



Air Quality Testing Report

For

**Isabella County Administration Building
200 N. Main Street
Mt. Pleasant, MI 48857**

Prepared for:

**Isabella County
200 N. Main Street
Mt. Pleasant, MI 48857**

Completed by:

**Northern Analytical Services
P.O. Box 1604
Big Rapids, Michigan 49307**

**Project No.: 230145
Report Date: October 19, 2023**

Air Quality Testing
Isabella County
Administration Building
Project No.: 230145
Report Date: October 19, 2023

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Air Quality Testing Report
Isabella County
Administration Building
Project No.: 230145
Report Date: October 19, 2023

Executive Summary

Northern Analytical Services, LLC. (NAS) was retained by Isabella County to perform air quality testing at the Administration Building as a result of a potential asbestos fiber release. Preliminary testing was performed on October 12, 2023 with low levels of asbestos fibers detected (see NAS report dated 10/16/23). Additional testing was performed on October 17, 2023 in an effort to better represent each of the effected spaces.

This second round of testing included air sampling using aggressive sampling methods with transmission electron microscopy (TEM) analysis. Laboratory results are attached to this report and indicate fiber levels were below acceptable levels. The most stringent of the current regulatory air clearance criteria is established by the US EPA under the Asbestos Hazard Emergency Response Act (AHERA) with an average of less than 70 structures per square millimeter (S/mm^2) to be considered as passing.

During this second round of testing, NAS collected a total of 31 samples with an overall average of 1.9 S/mm^2 ; asbestos was only detected on four samples, each with 15 S/mm^2 , the other 27 samples were none-detect.

Based on these results, the building is safe to re-enter with caution. Damaged friable ACM is present in three rooms and above the ceiling tiles. NAS recommends removing the building contents to help facilitate a building wide remediation project to properly address the damaged ACM. The forced air HVAC system is currently off and should not be operated; the ductwork feeds the contaminated rooms and if operated could effect the air quality of the rest of the building.

Test Procedures

Testing was performed using transmission electron microscopy (TEM) methods. Air samples were collected from 10 locations on each level of the building, with at least one sample from each office suite. Air samples were collected by affixing a sampling cassette to a high-volume vacuum pump. Samples were calibrated both pre and post sample collection using a standard high-flow rotameter. TEM samples were delivered via United Parcel Services to SanAir Technologies for analysis.

Air Quality Testing Report
Isabella County
Administration Building
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Sample Results

Laboratory results for each sample collected are attached to this report. The following is a summary of these results:

TEM-Air

Sample Number	Location	Result (S/mm ²)
11	Rm. 125	None Detected
12	Rm. 121	None Detected
13	Rm. 119	None Detected
14	Rm. 116	None Detected
15	Rm. 115	None Detected
16	Rm. 111	None Detected
17	Rm. 109	None Detected
18	Hall 101	None Detected
19	Rm. 103	None Detected
20	Rm. 142	None Detected
21	Rm. 132	None Detected
22	Rm. 201	None Detected
23	Rm. 228	None Detected
24	Rm. 226	15.00
25	Rm. 210	None Detected
26	Rm. 222	None Detected
27	Rm. 313	15.00
28	Rm. 310	None Detected
29	Rm. 319	None Detected
30	Rm. 302	15.00
31	Rm. 303	None Detected
32	Rm. 324	None Detected
33	Rm. 331	None Detected
34	Rm. 334	None Detected
35	Rm. 339	None Detected
36	Rm. 320	None Detected
37	Rm. 301	15.00
38	Rm. 232	None Detected
39	Rm. 220	None Detected
40	Rm. 218	None Detected
41	Rm. 213	None Detected

The US EPA established clearance criteria is less than 70 S/mm²

Conclusion

The test results indicate that low levels of asbestos fibers are present in the air in some locations of the building. In addition, damaged asbestos containing materials are present above the ceiling cavities throughout the building and in rooms 101, 325, and 307.

With the building (excluding rms 101, 307, and 325) meeting/exceeding AHERA clearance criteria, the majority of the building can be re-opened at this time with the following restrictions:

- The three spaces that have been temporarily sealed off (rooms 101, 307, and 325) remain sealed and off limits until each can be professionally cleaned by an accredited asbestos contractor.
- All forced air HVAC systems remain off; these systems were off during testing and have not been cleared for re-use.
- No ceiling tiles are moved; damaged friable ACM has been found above the ceilings on each level and requires cleaning.
- All maintenance and custodial staff receive at least 2 hours of asbestos awareness training.
- Re-occupancy is temporary and primarily to remove the building contents so the damaged ACM can be properly handled.

Appendix A

TEM Results



The Identification Specialists

Analysis Report
prepared for
Northern Analytical Services, LLC

Report Date: 10/19/2023

Project Name: Isabella County

Project #: 230145

SanAir ID#: 23057808



NVLAP LAB CODE 600227-0

11709 Chesterdale Road | Cincinnati, Ohio 45246
888.895.1177 | 513.438.6006 | IAQ@SanAir.com | SanAir.com



SanAir ID Number

23057808

FINAL REPORT

10/19/2023 11:39:11 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 9:40:00 AM

Dear Kevin Delancey,

We at SanAir would like to thank you for the work you recently submitted. The 16 sample(s) were received on Wednesday, October 18, 2023 via UPS. The final report(s) is enclosed for the following sample(s): 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

A handwritten signature in black ink that reads "Maureen Y. Haley".

Maureen Y. Haley
Asbestos Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:

- 16 samples in Good condition.

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Project Number: 230145

P.O. Number:

Project Name: Isabella County

Collected Date: 10/17/2023

Received Date: 10/18/2023 9:40:00 AM

Analyst: Burany, Xianying

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E

Sample	Volume (Liters)	Area Analyzed	Non Asb	Asbestos Type(s)	# Structures ≥ 0.5μ < 5	≥ 5μ	Analytical Sensitivity (S/cc)	Reporting Limits			Asbestos Concentration	
								LCL - UCL (S/cc)	(S/mm ²)	(S/cc)		
23057808-001 11	1200	0.0650 mm ²	0	None Detected			0.0049			<15.00	<0.0049	
Room 125												
23057808-002 12	1200	0.0650 mm ²	0	None Detected			0.0049			<15.00	<0.0049	
Room 121												
23057808-003 13	1200	0.0650 mm ²	0	None Detected			0.0049			<15.00	<0.0049	
Room 119												
23057808-004 14	1200	0.0650 mm ²	0	None Detected			0.0049			<15.00	<0.0049	
Room 116												
23057808-005 15	1200	0.0650 mm ²	0	None Detected			0.0049			<15.00	<0.0049	
Room 115												
23057808-006 16	1200	0.0650 mm ²	0	None Detected			0.0049			<15.00	<0.0049	
Room 111												
23057808-007 17	1200	0.0650 mm ²	0	None Detected			0.0049			<15.00	<0.0049	
Room 109												
23057808-008 18	1200	0.0650 mm ²	0	None Detected			0.0049			<15.00	<0.0049	
Hall 101												
23057808-009 19	1200	0.0650 mm ²	0	None Detected			0.0049			<15.00	<0.0049	
Room 103												

Analyst:



Approved Signatory:



Analysis Date: 10/19/2023

Date: 10/19/2023

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Analyst: Burany, Xianying

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E

Sample	Volume	Area	Non	Asbestos	# Structures		Analytical Sensitivity (S/cc)	Reporting Limits (S/cc)	Asbestos Concentration	
	(Liters)	Analyzed	Asb	Type(s)	$\geq 0.5\mu < 5$	$\geq 5\mu$			(S/mm ²)	(S/cc)
23057808-010 20	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049
Room 142										
23057808-011 21	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049
Room 132										
23057808-012 22	1200	0.0650 mm ²	1	None Detected			0.0049		<15.00	<0.0049
Room 201										
23057808-013 23	1200	0.0650 mm ²	1	None Detected			0.0049		<15.00	<0.0049
Room 228										
23057808-014 24	1200	0.0650 mm ²	0	Chrysotile	1	0	0.0049	0.0001 - 0.0273	15.00	0.0049
Room 226										
23057808-015 25	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049
Room 210										
23057808-016 26	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049
Room 222										

Analyst:



Analysis Date: 10/19/2023

Approved Signatory:



Date: 10/19/2023



SanAir ID Number

23057808

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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-001

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 11

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
d1	f1	NSD										None		
d1	f3	NSD										None		
d1	f5	NSD										None		
d2	c10	NSD										None		
d2	c8	NSD										None		
23057808-001		Total:	0	0	0	Count:	0	0						



SanAir ID Number

23057808

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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-002

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 12

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
d3	c1	NSD										None		
d3	c3	NSD										None		
d3	c5	NSD										None		
d4	e10	NSD										None		
d4	e8	NSD										None		
23057808-002		Total:	0	0	0	Count:	0	0						



SanAir ID Number

23057808

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Project Name: Isabella County
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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-003

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 13

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
d5	a3	NSD										None		
d5	a5	NSD										None		
d5	a7	NSD										None		
e1	d2	NSD										None		
e1	d4	NSD										None		
23057808-003		Total:	0	0	0	Count:	0	0						



SanAir ID Number

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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-004

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 14

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
e2	j2	NSD										None		
e2	j4	NSD										None		
e2	j6	NSD										None		
e3	c1	NSD										None		
e3	f1	NSD										None		
23057808-004			Total:	0	0	0	Count:	0	0					



SanAir ID Number

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Collected Date: 10/17/2023
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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-005

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 15

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
e4	a1	NSD										None		
e4	a3	NSD										None		
e4	a5	NSD										None		
e5	j7	NSD										None		
e5	j9	NSD										None		
23057808-005			Total:	0	0	0	Count:	0	0					



SanAir ID Number

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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-006

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 16

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
a6	j1	NSD										None		
a6	j3	NSD										None		
a6	j5	NSD										None		
a7	e10	NSD										None		
a7	e8	NSD										None		
23057808-006			Total:	0	0	0	Count:	0	0					



SanAir ID Number

23057808

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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-007

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 17

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
a8	c1	NSD										None		
a8	e1	NSD										None		
a8	g1	NSD										None		
a9	a6	NSD										None		
a9	a8	NSD										None		
23057808-007			Total:	0	0	0	Count:	0	0					



SanAir ID Number

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Collected Date: 10/17/2023
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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-008

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 18

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
a10	h1	NSD										None		
a10	h3	NSD										None		
a10	h5	NSD										None		
b6	a5	NSD										None		
b6	a7	NSD										None		
23057808-008			Total:	0	0	0	Count:	0	0					



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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-009

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 19

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
b7	c1	NSD										None		
b7	c3	NSD										None		
b7	c5	NSD										None		
b8	g1	NSD										None		
b8	i1	NSD										None		
23057808-009			Total:	0	0	0	Count:	0	0					



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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-010

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 20

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
b10	i1	NSD										None		
b10	i3	NSD										None		
b9	j2	NSD										None		
b9	j4	NSD										None		
b9	j6	NSD										None		
23057808-010			Total:	0	0	0	Count:	0	0					



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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-011

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 21

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
c6	a1	NSD										None		
c6	a3	NSD										None		
c6	a5	NSD										None		
c7	j10	NSD										None		
c7	j8	NSD										None		
23057808-011			Total:	0	0	0	Count:	0	0					



SanAir ID Number

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Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-012

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 22

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
c8	a3	NSD										None		
c8	a5	NSD										None		
c8	a7	NSD										None		
c9	j10	NSD										None		
c9	j8	1	N			/						Non-Asbestos	0	
23057808-012		Total:	1	0	0	Count:	1	0						



SanAir ID Number

23057808

FINAL REPORT

10/19/2023 11:39:11 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 9:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-013

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 23

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
c10	c1	NSD										None		
c10	c3	1	N			/						Non-Asbestos	0	
c10	c5	NSD										None		
d6	j3	NSD										None		
d6	j5	NSD										None		
23057808-013		Total:	1	0	0	Count:	1	0						



SanAir ID Number

23057808

FINAL REPORT

10/19/2023 11:39:11 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 9:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-014

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 24

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
d7	j5	NSD										None		
d7	j7	NSD										None		
d7	j9	NSD										None		
d8	a1	1		Yes		1		7.5	0	0.1	Bundle	Chrysotile	0	
d8	a3	NSD										None		
23057808-014		Total:	0	1	0	Count:	1	0						



SanAir ID Number

23057808

FINAL REPORT

10/19/2023 11:39:11 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 9:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-015

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 25

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
d10	j5	NSD										None		
d10	j7	NSD										None		
d9	j1	NSD										None		
d9	j3	NSD										None		
d9	j5	NSD										None		
23057808-015			Total:	0	0	0	Count:	0	0					



SanAir ID Number

23057808

FINAL REPORT

10/19/2023 11:39:11 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 9:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057808-016

Grid Box ID: 23025

Grid Orientation

Client Sample ID: 26

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Burany, Xianying

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
e6	a10	NSD										None		
e6	a6	NSD										None		
e6	a8	NSD										None		
e7	a1	NSD										None		
e7	a3	NSD										None		
23057808-016			Total:	0	0	0	Count:	0	0					

Disclaimer

The final report cannot be reproduced, except in full, without written authorization from SanAir. This report is the sole property of the client named on the SanAir Technologies Laboratory chain-of-custody (COC). Results in the report are confidential information intended only for the use by the customer listed on the COC. Neither results nor reports will be discussed with or released to any third party without our client's written permission. The accuracy of the results is dependent upon the client's sampling procedure and information provided to the laboratory by the client. SanAir assumes no responsibility for the sampling procedure and will provide evaluation reports based solely on the samples in the condition they were received at the laboratory and information provided by the client, such as project name, project number, po number, sample collection dates, special instructions, samples collected by, sample numbers, sample identifications/location, sample type, selected analysis type, flow rate, total volume or area, and start stop times that may affect the validity of the results in this report. Samples were received in good condition unless otherwise noted in the report. SanAir assumes no responsibility or liability in the manner in which results are used or interpreted. Clearance test for AHERA samples from abatement projects requires a minimum of five samples inside the work site, five samples outside the work site, and three blanks. This report does not constitute and shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, AIHA LAP,LLC or any other agency of the U.S. government; and may not be certified by every local, state and federal regulatory agency. Clearance test for AHERA samples from abatement projects requires a minimum of five samples inside the work site, five samples outside the work site, and three blanks. Samples are retained for a period of 60 days. Prepared grids are retained for 3 years.

95% Confidence levels listing upper and lower concentration limits are available upon request.

Laboratory Relative Standard Deviation: 0.32

Analyst RSD:

M. Daigneault: 0.23

S. Scales: 0.41

1876 b Alternative Accuracy & Precision: 100%

See www.sanair.com for a full list of and copies of our accreditation certificates and scopes. Not all accreditations may cover the scope of testing performed in this final report.

Asbestos Accreditations, Licenses, or Certificates

NVLAP Lab Code 600227-0

State of Rhode Island Department of Health, Certification Number: PLM00144, TEM00144

State of West Virginia Bureau for Public Health, Analytical Laboratory Number: LT000637



1551 Oakbridge Dr. STE B
Powhatan, VA 23139
804.897.1177 / 888.895.1177
Fax 804.897.0070
sanair.com

Asbestos
Chain of Custody
Form 140, Rev 1, 1/20/2017

SanAir ID Number

23057808

Company:	Northern Analytical Services, LLC		Project #:	230145	Collect by:	Kevin Delancey
Address:	14870 225th Avenue		Project Name:	Isabella County	Phone #:	231-679-0005
City, St., Zip:	Big Rapids, MI 49307		Date Collected:	10-17-23	Fax #:	866-214-4739
State of Collection:	Account#:	2409	P.O. Number:		Email:	kevindelancey@northernas.com, john@northernas.com

Bulk		Air		Soil	
ABB	PLM EPA 600/R-93/116	<input type="checkbox"/>	ABA	PCM NIOSH 7400	<input type="checkbox"/>
	Positive Stop	<input type="checkbox"/>	ABA-2	OSHA w/ TWA*	<input type="checkbox"/>
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>	ABTEM	TEM AHERA	<input checked="" type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count	<input type="checkbox"/>	ABATN	TEM NIOSH 7402	<input type="checkbox"/>
ABBEN	PLM EPA NOB**	<input type="checkbox"/>	ABT2	TEM Level II	<input type="checkbox"/>
ABBCH	TEM Chatfield**	<input type="checkbox"/>	Other:		<input type="checkbox"/>
ABBTM	TEM EPA NOB**	<input type="checkbox"/>	New York ELAP		
ABQ	PLM Qualitative	<input type="checkbox"/>	PLM NY	PLM EPA 600/M4-82-020	<input type="checkbox"/>
** Available on 24-hr. to 5-day TAT			ABEPA2	NY ELAP 198.1	<input type="checkbox"/>
Water			ABENY	NY ELAP 198.6 PLM NOB	<input type="checkbox"/>
ABHE	EPA 100.2	<input type="checkbox"/>	ABBNY	NY ELAP 198.4 TEM NOB	<input type="checkbox"/>

Turn Around Times	3 HR (4 HR TEM) <input checked="" type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	24 HR <input checked="" type="checkbox"/>
	<input type="checkbox"/> 2 Days	<input type="checkbox"/> 3 Days	<input type="checkbox"/> 4 Days	<input type="checkbox"/> 5 Days

Special Instructions	Point count if less than 1%
-----------------------------	-----------------------------

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start – Stop Time*
9	FB	~	~	~	~
9 10	FB	~	~	~	~
9 11	Rock 125	1200L	10/17/23	16.0	9:10 11:10
9 12	Rock 121	~	~	~	~
9 13	Rock 119	~	~	~	~
9 14	Rock 116	~	~	~	~
9 15	Rock 115	~	~	~	~
9 16	Rock 111	~	~	~	~
9 17	Rock 109	~	~	~	~
9 18	Hall 101	~	~	~	~
9 19	Rock 107	~	~	~	~
9 20	Rock 102	~	~	~	~

Relinquished by	Date	Time	Received by	Date	Time
TS	10-17-23	16:00	RMB	OCT 18 2023	9:40am

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or holiday work must be scheduled ahead of time and is charged for rush turnaround time. SanAir covers Standard Overnight FedEx shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

Page 1 of 2

Special Instructions _____

Relinquished by	Date	Time	Received by	Date	Time
			2113	OCT 18 2023	9:40am
)					

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of \$150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges. Page 2 of 2



The Identification Specialists

Analysis Report
prepared for
Northern Analytical Services, LLC

Report Date: 10/19/2023

Project Name: Isabella County

Project #: 230145

SanAir ID#: 23057904



NVLAP LAB CODE 200870-0

10501 Trade Court | North Chesterfield, Virginia 23236
888.895.1177 | 804.897.1177 | fax: 804.897.0070 | IAQ@SanAir.com | SanAir.com



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Dear Josh Christie,

We at SanAir would like to thank you for the work you recently submitted. The 15 sample(s) were received on Wednesday, October 18, 2023 via UPS. The final report(s) is enclosed for the following sample(s): 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

A handwritten signature in black ink that reads "Sandra Sobrino".

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:

- 15 samples in Good condition.

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
 Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145

P.O. Number:

Project Name: Isabella County

Collected Date: 10/17/2023

Received Date: 10/18/2023 10:40:00 AM

Analyst: Hayes, Dillon | Sobrino, Sandra

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E

Sample	Volume	Area	Non	Asbestos	# Structures		Analytical Sensitivity (S/cc)	Reporting Limits		Asbestos Concentration	
	(Liters)	Analyzed	Asb	Type(s)	$\geq 0.5\mu < 5$	$\geq 5\mu$		(S/cc)	(S/mm ²)	(S/cc)	
23057904-001 27	1200	0.0650 mm ²	0	Chrysotile	1	0	0.0049	0.0001 - 0.0273	15.00	0.0049	
Room 313											
23057904-002 28	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049	
Room 310											
23057904-003 29	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049	
Room 319											
23057904-004 30	1200	0.0650 mm ²	0	Chrysotile	0	1	0.0049	0.0001 - 0.0273	15.00	0.0049	
Room 302											
23057904-005 31	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049	
Room 303											
23057904-006 32	1200	0.0650 mm ²	2	None Detected			0.0049		<15.00	<0.0049	
Room 324											
23057904-007 33	1200	0.0650 mm ²	1	None Detected			0.0049		<15.00	<0.0049	
Room 331											
23057904-008 34	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049	
Room 334											
23057904-009 35	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049	
Room 339											

Analyst: 

Approved Signatory: 

Date: 10/19/2023

Analysis Date: 10/19/2023

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
 Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145

P.O. Number:

Project Name: Isabella County

Collected Date: 10/17/2023

Received Date: 10/18/2023 10:40:00 AM

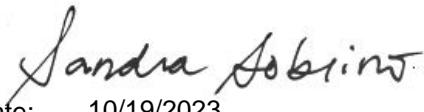
Analyst: Hayes, Dillon | Sobrino, Sandra

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E

Sample	Volume	Area	Non	Asbestos	# Structures		Analytical Sensitivity (S/cc)	Reporting Limits (S/cc)	Asbestos Concentration	
	(Liters)	Analyzed	Asb	Type(s)	$\geq 0.5\mu < 5$	$\geq 5\mu$			(S/mm ²)	(S/cc)
23057904-010 36	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049
Room 320										
23057904-011 37	1200	0.0650 mm ²	1	Chrysotile	0	1	0.0049	0.0001 - 0.0273	15.00	0.0049
Room 301										
23057904-012 38	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049
Room 232										
23057904-013 39	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049
Room 220										
23057904-014 40	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049
Room 218										
23057904-015 41	1200	0.0650 mm ²	0	None Detected			0.0049		<15.00	<0.0049
Room 213										

Analyst: 

Approved Signatory:



Analysis Date: 10/19/2023

Date: 10/19/2023



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-001

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 27

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
b4	f1	1		Yes		/	4.5	0	0.2	Bundle	Chrysotile	2313		
b4	f3	NSD										None		
b4	f5	NSD										None		
b5	b10	NSD										None		
b5	d9	NSD										None		
23057904-001			Total:	0	1	0	Count:	1	0					



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-002

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 28

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
c1	d1	NSD										None		
c1	d3	NSD										None		
c1	d5	NSD										None		
c2	e10	NSD										None		
c2	e7	NSD										None		
23057904-002		Total:	0	0	0	Count:	0	0						



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-003

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 29

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
c3	f1	NSD										None		
c3	f3	NSD										None		
c3	f5	NSD										None		
c4	c1	NSD										None		
c4	c3	NSD										None		
23057904-003			Total:	0	0	0	Count:	0	0					



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-004

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 30

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
c5	d1	1		Yes			0	30.1	0.5	Bundle	Chrysotile	0		
c5	d3	NSD										None		
c5	d5	NSD										None		
d1	h1	NSD										None		
d1	h3	NSD										None		
23057904-004			Total:	0	1	0	Count:	0	1					



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-005

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 31

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
d2	i1	NSD										None		
d2	i3	NSD										None		
d2	i5	NSD										None		
d3	g10	NSD										None		
d3	g8	NSD										None		
23057904-005			Total:	0	0	0	Count:	0	0					



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-006

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 32

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
d4	f1	NSD										None		
d4	f3	NSD										None		
d4	f5	1	N									Non-Asbestos	0	
d5	a10	2	N									Non-Asbestos	0	
d5	a8	NSD										None		
23057904-006			Total:	2	0	0	Count:	0	0					



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-007

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 33

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
e1	e10	NSD										None		
e1	e6	NSD										None		
e1	e8	NSD										None		
e2	i1	NSD										None		
e2	i3	1	N									Non-Asbestos	0	
23057904-007		Total:	1	0	0	Count:	0	0						



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-008

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 34

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
e3	g1	NSD										None		
e3	g3	NSD										None		
e3	g5	NSD										None		
e4	j1	NSD										None		
e4	j3	NSD										None		
23057904-008		Total:	0	0	0	Count:	0	0						



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-009

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 35

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
a6	i1	NSD										None		
a6	i3	NSD										None		
e5	e9	NSD										None		
e5	g10	NSD										None		
e5	g8	NSD										None		
23057904-009			Total:	0	0	0	Count:	0	0					



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-010

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 36

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
a7	h1	NSD										None		
a7	h3	NSD										None		
a7	j2	NSD										None		
a8	a8	NSD										None		
a8	d8	NSD										None		
23057904-010			Total:	0	0	0	Count:	0	0					



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-011

Grid Box ID: 23-280

Grid Orientation

Client Sample ID: 37

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
a10	e2	2		Yes			0	41	0.25	Bundle	Chrysotile	0		
a10	e4	NSD										None		
a9	b10	NSD										None		
a9	b8	NSD										None		
a9	d10	1	N									Non-Asbestos	0	
23057904-011			Total:	1	1	0	Count:	0	1					



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-012

Grid Box ID: 23-281

Grid Orientation

Client Sample ID: 38

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
c5	i10	NSD										None		
c5	i6	NSD										None		
c5	i8	NSD										None		
d1	i1	NSD										None		
d1	i3	NSD										None		
23057904-012		Total:	0	0	0	Count:	0	0						



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-013

Grid Box ID: 23-281

Grid Orientation

Client Sample ID: 39

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
d2	a10	NSD										None		
d2	a6	NSD										None		
d2	a8	NSD										None		
d3	g10	NSD										None		
d3	g8	NSD										None		
23057904-013			Total:	0	0	0	Count:	0	0					



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-014

Grid Box ID: 23-281

Grid Orientation

Client Sample ID: 40

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
c4	b1	NSD										None		
c4	b3	NSD										None		
c4	b5	NSD										None		
c5	i10	NSD										None		
c5	i8	NSD										None		
23057904-014			Total:	0	0	0	Count:	0	0					



SanAir ID Number

23057904

FINAL REPORT

10/19/2023 11:12:58 AM

Name: Northern Analytical Services, LLC
Address: 14870 225th Avenue
Big Rapids, MI 49307
Phone: 231-679-0005

Project Number: 230145
P.O. Number:
Project Name: Isabella County
Collected Date: 10/17/2023
Received Date: 10/18/2023 10:40:00 AM

Asbestos Air TEM AHERA, 40 CFR Part 763 Subpart E Worksheet

SanAir Sample ID: 23057904-015

Grid Box ID: 23-281

Grid Orientation

Client Sample ID: 41

G.O.A.: 0.013 mm sq.

F

Instrument ID: Hitachi TEM Scope #1

No. G.O. Analyzed: 5

Magnification: 20 K

Analyst: Hayes, Dillon

AV: 100Kv

Date: 10/19/2023

Grid ID	G.O. ID	Structure Number	ED Observation			Sketch	Length			Width	Structure Type	EDX Fiber Type	SAED Film ID	QC
			Non Asbestos	Chrysotile	Amphibole		≥ 0.5um	< 5um	≥ 5um					
e1	b2	NSD										None		
e1	b4	NSD										None		
e1	b6	NSD										None		
e2	i1	NSD										None		
e2	i3	NSD										None		
23057904-015			Total:	0	0	0	Count:	0	0					

Disclaimer

U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods – Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found 40 CFR, Part 763, Subpart E, Appendix A.

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95% confidence levels are reported using the upper and lower concentrations limits.

Laboratory Relative Standard Deviation: 0.2
Analyst RSD: J. Tallert 0.2, S. Sobrino 0.2, D. Hayes 0.3

1876 b Alternative Accuracy and Precision

J. Tallert: 100%
S. Sobrino: 100%
D. Hayes: 100%

Asbestos Accreditations

National Voluntary Laboratory Accreditation Program (NVLAP) Lab Code 200870-0
City of Philadelphia Department of Public Health Air Management Services, Certification#ALL-460
Commonwealth of Pennsylvania Department of Environmental Protection Number 68-05397
California State Environmental Laboratory Accreditation Program Certificate Number 2915
Colorado Department of Public Health and Environment Registration Number AL-23143
Connecticut Department of Public Health Environmental Laboratory Registration Number PH-0105
Massachusetts Department of Labor Standards Asbestos Analytical Services License Number:
AA000222 State of Maine Department of Environmental Protection License Number: LB-0075, LA-0084
New York State Department of Health Laboratory ID: 11983
State of Rhode Island Department of Health Certification No.: PCM00126, PLM00126, TEM00126 Texas
Department of State Health Services License Number: 300440
Commonwealth of Virginia Department of Professional and Occupational Regulation Number:
3333000323
State of Washington Department of Ecology Laboratory ID: C989
State of West Virginia Bureau for Public Health Analytical Laboratory Number: LT000616
Vermont Department of Health License Number: Asb-Co-An-000006
Louisiana Department of Environmental Quality AI Number 212253, Certificate #05088



10501 Trade Ct., Suite 100
 N. Chesterfield, VA 23236
 804.897.1177 / 888.895.1177
 Fax 804.897.0070
sanair.com

**Asbestos
 Chain of Custody**
 Form 140, Rev 6, 1/26/2022

SanAir ID Number

73057909

Company: Northern Analytical Services, LLC	Project #: 230145	Collected by: Joshua Christie
Address: 14870 225th Ave.	Project Name: Isabella Creek	Phone #: (231) 679-0005
City, St., Zip: Big Rapids, MI, 49307	Date Collected: 10-17-23	Fax #: 866-214-4739
State of Collection: MI	Account #: 2409	Email: kevindlancey@northernas.com / john@northernas.com

Bulk

ABB	PLM EPA 600/R-93/116	<input type="checkbox"/>
	Positive Stop	<input type="checkbox"/>
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count	<input type="checkbox"/>
ABBEN	PLM EPA NOB**	<input type="checkbox"/>
ABBCH	TEM Chatfield**	<input type="checkbox"/>
ABBTM	TEM EPA NOB**	<input type="checkbox"/>
ABQ	PLM Qualitative	<input type="checkbox"/>

** Available on 24-hr. to 5-day TAT

Water

ABHE	EPA 100.2	<input type="checkbox"/>
------	-----------	--------------------------

Air

ABA	PCM NIOSH 7400	<input type="checkbox"/>
ABA-2	OSHA w/ TWA*	<input type="checkbox"/>
ABTEM	TEM AHERA	<input checked="" type="checkbox"/>
ABATN	TEM NIOSH 7402	<input type="checkbox"/>
ABT2	TEM Level II	<input type="checkbox"/>
Other:		<input type="checkbox"/>

New York ELAP

ABEPA2	NY ELAP 198.1	<input type="checkbox"/>
ABENY	NY ELAP 198.6 PLM NOB	<input type="checkbox"/>
ABBNY	NY ELAP 198.4 TEM NOB	<input type="checkbox"/>

Soil

ABSE	PLM EPA 600/R-93/116 (Qual.)	<input type="checkbox"/>
Soil		
ABSP	PLM CARB 435 (LOD <1%)	<input type="checkbox"/>
ABSP1	PLM CARB 435 (LOD 0.25%)	<input type="checkbox"/>
ABSP2	PLM CARB 435 (LOD 0.1%)	<input type="checkbox"/>

Dust

ABWA	TEM Wipe ASTM D-6480	<input type="checkbox"/>
ABDMV	TEM Microvac ASTM D-5755	<input type="checkbox"/>

Matrix

		<input type="checkbox"/>
--	--	--------------------------

Other

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	1 Day <input checked="" type="checkbox"/>
	<input type="checkbox"/> 2 Days	<input type="checkbox"/> 3 Days	<input type="checkbox"/> 4 Days	<input type="checkbox"/> 5 Days

Special Instructions	Point Count If < 1%
-----------------------------	---------------------

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start – Stop Time*
27	Room 313	1200L	10-17-23	10.0	12:00 14:00
28	Room 310				
29	Room 319				
30	Room 302				
31	Room 303				
32	Room 324				
33	Room 331				
34	Room 334				
35	Room 339				
36	Room 310				
37	Room 301				
38	Room 232	1200L	10-17-23	10.0	12:35 14:35

Relinquished by	Date	Time	Received by	Date	Time
Joshua Christie	10-17-23	16:00	112m	10/18/23	10:40 am

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of \$150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

23057904

Special Instructions _____

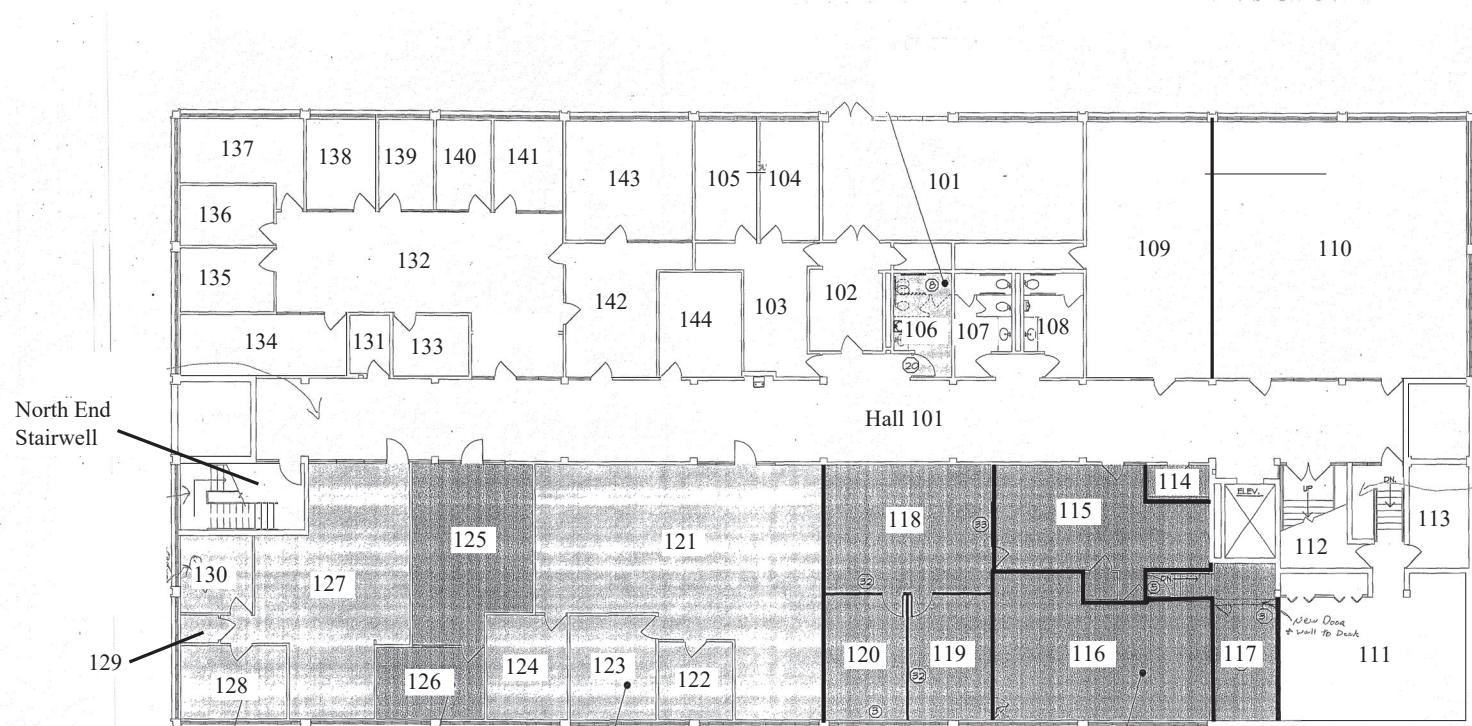
Relinquished by	Date	Time	Received by	Date	Time
			IRM	10/18/23	10:40 a

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or holiday work must be scheduled ahead of time and is charged for rush turnaround time. SanAir covers Standard Overnight FedEx shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

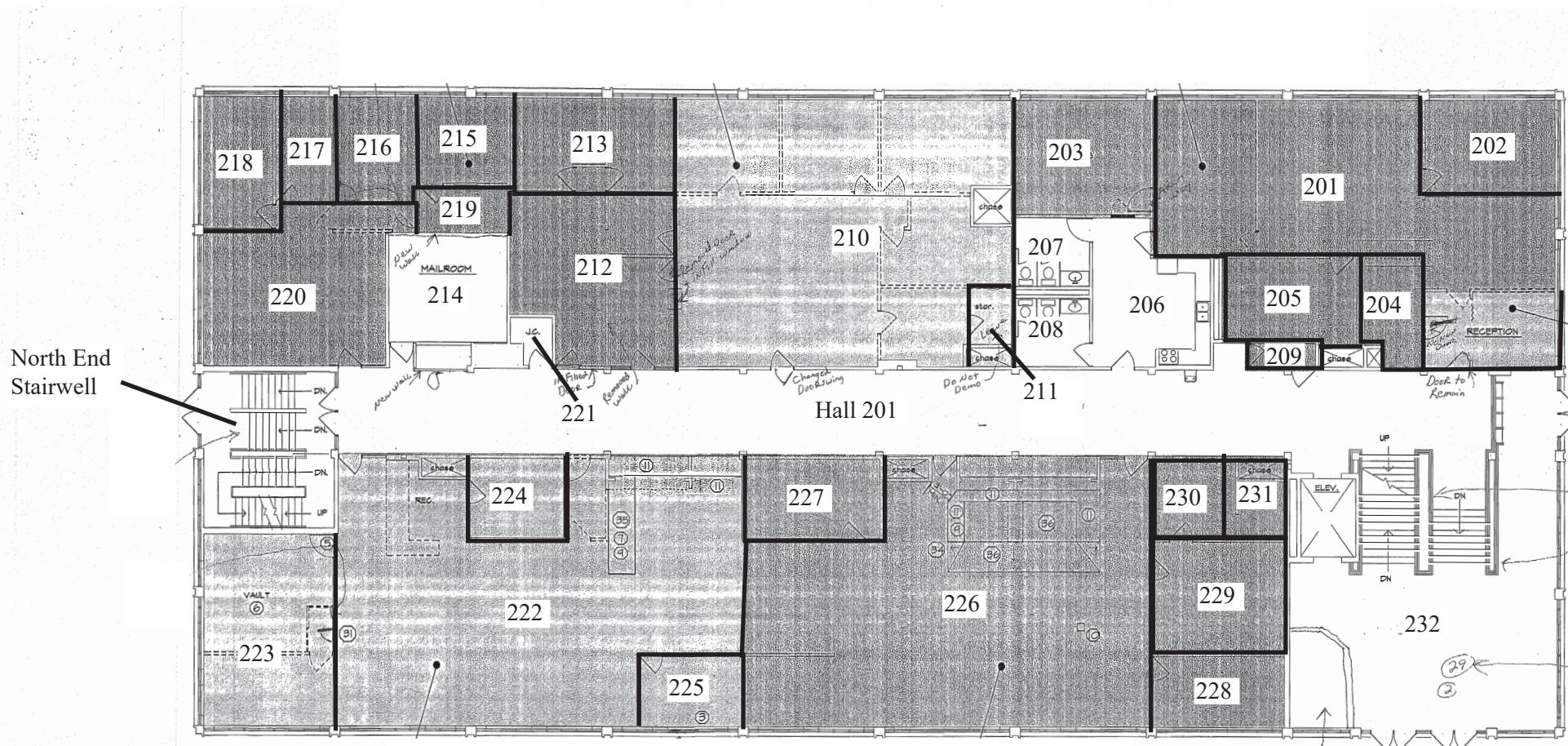
Page 2 of 2

Appendix B

Floor Plan

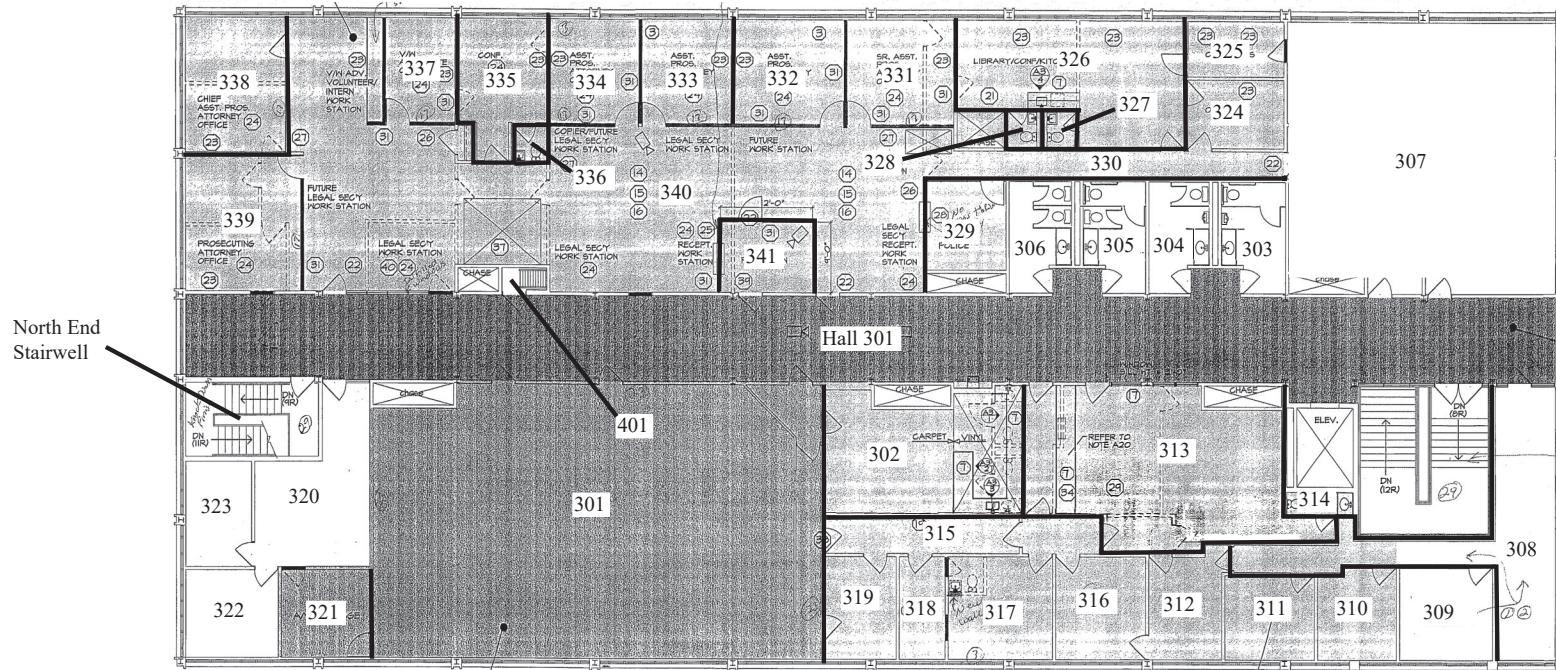


Isabella County Administration Building



BUILDING USE MASTER PLAN
SECOND LEVEL FLOOR PLAN

Isabella County Administration Building



 **BUILDING USE MASTER PLAN**
THIRD LEVEL FLOOR PLAN
 SCALE: $1/8'' = 1'-0''$

Isabella County Administration Building