	--	--	--	--	--	10	--	--	90	DW	Multi	Layered	PC	
679426-4	4504-JC1-A	NAD	--	--	--	--	--	--	--	--	--	100	JC	White	Homogenous	PC	
679426-5	4504-JC1-B	NAD	--	--	--	--	--	--	--	--	--	100	JC	White	Homogenous	PC	
679426-6	4504-JC1-C	NAD	--	--	--	--	--	--	--	--	--	100	JC	White	Homogenous	PC	
679426-7	4504-CT1-A	NAD	--	--	--	--	50	--	--	--	--	50	CT	Multi	Layered	PC	
679426-8	4504-CT1-B	NAD	--	--	--	--	50	--	--	--	--	50	CT	Multi	Layered	PC	
679426-9	4504-CT1-C	NAD	--	--	--	--	50	--	--	--	--	50	CT	Multi	Layered	PC	
679426-10	4504-DM1-A	NAD	--	--	--	--	--	--	--	--	--	100	DM	Gray	Homogenous	PC	
679426-11	4504-FT1-A	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogenous	PC	
679426-12	4504-FM1-A	NAD	--	--	--	--	--	--	--	--	2	98	MS	Black	Homogenous	PC	
679426-13	4504-FT1-B	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogenous	PC	
679426-14	4504-FM1-B	NAD	--	--	--	--	--	--	--	--	2	98	MS	Black	Homogenous	PC	
679426-15	4504-FT1-C	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogenous	PC	
679426-16	4504-FM1-C	NAD	--	--	--	--	--	--	--	--	2	98	MS	Black	Homogenous	PC	
679426-17	4504-FT2-A	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogenous	PC	
679426-18	4504-FM2-A	NAD	--	--	--	--	--	--	--	--	2	98	MS	Black	Homogenous	PC	

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				Person Submitting:	Mackenzie Smith

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679426-19	4504-FT2-B	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogenous	PC	
679426-20	4504-FM2-B	NAD	--	--	--	--	--	--	--	--	2	98	MS	Black	Homogenous	PC	
679426-21	4504-FT2-C	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogenous	PC	
679426-22	4504-FM2-C	NAD	--	--	--	--	--	--	--	--	2	98	MS	Black	Homogenous	PC	
679426-23	4504-CB1-A	NAD	--	--	--	--	--	--	--	--	--	100	CB	Black	Homogenous	PC	
679426-24	4504-CBM1-A	NAD	--	--	--	--	--	--	--	--	--	100	MS	Yellow	Homogenous	PC	
679426-25	4504-CB1-B	NAD	--	--	--	--	--	--	--	--	--	100	CB	Black	Homogenous	PC	
679426-26	4504-CBM1-B	NAD	--	--	--	--	--	--	--	--	--	100	MS	Yellow	Homogenous	PC	
679426-27	4504-CB1-C	NAD	--	--	--	--	--	--	--	--	--	100	CB	Black	Homogenous	PC	
679426-28	4504-CBM1-C	NAD	--	--	--	--	--	--	--	--	--	100	MS	Yellow	Homogenous	PC	
679426-29	4504-DWM1-A	NAD	--	--	--	--	--	--	--	--	--	100	DM	White	Homogenous	PC	
679426-30	4504-DWM1-B	NAD	--	--	--	--	--	--	--	--	--	100	DM	White	Homogenous	PC	
679426-31	4504-DWM1-C	NAD	--	--	--	--	--	TR	TR	--	--	100	DM	White	Homogenous	PC	
679426-32	4504-PWM1-A	NAD	--	--	--	--	--	TR	--	--	--	100	PM	White	Homogenous	PC	

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Attention:	Scott Dobson	**P.O. Number:**	19489	**Date Sampled:**	04-21-2026
				Person Submitting:	Mackenzie Smith

Summary of Polarized Light Microscopy

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679426-33	4504-PWM1-B	NAD	--	--	--	--	--	--	--	--	--	100	PM	White	Homogenous	PC	
679426-34	4504-PWM1-C	NAD	--	--	--	--	--	2	20	--	--	78	PM	White	Homogenous	PC	
679426-35	4504-PWM2-A	NAD	--	--	--	--	--	--	--	--	--	100	PM	White	Homogenous	PC	
679426-36	4504-PWM2-B	NAD	--	--	--	--	--	TR	TR	--	--	100	PM	White	Homogenous	PC	
679426-37	4504-PWM2-C	NAD	--	--	--	--	--	2	20	--	--	78	PM	White	Homogenous	PC	
679426-38	4504-RM1-A	NAD	--	--	--	--	--	--	--	--	--	100	MS	Black	Homogenous	PC	
679426-39	4504-RM1-B	NAD	--	--	--	--	--	--	--	--	--	100	MS	Black	Homogenous	PC	
679426-40	4504-RT1-A	NAD	--	--	--	--	--	--	5	--	--	95	Tar	Black	Homogenous	PC	
679426-41	4504-RT1-B	NAD	--	--	--	--	--	--	5	--	--	95	Tar	Black	Homogenous	PC	
679426-42	4504-RC1-A	NAD	--	--	--	--	--	--	--	--	--	100	CK	Black	Homogenous	PC	
679426-43	4504-RC1-B	NAD	--	--	--	--	--	--	--	--	--	100	CK	Black	Homogenous	PC	

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NVLAP TESTING
Lab Code 101143-0

Chain of Custody:	679426	**Job Name:**	Building 4504	**Date Submitted:**	04-22-2026
Client:	EA Engineering, Science, and Technology	**Job Location:**	APG	**Date Analyzed:**	04-24-2026
Address:	225 Schilling Circle Suite 400 Hunt Valley MD 21031	**Job Number:**	Not Provided	**Report Date:**	04-24-2026
Attention:	Scott Dobson	**P.O. Number:**	19489	**Date Sampled:**	04-21-2026
				Person Submitting:	Mackenzie Smith

Summary of Polarized Light Microscopy

The following footnotes only apply to those samples which the total asbestos result is flagged with a note number.

[1] TEM RECOMMENDATION - Please note, due to resolution limitations with optical microscopy and/or interference from matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos. It is recommended that the additional analytical technique of TEM be used to check for asbestos fibers below the resolution limits of optical microscopy.

[2] MATRIX REDUCTION RECOMMENDATION – Please note, due to interference from the matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos which is obscured from view. It is recommended that the additional preparation technique of gravimetric reduction be performed on this sample to minimize the obscuring effects of matrix components, followed by reanalysis by PLM and/or TEM.

Analysis Method – EPA/600/R-93/116 dated July 1993 and EPA 600/M4/82/020 dated December 1982
NAD = "No Asbestos Detected" TR = "Trace equals less than 1% of this component"

Uncertainty: For samples containing asbestos in range of 1-10% the CV is 0.43, 11-35% CV = 0.55, >35 CV = 0.23. All results are to be considered preliminary and subject to change unless signed by the Technical Director or Deputy.

Analyst(s): Peera Chaikeenee,

Technical Director Mike Greenberg

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these Laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from us. Sample types, locations, and collection protocols are based upon the information provided by the persons submitting them and, unless collected by personnel of these Laboratories, we expressly disclaim any knowledge and liability for the accuracy and completeness of this information. Residual sample material will be discarded in accordance with the appropriate regulatory guidelines, unless otherwise requested by the client. This report must not be used to claim, and does not imply product certification, approval, or endorsement by NY ELAP, AIHA-LAP, or any agency of the Federal Government. All rights reserved. AMA Analytical Services, Inc.

4475 Forbes Blvd. · Lanham, MD, 20706 · (301) 459-2640

AMA Analytical Services, Inc.
Focused on Results www.amalab.com
AIHA-LAP (#100470) NVLAP (#101143-0) NY ELAP (10920)
4475 Forbes Blvd. • Lanham, MD 20706
(301) 459-2640 • (800) 346-0961 • Fax (301) 459-2643

CHAIN OF CUSTODY

(Please Refer To This Number For Inquires) 6 79426

AMA Client Information:
1. Client Name: EA Engineering, Science, and Technology
2. Address 1: 225 Schilling Cir. Suite 400
3. Address 2: Hunt Valley, MD 21031
4. Billing Email: sdobson@eaest.com
5. Phone #: 410-459-9435

Submittal Information:
1. Job Name: Building 4504
2. Job Location: APG
3. Job #: PO#: 19459
4. Contact Person: Scott Dobson Cell: 410-459-9435
5. Collected by: Mackenzie Smith Cell: 410-402-4365

If a TAT is not provided, AMA will assign a default of 5-Day. **Reports and Invoices provided by Email only.**

AFTER HOURS (must be pre-scheduled)
- ☐ 4 Hours ☐ Late Night
- ☐ Immediate Date Due: ____
- ☐ 24 Hours Time Due: ____
- Comments: ____

NORMAL BUSINESS HOURS
- ☐ 4 Hours ☐ 3 Day
- ☐ Same Day (6-8 Hours) ☒ 5 Day + 4/27 ☐ Results Required By Noon
- ☐ 1 Day Date Due: ____
- ☐ 2 Day

REPORT TO:
- ☒ Email 1: sdobson@eaest.com
- ☒ Email 2: mksmith@eaest.com
- ☐ Email 3: ____

Asbestos Analysis

*PCM Air – Please Indicate Filter Type: ____
- ☐ NIOSH 7400 ____ (QTY)

*TEM Air – Please Indicate Filter Type: ____
- ☐ AHERA ____ (QTY)
- ☐ NIOSH 7402 ____ (QTY)
- ☐ Other (specify ____) ____ (QTY)

PLM Bulk
- ☒ EPA 600 – Visual Estimate 43 (QTY) ☒ Pos Stop
- ☐ EPA Point Count ____ (QTY)
- ☐ NY State Friable 198.1 ____ (QTY)
- ☐ Grav. Reduction ELAP 198.6 ____ (QTY)
- ☐ Other (specify ____) ____ (QTY)

MISC
- ☐ Asbestos Soil PLM ____ (Qual) PLM ____ (Quan) PLM/TEM ____ (Qual) PLM/TEM ____ (Quan)

TEM Bulk
- ☐ ELAP 198.4/Chatfield ____ (QTY)
- ☐ NY State PLM/TEM ____ (QTY)
- ☐ Residual Ash ____ (QTY)
- ☐ Vermiculite ____ (QTY)

TEM Dust*
- ☐ Qual. (pres/abs) Vacuum/Dust ____ (QTY)
- ☐ Quan. (s/area) Vacuum D5755-95 ____ (QTY)
- ☐ Quan. (s/area)Dust D6480-99 ____ (QTY)

TEM Water
- ☐ Qual. (pres/abs) ____ (QTY)
- ☐ ELAP 198.2/EPA 100.2 ____ (QTY)
- ☐ EPA 100.1 ____ (QTY)

☒ All samples received in good condition unless otherwise noted.
(TEM Water samples ____ °C) **(For Lab Use Only)**

Metals Analysis
- ☐ Pb Paint Chip ☐ % by Weight ____ (QTY) ☐ mg/kg ____ (QTY)
- ☐ *Pb Dust Wipe ____ (QTY) (Samples collected using ASTM approved media ☐)
- ☐ *Pb Air ____ (QTY)
- ☐ Pb Soil/Solid ____ (QTY)
- ☐ Pb TCLP ____ (QTY)
- ☐ Drinking Water ☐ Pb ____ (QTY) ☐ Cu ____ (QTY)
- ☐ Waste Water ☐ Pb ____ (QTY) ☐ Cu ____ (QTY)
- ☐ Pb Furnace (Media ____) ____ (QTY)

Fungal Analysis
- ☐ *Spore-Trap ____ (QTY)
- ☐ *Surface Swab ____ (QTY)
- ☐ *Surface Tape ____ (QTY)
- ☐ Other (Specify ____) ____ (QTY)
- ☐ Surface Vacuum Dust ____ (QTY)

Collection Apparatus for Spore Traps/Air Samples: ____

Collection Media ____

If field data sheets are submitted, there is no need to complete bottom section.
*It is recommended that blank samples be submitted with all air and surface samples

SAMPLE INFORMATION

SAMPLE #	MATERIAL and/or LOCATION DESCRIPTION	DATE (m/d/yyyy)	TIME (hh:mm)	VOL (L) (Air Samples)	Wipe Area (Dust Samples)	TEM	PCM	PLM	LEAD	MOLD	COMMENTS/SPECIAL INSTRUCTIONS
See attached sheet		4/21	9:00am					X			

	Print Name	Signature	Date: m/d/yyyy	Time: hh:mm
*Relinquished by:	Mackenzie Smith	[signature]	4/21/26	4:00 pm
Received by:	[signature]	[signature]	4/22	11:45

Delivery Information (For Lab Use Only)
☒ UPS ☒ In-Person ☐ Other
☐ FedEx ☐ Drop Box
☐ USPS ☐ Courier

Sample ID	Description
4504-DW1-A	White drywall located throughout
4504-DW1-B	White drywall located throughout
4504-DW1-C	White drywall located throughout
4504-JC1-A	White joint compound located throughout
4504-JC1-B	White joint compound located throughout
4504-JC1-C	White joint compound located throughout
4504-CT1-A	White ceiling tile located throughout
4504-CT1-B	White ceiling tile located throughout
4504-CT1-C	White ceiling tile located throughout
4504-DM1-A	Grey duct mastic located in kitchen space
4504-FT1-A	Grey 12"x12" floor tile
4504-FM1-A	Black mastic associate with grey tile
4504-FT1-B	Grey 12"x12" floor tile
4504-FM1-B	Black mastic associate with grey tile
4504-FT1-C	Grey 12"x12" floor tile
4504-FM1-C	Black mastic associate with grey tile
4504-FT2-A	Tan 12"x12" floor tile
4504-FM2-A	Black mastic associate with tan tile
4504-FT2-B	Tan 12"x12" floor tile
4504-FM2-B	Black mastic associate with tan tile
4504-FT2-C	Tan 12"x12" floor tile
4504-FM2-C	Black mastic associate with tan tile
4504-CB1-A	Black cove base located throughout
4504-CBM1-A	Yellow mastic asociated with black cove base
4504-CB1-B	Black cove base located throughout
4504-CBM1-B	Yellow mastic asociated with black cove base
4504-CB1-C	Black cove base located throughout
4504-CBM1-C	Yellow mastic asociated with black cove base
4504-DWM1-A	White duct wrap mastic located in telephone room
4504-DWM1-B	White duct wrap mastic located in telephone room
4504-DWM1-C	White duct wrap mastic located in telephone room
4504-PWM1-A	Small white pipe wrap mastic located throughout
4504-PWM1-B	Small white pipe wrap mastic located throughout
4504-PWM1-C	Small white pipe wrap mastic located throughout
4504-PWM2-A	Medium white pipe wrap mastic located throughout
4504-PWM2-B	Medium white pipe wrap mastic located throughout
4504-PWM2-C	Medium white pipe wrap mastic located throughout
4504-RM1-A	Black roof mastic
4504-RM1-B	Black roof mastic
4504-RT1-A	Black roof tar
4504-RT1-B	Black roof tar
4504-RC1-A	Black roof caulk
4504-RC1-B	Black roof caulk

ATTACHMENT IV:

INSPECTOR CERTIFICATIONS

AEROSOL MONITORING & ANALYSIS, INC.

This is to certify that

MACKENZIE SMITH

has met the attendance requirements and successfully completed the course entitled

1-DAY EPA ASBESTOS INSP/MGMT PLANNER REFRESHER

For Accreditation Under TSCA Title II

04/24/2025	04/24/2025	04/24/2026	STEVE SIERACKI
Course Date	***Exam Date***	***Expiration Date***	***Principal Instructor***
VAIMPR04242025-06	VAVAIMPR04242025-06		
Certification No.	***VA Certification No.***		

E. Rush Barnett

Course Director

1331 Ashton Road P.O.Box 646 Hanover, MD 21076 P: 410-684-3327 F: 410-684-3724

www.amatraining.com

Asbestos Accreditation

Mackenzie Smith
Name

Mackenzie Smith
Signature

IMP Review
Course Title

250001175

Exam Date: 05/07/2025
Course Date: 04/24/2025
Exp Date: 04/24/2026

STATE OF MARYLAND

THIS IS TO CERTIFY THAT

Edward Ruben Rodriguez

HAS MET THE LEAD PAINT SERVICES ACCREDITATION REQUIREMENTS FOR

Risk Assessor

START DATE: **05/09/2025** **EXPIRY DATE:** **05/09/2027**

TRAINING PROVIDER: **Aerosol Monitoring & Analysis, Inc.**

COURSE DATE: **05/16/2024**

ACCREDITATION # **10880 RA**

ADMINISTRATOR, LEAD PAINT ACCREDITATION
MARYLAND DEPARTMENT OF THE ENVIRONMENT

05/09/2025
APPROVED DATE

STATE OF MARYLAND

ATTACHMENT V:

XRF SCREENING RESULTS

Attachment V - XRF Screening Results

APG Building 4504

Reading No	Time	Component	Substrate	Side	Condition	Color	Floor	Room	Results	PbC	PbC Error
1	4/21/2026 9:08			CALIBRATE					Positive	0.59	0.00
2	4/21/2026 9:09			CALIBRATE					Positive	1.00	0.30
3	4/21/2026 9:10			CALIBRATE					Positive	1.20	0.50
4	4/21/2026 9:10			CALIBRATE					Negative	0.00	0.02
5	4/21/2026 9:14	WALL	CBLOCK	A	INTACT	BEIGE	FIRST	HALL	Negative	0.01	0.02
6	4/21/2026 9:15	WALL	CBLOCK	B	INTACT	BEIGE	FIRST	HALL	Negative	0.01	0.02
7	4/21/2026 9:16	WALL	CBLOCK	C	INTACT	BEIGE	FIRST	HALL	Negative	0.00	0.02
8	4/21/2026 9:19	WALL	CBLOCK	D	INTACT	BEIGE	FIRST	HALL	Negative	0.00	0.02
9	4/21/2026 9:21	DOOR CASING	METAL	A	INTACT	TAN	FIRST	HALL	Negative	0.00	0.02
10	4/21/2026 9:21	DOOR	METAL	A	INTACT	TAN	FIRST	HALL	Negative	0.00	0.02
11	4/21/2026 9:23	RADIATOR COVER	METAL	D	INTACT	TAN	FIRST	VESTIBULE	Negative	0.00	0.02
12	4/21/2026 9:23	DOOR CASING	METAL	A	INTACT	BROWN	FIRST	VESTIBULE	Negative	0.00	0.02
13	4/21/2026 9:24	DOOR	METAL	A	INTACT	BROWN	FIRST	VESTIBULE	Negative	0.00	0.02
14	4/21/2026 9:25	BEAM	METAL	CEILING	INTACT	RED	FIRST	VESTIBULE	Null	0.00	0.02
15	4/21/2026 9:26	BEAM	METAL	CEILING	INTACT	RED	FIRST	VESTIBULE	Null	0.00	0.02
16	4/21/2026 9:26	BEAM	METAL	CEILING	INTACT	RED	FIRST	VESTIBULE	Null	0.00	0.04
17	4/21/2026 9:26	BEAM	METAL	CEILING	INTACT	RED	FIRST	VESTIBULE	Null	0.01	0.05
18	4/21/2026 9:27	BEAM	METAL	CEILING	INTACT	RED	FIRST	VESTIBULE	Negative	0.00	0.02
19	4/21/2026 9:29	WALL	CERAMIC	C	INTACT	GREY	FIRST	HALL	Null	0.01	0.04
20	4/21/2026 9:29	WALL	CERAMIC	C	INTACT	GREY	FIRST	HALL	Null	0.00	0.04
21	4/21/2026 9:30	WALL	CERAMIC	C	INTACT	GREY	FIRST	HALL	Negative	0.00	0.02
22	4/21/2026 9:31	WALL	CERAMIC	D	INTACT	GREY	FIRST	HALL	Null	0.00	0.02
23	4/21/2026 9:32	WALL	CERAMIC	D	INTACT	GREY	FIRST	HALL	Null	0.00	0.02
24	4/21/2026 9:33	WALL	CERAMIC	D	INTACT	GREY	FIRST	HALL	Negative	0.01	0.02
25	4/21/2026 9:35	WALL	CERAMIC	A	INTACT	BEIGE	FIRST	BATHROOM	Negative	0.00	0.02
26	4/21/2026 9:36	WALL	CERAMIC	B	INTACT	BEIGE	FIRST	BATHROOM	Negative	0.03	0.08
27	4/21/2026 9:38	WALL	CERAMIC	C	INTACT	BEIGE	FIRST	BATHROOM	Negative	0.01	0.02
28	4/21/2026 9:39	WALL	CERAMIC	D	INTACT	BEIGE	FIRST	BATHROOM	Negative	0.00	0.02
29	4/21/2026 9:41	WALL	DRYWALL	A	INTACT	BEIGE	FIRST	BATHROOM	Negative	0.00	0.02
30	4/21/2026 9:41	WALL	DRYWALL	B	INTACT	BEIGE	FIRST	BATHROOM	Null	0.00	0.03
31	4/21/2026 9:42	WALL	DRYWALL	B	INTACT	BEIGE	FIRST	BATHROOM	Negative	0.00	0.02

Attachment V - XRF Screening Results

APG Building 4504

32	4/21/2026 9:43	WALL	DRYWALL	C	INTACT	BEIGE	FIRST	BATHROOM	Null	0.00	0.02
33	4/21/2026 9:45	WALL	DRYWALL	C	INTACT	BEIGE	FIRST	BATHROOM	Negative	0.00	0.02
34	4/21/2026 9:46	WALL	DRYWALL	D	INTACT	BEIGE	FIRST	BATHROOM	Negative	0.00	0.02
35	4/21/2026 9:49	WALL	CBLOCK	A	INTACT	BEIGE	FIRST	STAIR 2	Null	0.00	0.02
36	4/21/2026 9:50	WALL	CBLOCK	A	INTACT	BEIGE	FIRST	STAIR 2	Negative	0.00	0.02
37	4/21/2026 9:52	WALL	CBLOCK	B	INTACT	BEIGE	FIRST	STAIR 2	Negative	0.00	0.02
38	4/21/2026 9:53	WALL	CBLOCK	C	INTACT	BEIGE	FIRST	STAIR 2	Negative	0.00	0.02
39	4/21/2026 9:54	WALL	CBLOCK	D	INTACT	BEIGE	FIRST	STAIR 2	Negative	0.00	0.02
40	4/21/2026 9:55	DOOR CASING	METAL	D	INTACT	TAN	FIRST	STAIR 2	Negative	0.00	0.02
41	4/21/2026 9:56	DOOR	METAL	D	INTACT	TAN	FIRST	STAIR 2	Null	0.00	0.03
42	4/21/2026 9:56	DOOR	METAL	D	INTACT	TAN	FIRST	STAIR 2	Negative	0.00	0.02
43	4/21/2026 9:57	RISER	METAL	D	INTACT	TAN	FIRST	STAIR 2	Negative	0.01	0.05
44	4/21/2026 9:58	CASING	METAL	D	INTACT	TAN	FIRST	STAIR 2	Negative	0.00	0.02
45	4/21/2026 9:59	HANDRAIL	METAL	D	POOR	TAN	FIRST	STAIR 2	Negative	0.01	0.04
46	4/21/2026 10:00	RADIATOR	METAL	C	INTACT	TAN	FIRST	STAIR 2	Negative	0.01	0.05
47	4/21/2026 10:00	PIPE	METAL	A	INTACT	BEIGE	FIRST	STAIR 2	Negative	0.00	0.02
48	4/21/2026 10:04	WALL	CBLOCK	A	INTACT	BEIGE	FIRST	123	Negative	0.00	0.02
49	4/21/2026 10:05	WALL	CBLOCK	B	INTACT	BEIGE	FIRST	123	Null	0.00	0.04
50	4/21/2026 10:06	WALL	CBLOCK	B	INTACT	BEIGE	FIRST	123	Null	0.00	0.02
51	4/21/2026 10:06	WALL	CBLOCK	B	INTACT	BEIGE	FIRST	123	Negative	0.00	0.02
52	4/21/2026 10:07	WALL	CBLOCK	C	INTACT	BEIGE	FIRST	123	Negative	0.00	0.02
53	4/21/2026 10:08	WALL	CBLOCK	D	INTACT	BEIGE	FIRST	123	Negative	0.00	0.04
54	4/21/2026 10:08	CEILING	CONCRETE	UPPER	INTACT	WHITE	FIRST	123	Negative	0.00	0.02
55	4/21/2026 10:09	WINDOW SILL	WOOD	UPPER	INTACT	BEIGE	FIRST	123	Negative	0.00	0.02
56	4/21/2026 10:11	DOOR CASING	METAL	D	INTACT	TAN	FIRST	123	Negative	0.00	0.02
57	4/21/2026 10:11	DOOR	METAL	D	INTACT	TAN	FIRST	123	Negative	0.00	0.02
58	4/21/2026 10:12	WALL	CERAMIC	A	INTACT	BLUE	FIRST	123 BATH	Positive	7.60	6.70
59	4/21/2026 10:13	WALL	CERAMIC	B	INTACT	BLUE	FIRST	123 BATH	Positive	7.20	6.50
60	4/21/2026 10:13	WALL	CERAMIC	C	INTACT	BLUE	FIRST	123 BATH	Positive	9.80	8.10
61	4/21/2026 10:13	WALL	CERAMIC	D	INTACT	BLUE	FIRST	123 BATH	Positive	8.00	6.60
62	4/21/2026 10:14	BATHTUB	CERAMIC	B	INTACT	WHITE	FIRST	123 BATH	Positive	7.00	6.20
63	4/21/2026 10:14	SINK	CERAMIC	B	INTACT	WHITE	FIRST	123 BATH	Positive	7.80	6.50
64	4/21/2026 10:19	TOILET	CERAMIC	D	INTACT	WHITE	FIRST	123 BATH	Negative	0.03	0.15

65	4/21/2026 10:24			CALIBRATE					Positive	1.00	0.30
66	4/21/2026 10:25			CALIBRATE					Positive	1.00	0.30
67	4/21/2026 10:25			CALIBRATE					Negative	0.00	0.02

Key
Positive (LBP)
LCP
Negative
Null Result

ATTACHMENT VI:

PHOTOGRAPHIC LOG

Tan and Grey 12” x 12” floor tile (FT1/FT2) (Non-ACM)

White ceiling tile (CT1) (Non-ACM)

White drywall and joint compound (DW1/JC1) (Non-ACM)

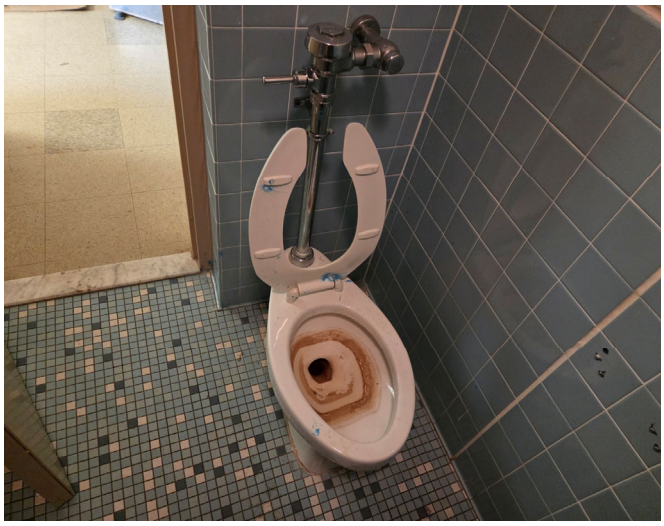
Beige ceramic in bathroom (Lead containing ceramic)

Hallway with ceiling tile and floor tile (All non-ACM)

White duct wrap mastic in telephone room (DWM1) (Non-ACM)

Black roof mastic, tar and caulk (Non-ACM)

Blue ceramic and white bathtub in bathrooms (Lead based ceramic)



Blue ceramic in bathrooms (Lead based ceramic)
White toilet in bathrooms (Lead containing ceramic)

White ceramic sink in bathrooms (Lead based ceramic)