NORTECH

SUSTAINABLE ENVIRONMENT, ENERGY,
HEALTH & SAFETY PROFESSIONAL SERVICES

***NORTECH*, Inc.**

♦

Accounting Office:
2400 College Rd
Fairbanks, AK 99709
907.452.5688
907.452.5694 Fax

♦

3105 Lakeshore Drive
Suite A106
Anchorage, AK 99517
907.222.2445
907.222.0915 Fax

♦

5438 Shaune Drive
Suite B
Juneau, AK 99801
907.586.6813
907.586.6819 Fax

♦

www.nortechengr.com

December 15, 2021

Sent via email to:
cfell@rmconsult.com

R&M Consultants, Inc.
9101 Vanguard Dr
Anchorage, AK 99507

Attn: Chris Fell

RE: Kodiak Airport Buildings Limited Hazardous Materials Assessment Report

Dear Mr. Fell:

NORTECH is pleased to provide R&M Consultants with the following limited Hazardous Materials Assessment (HMA) Report for buildings located at Lot 5A and Lot 3 of the 1400 Block at the Kodiak Airport. This report documents ***NORTECH***'s methods, sample locations and materials, assessment results, and demolition considerations for both buildings within the proposed project scope.

Background

The Alaska Department of Transportation and Public Facilities (ADOT&PF) has plans to demo two buildings located on Lot 5A and Lot 3 of Block 1400 at the Kodiak Airport. Prior to the planned demolition, a limited Hazardous Materials Assessment (HMA) of the building was conducted to identify potential hazardous materials including asbestos containing materials (ACM), lead-based paint (LBP), mercury containing materials, Polychlorinated Biphenyls (PCB) containing materials, radioactive materials, and other universal wastes that may require special considerations for disposal or handling.

Objectives and Scope of Work

ADOT&PF retained R&M Consultants Inc. (R&M) under request for proposal #18 to provide a limited HMA, environmental assessment, prepare a workplan, construction documents and provide construction administration services for buildings located at the Sitka, Kodiak, and Cold Bay Airports. R&M retained ***NORTECH*** to provide independent third-party professional services to conduct a limited HMA of the two buildings located at the Kodiak Airport.

The objective of this report is to provide information about hazardous materials and demolition conditions that will be encountered and may require abatement and/or special handling during building demolitions on both properties. The information in this report is intended to be developed into demolition design documents to obtain bids for demolition. These will require specific abatement, and/or hazardous materials management plan(s) for the project that shall be governed by the specific project scope of work and the contractor's Occupational Safety and Health Administration (OSHA) compliant Work Plan describing the methods and means for the specific project.

NORTECH's scope of work for the HMA included the following:

- Conduct a Limited HMA of buildings located on Lots 5A and 3 of the 1400 block of the Kodiak Airport
    - Assessment of identified areas for asbestos-containing materials (ACM)
    - Identify other hazardous materials present within the assessed area
        - LBP
        - Mercury containing materials
        - PCB containing materials
        - Radioactive materials
        - Universal wastes
- Prepare this Limited HMA report
    - Include sample results, locations, and final laboratory reports
    - Recommendations for renovation and disposal activities

Limitations

Lot 3

The intent of this report is to provide data to inform contractors of hazardous building materials that may be encountered and require abatement and/or special handling during renovation and site improvement activities. Due to concerns about the structural integrity of the roofs on all assessed buildings, ***NORTECH*** did not climb onto the roofs to conduct extensive sampling or visual assessment of potential hazardous roofing materials. Non-sampled roofing materials should be considered potential ACM unless later laboratory testing indicates otherwise.

A motor home and semi-truck trailer were present on Lot 3, but were not assessed for potential hazardous materials as ***NORTECH*** could not gain access to their interiors. Additional hazardous materials not discussed in this report may be present in both the motor home and trailer. A total of 46 abandoned vehicles were also observed on the property. ***NORTECH*** did not inspect any of the vehicles for potential hazardous materials, but for disposal purposes, it should be assumed all vehicles (including the motor home) contain lead-acid batteries and fluids (coolants, lubricants, and fuel).

NORTECH observed a floor drain located within the garage portion of the building on Lot 3. It is not clear where the floor drain outlet is located and tracing the floor drain below the concrete pad was outside the scope of work for this project. If the concrete pad the building is located on is demoed during project activities, the floor drain outlet should be assessed at that time.

Lot 5A

Due to concerns about the structural integrity of the roofs on all assessed buildings, ***NORTECH*** did not climb onto the roofs to conduct extensive sampling or visual assessment of potential hazardous roofing materials. Roofing samples were collected from the corner of the roof on the Lot 5A building, but was limited to what could be reached while on the available ladder. Non-sampled roofing materials should be considered potential ACM unless later laboratory testing indicates otherwise.

Methodology

Project efforts were completed in accordance with ***NORTECH*** Hazardous Material Standardized Methods (v19). Project work was performed by an experienced Health and Safety Professional with current Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA) Building Inspector certification utilizing industrial hygiene inspection practices dedicated to the anticipation, recognition, evaluation and control of those materials within workplaces. Work was reviewed and signed off by a registered Professional Engineer.

Suspected asbestos samples were sent to International Asbestos Testing Laboratories (iATL) in Mt. Laurel, New Jersey, a laboratory certified through the National Voluntary Laboratory Accreditation Program. The samples were analyzed by Phase Light Microscopy (PLM) using the EPA 600/R-93/116 Method or PLM-NOB. Based on the PLM results, selected materials were analyzed using the PLM point count method to more accurately determine the asbestos content.

Quantification of lead-in-paint was performed according to NIOSH 7702, using a Thermo Fisher NITON XLp-303A x-ray fluorescence instrument (XRF), providing EPA accepted real-time, on-site sample results.

Field Activities

NORTECH personnel Ty Hughes (AHERA Cert # TBI4-321-15147) arrived at the Site on November 8, 2021 and conducted the limited HMA November 8-9, 2021. ADOT personnel Hannah Seaman assisted with Site access. ***NORTECH*** conducted an assessment of the interior and exterior of the buildings on Lot 3 and Lot 5A of Block 1400 at the Kodiak airport. Both buildings were wood frame construction with concrete floors, walls that had plywood and/or gypsum wall board, and gypsum wall board ceilings.

Lot 5's roof was metal sheeting on top of felt and plywood and Lot 3's was made with roof shingles and tarpaper on top of plywood. A complete visual assessment of the roofs of the buildings was not completed due to safety concerns about the structural integrity of the buildings.

Lot 3 and 5A had above ground fuel storage tanks (ASTs) on their properties. Lot 5 has a single 500-gal AST that is along the north side of the building that is empty and disconnected. Lot 3 has two ASTs on the property. The first is a 500-gal tank located off the south side of the building and could not be assessed as it was encased in a concrete housing that prevented visual inspection of most of the AST. The second tank on Lot 3 was located behind the building on the east side.

Asbestos

NORTECH collected a total of 13 samples of suspected ACM from buildings located on Lot 3 and nine samples from buildings located on Lot 5A. Asbestos sample locations are shown in Figures 2-3, Appendix 1.

Lead-Based Paint

NORTECH analyzed 9 locations on painted surfaces for LBP throughout the building on Lot 3 and 16 locations from the buildings on Lot 5A. Painted walls, doors, cabinets and painted portions of concrete were assessed for the presence of LBP. Lead-based paint sample locations are shown in Figures 2-3, Appendix 1.

Polychlorinated Biphenyls (PCBs)

PCB investigation was limited to the assessment of fluorescent lighting ballasts. Lighting fixtures were spot-checked for markings indicating PCB containing components. Spot checks of two accessible florescent ballasts on Lot 3 did not reveal "No PCBs" statements on the ballasts. Spot checks of three ballasts on Lot 5A revealed two ballasts had "No PCBs" statements. A PCB statement was not observed on the third ballast.

Other Items Requiring Special Handling
In addition to the ACM assessment, ***NORTECH*** visually inspected for miscellaneous hazardous materials that may potentially be disturbed during the project scope. Other hazardous materials not discussed above were identified within the buildings, but were either not in an area that may be impacted by the current scope of work or could be moved if affected by said activities (such as fire extinguishers and lead-acid batteries).

Results and Discussion
The following is a discussion of sample results with analysis by hazardous material type. A copy of the laboratory report is also included as Appendix 3.

Asbestos
ACM is typically categorized into three categories: Friable, Category I Non-friable, and Category II Non-friable. These categories are based on the potential of the material to release fibers into the air and create a potential exposure risk. Friable material can be reduced to powder or dust with hand pressure, while non-friable material cannot be crushed with hand pressure. Non-friable material may also become friable under some conditions. Asbestos results are discussed and analyzed below by category. Figures 2-3 in Appendix 1 show the location of samples submitted for asbestos analysis.

Materials that contain greater than 1% asbestos are considered regulated ACM and require special handling during demolition or removal of materials. Of the materials sampled for analysis of ACM, none contained concentrations of asbestos above the regulatory limit of 1%. All submitted samples were non-detect for the presence of asbestos.

Lead
The XRF instrument provided real-time lead analysis measurements of painted surfaces on and within the project area. Although not directly applicable to this renovation project, the HUD LBP threshold for XRF analysis is 1 mg/cm^2. Sample locations and results are presented in Appendix 1. Painted surfaces tested within the project area had XRF LBP concentrations of 0.0 mg/cm^2 to 0.6 mg/cm^2. The paint is not considered lead-based paint and no special requirements are associated with the painted building materials.

Other Items Requiring Special Handling
NORTECH inspected standard building-related fixtures, such as lighting and thermostats. Fluorescent bulb counts are approximate for Lot 3 as part of the ceiling had collapsed and broken bulbs were observed on the floor. Lead-acid battery counts for Lot 3 are also approximate as they do not include batteries that may be within the abandoned vehicles on the lot. The following potentially hazardous items were observed at the facility during the field inspections are:

- Lot 3
    - Mercury-containing fluorescent bulbs — 30 each
    - Potential PCB Containing fluorescent Ballasts — 15 each
    - Fire Extinguishers — 8 each
    - Lead-acid batteries — 6 each
    - Miscellaneous chemicals, lubricants, fuel containers — not counted
    - Abandoned vehicles — 46 each
    - Motorhome — 1 each
- Lot 5A

- Mercury-containing fluorescent bulbs 14 each
- Potential PCB Containing fluorescent Ballasts 7 each
- Fire Extinguishers 1 each
- Lead-acid batteries 13 each
- Portable propane tanks 3 each
- Miscellaneous chemicals, lubricants, fuel containers not counted

If fluorescent light ballasts are removed as part of demolition activities and not reused in other buildings, each ballast should be inspected for stickers or wording that indicate the ballast is PCB free. If such documentation cannot be found, the fluorescent ballast should be assumed to contain PCBs and be disposed of in accordance with local, State, and Federal regulations. A spot check of one of the ballasts showed "No PCB" wording on two of the three ballasts inspected on Lot 5A (Photo 15, Appendix 2), but no "No PCBs" wording was observed on ballasts spot checked on Lot 3 (Photo 16, Appendix 2). If fluorescent lights and ballasts are in good condition, they can be removed and re-used in ballasts not affected by the project. If bulbs are not re-used, they should be disposed of in accordance with local, State, and Federal regulations.

Fire Extinguishers can also be re-used in locations not affected by the project if they remain in good working condition. Otherwise, they should be disposed of in accordance with local, State, and Federal regulations.

NORTECH observed numerous chemicals, lubricants, and coolants associated with the repair and maintenance of vehicles on both Lot 3 and Lot 5A (Photos 12-13, Appendix 2). A total of 19 lead-acid batteries were also observed throughout the two lots (Photos 3,11, Appendix 2). Chemicals, lubricants, coolants, and batteries located on the two lots should be collected and disposed of in accordance with local, State, and Federal regulations. Once batteries have been removed from both lots, a visual inspection of soils in areas where batteries were stored outside should occur. If indications of soil staining from leaking batteries is observed, further investigation and laboratory testing of the soils may be needed.

A total of 46 abandoned vehicles, 1 motorhome (Photo 6, Appendix 2), and various outboard boat motors (Photo 4, Appendix 2) were also found on Lot 3. The vehicles and motorhome may contain lead-acid batteries. In addition, the vehicles, motorhome, and outboard motors should also be assumed to contain fuel, lubricants, and coolants that should be disposed of in accordance with local, State, and Federal regulations. Once the vehicles, motorhome, and outboard motors have been removed from Lot 3, a visual assessment of the ground surface should be conducted to determine if fluids or batteries contained within the engines and motors have leaked and potentially impacted Site soils. If indications of soil staining from fluids or batteries are observed, further investigation and laboratory testing of soils may be needed.

Three 500-gallon fuel tanks were observed between the two lots. One 500-gallon AST was labeled as containing diesel (Photo 14, Appendix 2) and located on Lot 5A. Two ASTs were located on Lot 3. Based on the dispenser observed on one of the 500-gallon ASTs on Lot 3 (Photo 2, Appendix 2) and the number of abandoned vehicles present on that lot, it is likely the AST with the dispensing pump may have contained gasoline. All observed tanks were in poor condition and should not be reused. All ASTs on Lot 3 and Lot 5A should be disconnected from any remaining piping, pumped of any residual fuel they may contain, and properly disposed of according to local, State, and Federal regulations.

Once the tanks have been removed, a visual inspection of soils around the tanks should occur. If visual or olfactory cues indicate the possibility of soil contamination, further investigations and laboratory testing of soils may be needed.

NORTECH observed a floor drain within the garage section of the building located on Lot 3 (Photos 7-8, Appendix 2). Standing fluid was observed in the drain and ***NORTECH*** noted the fluid appeared to be oily and may contain petroleum products. It is not known if the floor drain is connected to an oil/water separator, municipal sewer, or if it discharges to the ground. The outlet for the floor drain should be investigated once the building on Lot 3 has been demoed and if the concrete pad is also removed. If visual or olfactory cues indicate that soils under or around the floor drain may have been impacted by petroleum or other contaminants, further investigation and laboratory testing of soils may be needed.

Conclusions and Recommendations
Based on the observations and findings of this hazardous materials assessment, the following conclusions and recommendations have been developed for the project:

Asbestos Containing Material

- No asbestos containing materials were identified during the limited HMA
- These findings should be incorporated into design and renovation documents

Lead-Based Paint

- No lead-based paint was identified during the limited HMA
- These findings should be incorporated into design and renovation documents

Other Hazardous Materials

- Potentially hazardous materials identified included:
    - Mercury-containing fluorescent light tubes
    - Potential PCB containing fluorescent ballasts
        - Each ballast should be inspected if it is affected by the planned demolition
        - If affected by renovations, all PCB containing ballasts should be removed prior to demolition and disposed of properly
    - Fire extinguishers
        - If in good condition, fire extinguishers can be reused in other buildings
        - If not reused, dispose of properly prior to demolition
    - Misc. chemicals, lubricants, and coolants
        - Removed prior to demolition and disposed of properly
    - Lead-acid batteries
        - Removed prior to demolition and disposed of properly
        - Inspect soils under batteries stored outside for signs of contamination from leaking batteries
        - Further investigation may be needed if signs of contamination are observed
    - Abandoned vehicles, motorhome, outboard motors
        - Removed prior to demolition and disposed of properly
        - Once removed, inspect soils for evidence of contamination
        - Further investigation may be needed if signs of contamination are observed
    - Fuel Storage Tanks

- Remove prior to demolition and dispose of properly
- Once removed, inspect soils for evidence of contamination
- Further investigation may be needed if signs of contamination are observed

- Floor drain
  - After demolition, inspect soils around the floor drain for signs of contamination
  - Further investigation may be needed if signs of contamination are observed

This limited HMA was conducted to identify potential ACM, LBP, other hazards, and associated regulatory constraints involved with management, abatement, and disposal of materials identified during the anticipated demolition of buildings on Lots 3 and 5A of the Kodiak Airport. Specific abatement work practices may require additional sampling to comply with the Occupational Safety and Health Administration worker exposure regulatory guidelines. ***NORTECH*** recommends the findings of this limited HMA be incorporated into the design documents.

All information about hazardous materials associated with this project should be made available to employees, contractors, and abatement/demolition contractors associated with this project. This hazardous materials assessment report is intended for informational purposes only. A project-specific demolition work plan should be developed for all planned abatement and demolition activities associated with demolition of the buildings on Lots 3 and 5A of the Kodiak Airport. This work plan should identify salvageable items (such as fluorescent light ballasts and bulbs), address hazardous material to be handled and disposed of, address all non-hazardous waste streams, and identify work practices methods and means. The work plan should also provide qualifications and certifications of all workers and identify all disposal facilities that will receive wastes from the project.

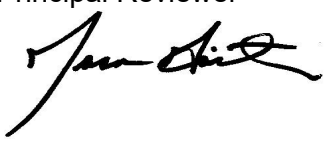
We trust this information is adequate for your needs at this time. If you have any questions or require additional information, please contact ***NORTECH*** at your convenience.

Sincerely,
NORTECH

Primary Author Signature

Jennifer Stoutamore
Staff Professional
AHERA Building Inspector
Cert # T-28407-39726

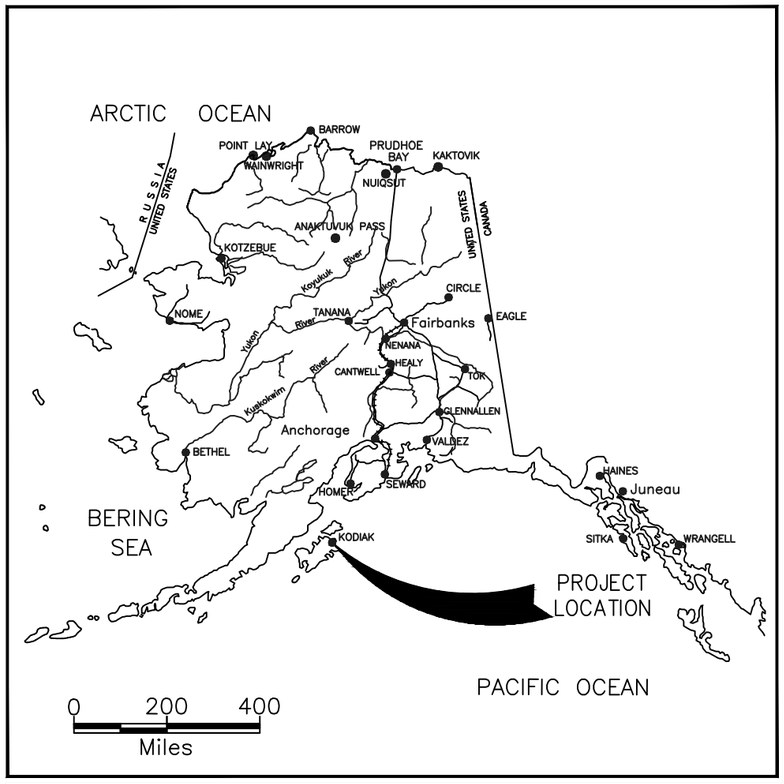
Principal Reviewer

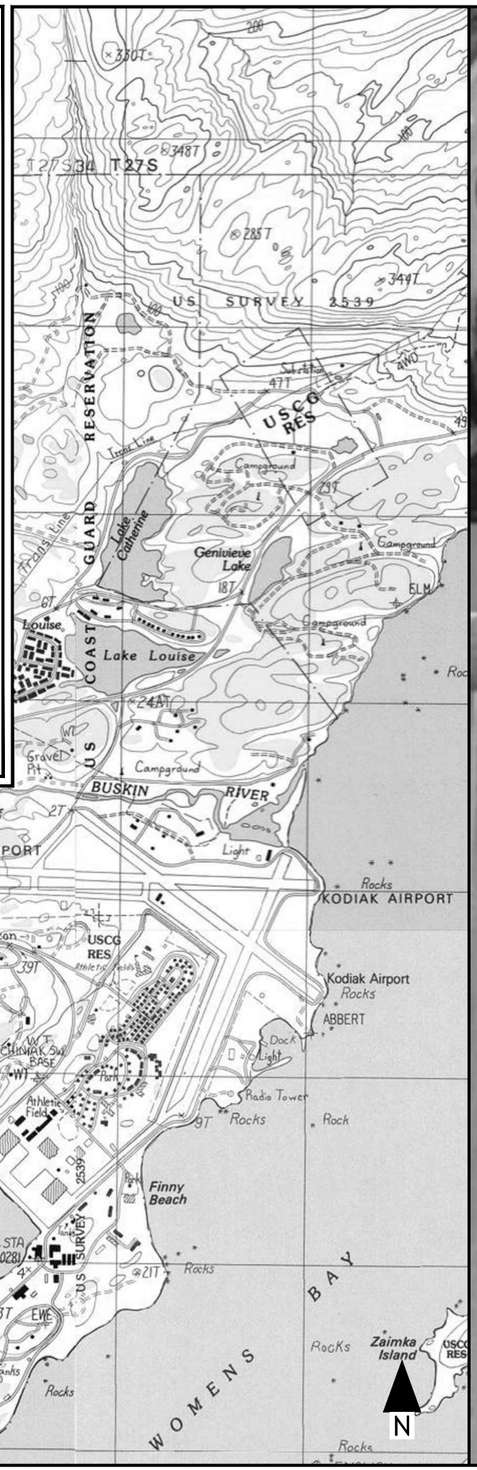


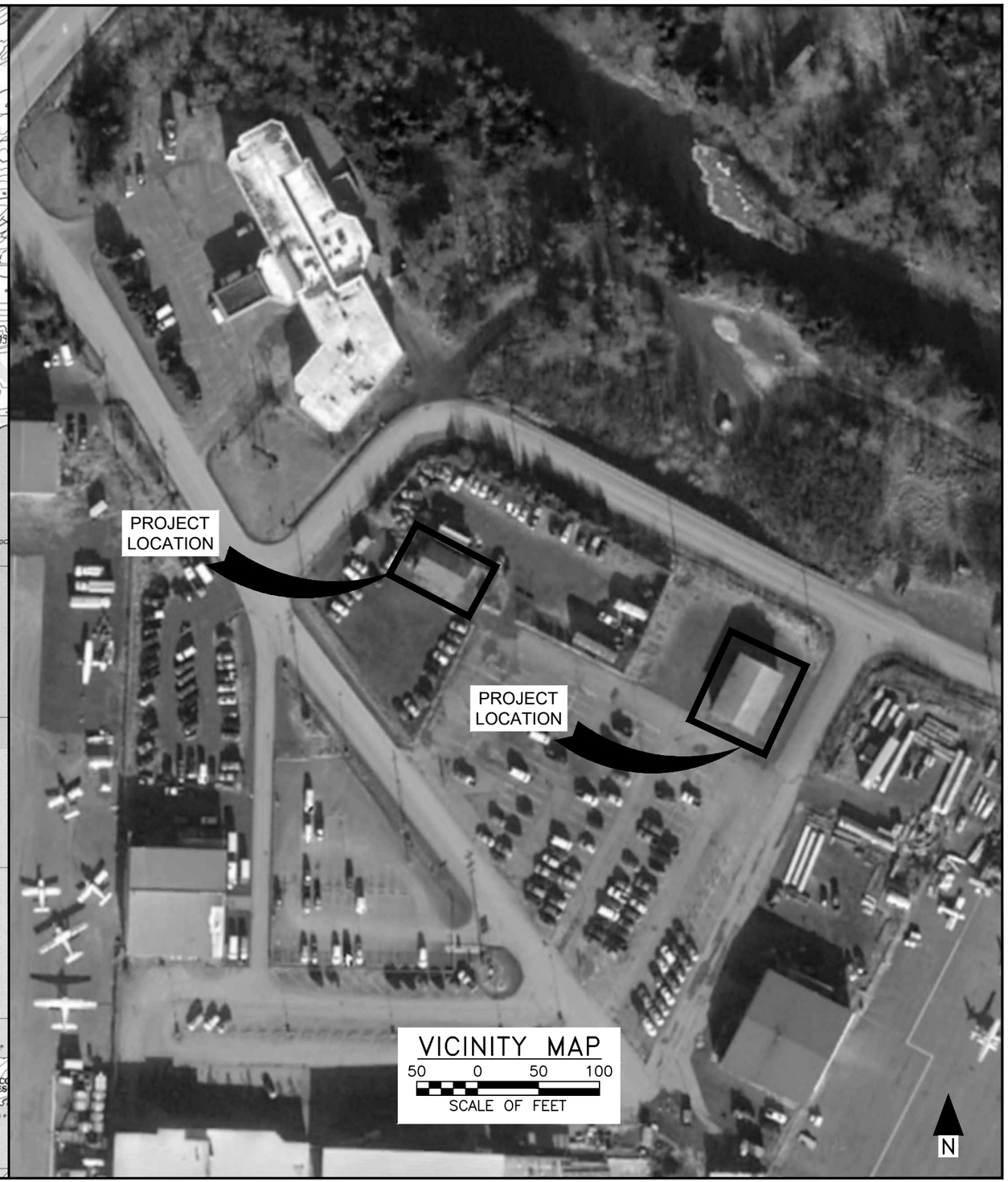
Jason Ginter, PMP
Principal, Juneau Technical Manager

Appendix: 1) Figures
2) Photos
3) Laboratory Report
4) ***NORTECH*** Standard Methods

Appendix 1
Figures





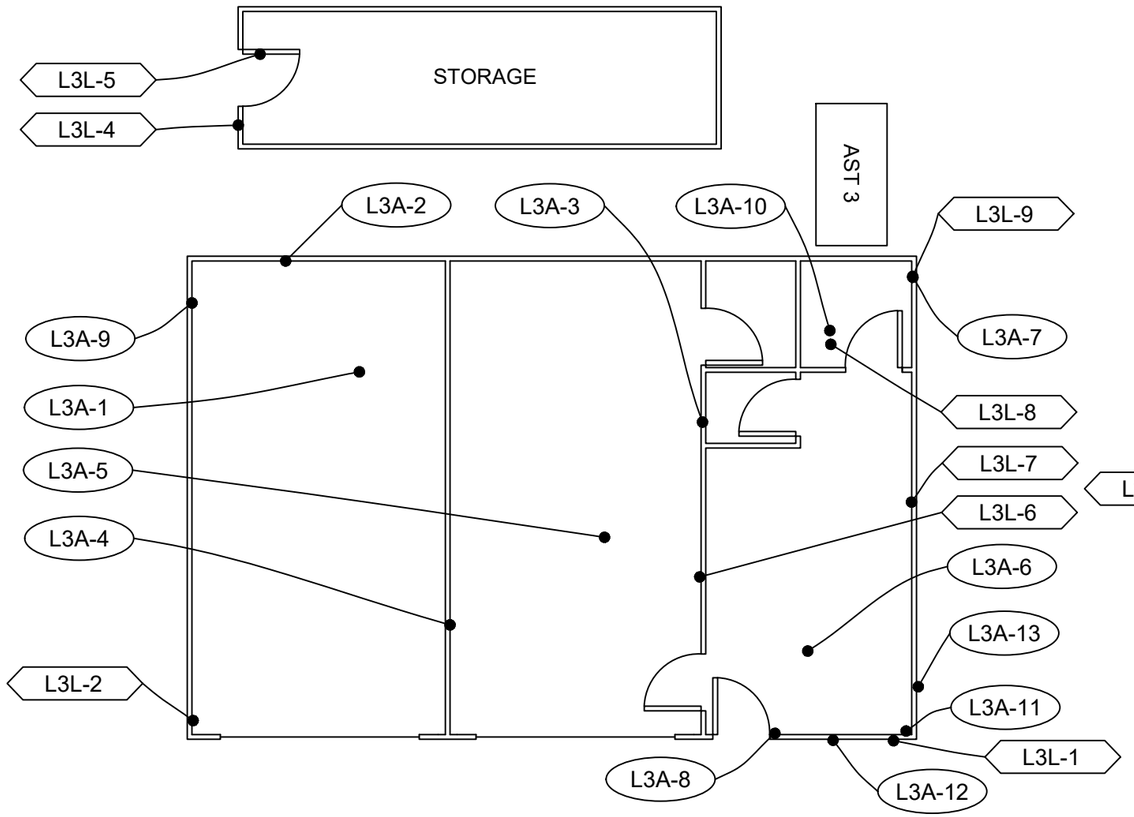


NORTECH
ENVIRONMENT, ENERGY, HEALTH & SAFETY CONSULTANTS
2400 College Road, Fairbanks, AK. 99709, 907-452-5688
3105 Lakeshore Dr., Anchorage, AK. 99517 907-222-2445
5438 Shaune Dr., Juneau, AK. 99801 907-586-6813

Location and Vicinity Map
Kodiak Airport Building Hazardous Materials Assessment
Kodiak, Alaska

DATE: 12/15/2021	SCALE: AS SHOWN
PROJ MGR: JLS	PROJECT: 21-2502
DRAWN: SPH	DWG. NO.: 212502(k2)

FIGURE 1



Lot 3		
Asbestos Sample Results (Method EPA 600/R-93/116)		
Sample ID	**Description**	**Result**
L3A1	white drywall	ND
L3A1	white joint compound	ND
L3A2	white drywall	ND
L3A2	white joint compound	ND
L3A3	drywall	ND
L3A3	white joint compound	ND
L3A4	white joint compound	ND
L3A5	white drywall	ND
L3A5	off-white joint compound	ND
L3A6	white drywall	ND
L3A7	white drywall	ND
L3A8	white drywall	ND
L3A8	off-white joint compound	ND
L3A9	white drywall	ND
L3A9	off-white joint compound	ND
L3A-10	tan mastic	ND
L3A-11	black roof shingle	ND
L3A-11	black tar paper	ND
L3A-12	white caulking	ND
L3A-13	gray caulking	ND

Lot 3				
Lead Sample Results (XRF NITON)				
Sample ID	**Color**	**Surface**	**Substrate**	**Result (mg/cm^2)**
L3L-1	gray	siding	wood	0.00
L3L-2	gray	wall	concrete	0.00
L3L-3	white	wall	plywood	0.00
L3L-4	gray	wall	plywood	0.00
L3L-5	white	door	fiberglass	0.10
L3L-6	white	wall	plywood	0.00
L3L-7	white	wall	plywood	0.00
L3L-8	gray	floor	concrete	0.00
L3L-9	white	wall	drywall	0.00

LEGEND

0123 — ASBESTOS SAMPLE LOCATIONS NEGATIVE (<1% ASBESTOS)

0123 — ASBESTOS SAMPLE LOCATIONS POSITIVE (≥1% ASBESTOS)

SEE ASBESTOS TABULATED RESULTS FOR ACM SAMPLE NUMBER

0123 — LEAD BASED PAINT SAMPLE (<1mg/cm sq)(HUD)

0123 — LEAD BASED PAINT SAMPLE (≥1mg/cm sq)(HUD)

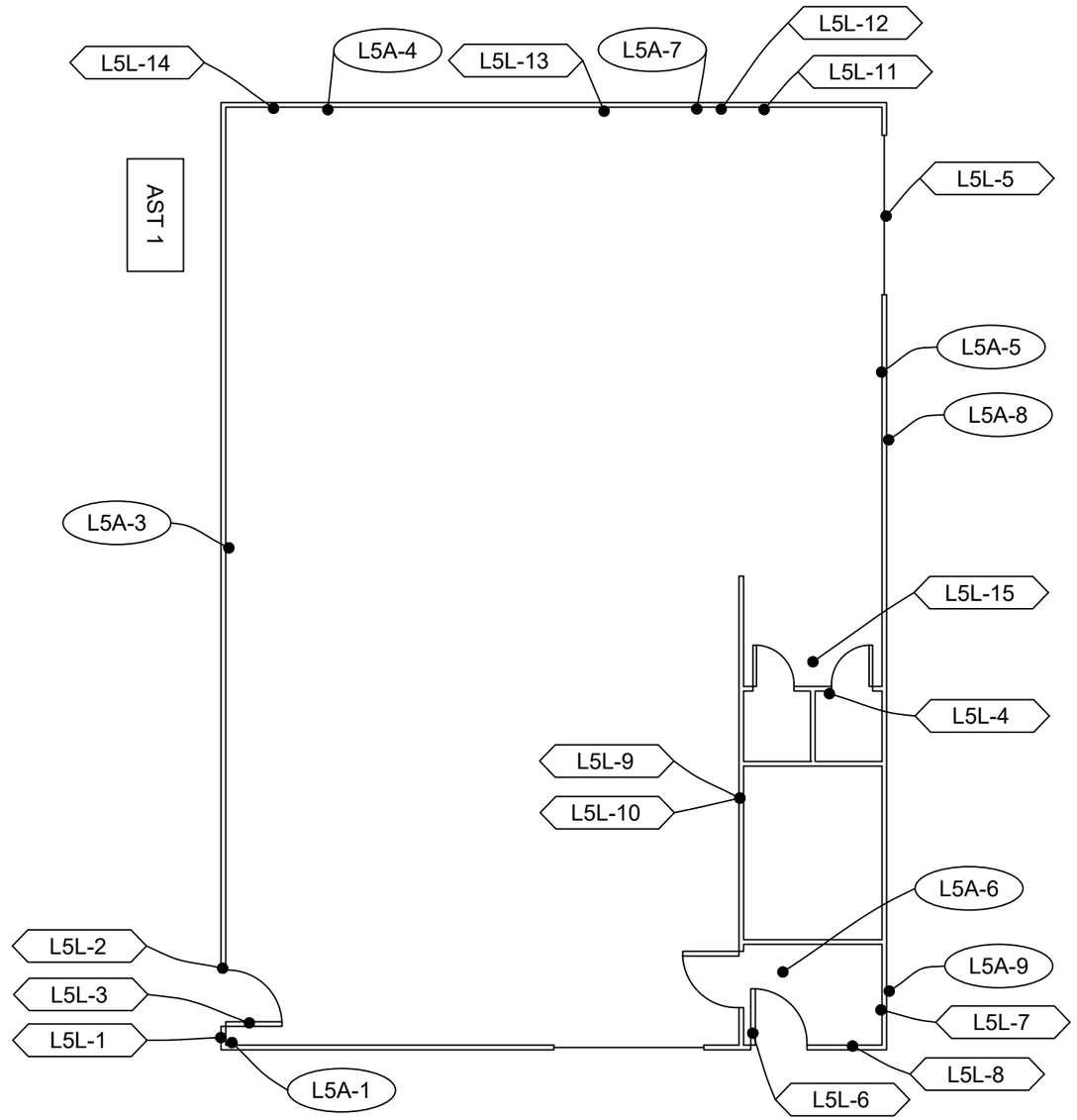
SEE LEAD BASED PAINT TABULATION RESULTS FOR CONCENTRATION FOR LEAD SAMPLE NUMBER

NORTECH
ENVIRONMENT, ENERGY, HEALTH & SAFETY CONSULTANTS
2400 College Road, Fairbanks, AK. 99709, 907-452-5688
3105 Lakeshore Dr., Anchorage, AK. 99517 907-222-2445
5438 Shaune Dr., Juneau, AK. 99801 907-586-6813

Lot 3 – Asbestos & Lead Sample Locations & Results
Kodiak Airport Building Hazardous Materials Assessment
Kodiak, Alaska

DATE: 12/15/2021	SCALE: 1/8" = 1'
PROJ MGR: JLS	PROJECT: 21-2502
DRAWN: SPH	DWG. NO.: 212502(k2)

FIGURE 2



Lot 5		
Asbestos Sample Results (Method EPA 600/R-93/116)		
Sample ID	**Description**	**Result**
L5A-1	black roof material	ND
L5A-3	off-white drywall	ND
L5A-4	white drywall	ND
L5A-4	off-white joint compound	ND
L5A-5	off-white joint compound	ND
L5A-5	white ceiling texture	ND
L5A-6	white drywall	ND
L5A-6	white joint compound	ND
L5A-7	yellow/gray foam	ND
L5A-8	yellow foam	ND
L5A-9	yellow foam	ND
L5A-9	tan rubber	ND

Lot 5				
Lead Sample Results (XRF NITON)				
Sample ID	**Color**	**Surface**	**Substrate**	**Result (mg/cm^2)**
L5L-1	beige	exterior wall	plywood	0.00
L5L-2	white	trim	wood	0.22
L5L-3	dark gray	door	fiberglass	0.00
L5L-4	light yellow	exterior wall	plywood	0.00
L5L-5	white	garage door	fiberglass	0.00
L5L-6	gray	door	fiberglass	0.00
L5L-7	white	wall	drywall	0.00
L5L-8	yellow	footer	concrete	0.00
L5L-9	metallic gray	wall	plywood	0.00
L5L-10	red	wall	plywood	0.00
L5L-11	yellow	electrical box	metal	0.4
L5L-12	red	outlet	metal	0.00
L5L-13	white	wall	drywall	0.00
L5L-14	light gray	wall	drywall	0.00
L5L-15	red	flammable cabinet	metal	0.6
L5L-16	white	wall	drywall	0.00

LEGEND

0123 — ASBESTOS SAMPLE LOCATIONS NEGATIVE (<1% ASBESTOS)

0123 — ASBESTOS SAMPLE LOCATIONS POSITIVE (≥1% ASBESTOS)

SEE ASBESTOS TABULATED RESULTS FOR ACM SAMPLE NUMBER

0123 — LEAD BASED PAINT SAMPLE (<1mg/cm sq)(HUD)

0123 — LEAD BASED PAINT SAMPLE (≥1mg/cm sq)(HUD)

SEE LEAD BASED PAINT TABULATION RESULTS FOR CONCENTRATION FOR LEAD SAMPLE NUMBER

N

NORTECH
ENVIRONMENT, ENERGY, HEALTH & SAFETY CONSULTANTS
2400 College Road, Fairbanks, AK. 99709, 907–452–5688
3105 Lakeshore Dr., Anchorage, AK. 99517 907–222–2445
5438 Shaune Dr., Juneau, AK. 99801 907–586–6813

Lot 5 – Asbestos & Lead Sample Locations & Results
Kodiak Airport Building Hazardous Materials Assessment
Kodiak, Alaska

DATE: 12/15/2021	SCALE: 1/8" = 1'
PROJ MGR: JLS	PROJECT: 21–2502
DRAWN: SPH	DWG. NO.: 212502(k2)

FIGURE 3

Appendix 2
Site Photographs

Photo 1: *Lot 3 building. Note the abandoned vehicles on the property and roof damage on the upper left corner.*

Photo 2: *Outbuilding on Lot 3 housing a 500-gallon AST, presumed to have dispensed gasoline.*

Photo 3: *Example of various universal wastes improperly stored throughout Lot 3. Note the lead-acid batteries (center of photo) and compressed gas cylinder (lower right corner).*

Photo 4: *Miscellaneous wastes stored on Lot 3's outbuilding. Note the outboard motor, fuel containers and compressed gas cylinders.*

Photo 5: *Semi-truck trailer and boat stored on Lot 3.* ***NORTECH*** *could not access the interior of the trailer.*

Photo 6: *Motorhome stored on Lot 3.*

Photo 7: *Interior of garage portion of main building on Lot 3. Note the floor drain in the center of the photo.*

Photo 8: *Close up of floor drain in garage on Lot 3.*

Photo 9: *Exterior of building on Lot 5A.*

Photo 10: *Interior of the main building on Lot 5A. The room to the right appears to be a former shop area, the room to the left appears to have been used as a living space.*

Photo 11: *Stack of lead-acid batteries observed in the shop area of the main building on Lot 5A.*

Photo 12: *Example of chemicals, lubricants, and coolants located within the shop area of the main building of Lot 5A.*

Photo 13: *Example of used oil stored within the shop area of the main building on Lot 5A.*

Photo 14: *Example of a 500-gallon diesel fuel tank located on Lot 5A. The tank is in poor condition and should not be reused.*

Photo 15: *Example of a "No PCBs" fluorescent ballast from Lot 5A.*

Photo 16: *Example of a fluorescent ballast without a "No PCBs" indicator on the sticker from Lot 3.*

Appendix 3
Laboratory Report

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647538 - PLM NOB Rev #4, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 7316893
Client No.: L3A1

Description: White Drywall
Client Description: Texture, JC, Tape, and GWB

Location: Interior Ceiling of Far Left Garage
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316894
Client No.: L3A2

Description: White Drywall
Client Description: Texture, JC, Tape, and GWB

Location: Interior Back Wall of Far Left Garage
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316895
Client No.: L3A3

Description: White Drywall
Client Description: Texture, JC, Tape, and GWB

Location: Right Wall Middle of Garage
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316896
Client No.: L3A4

Description: White Joint Compound
Client Description: Texture, JC, Tape, and GWB

Location: Left Wall Middle of Garage
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316897
Client No.: L3A5

Description: White Drywall
Client Description: Texture, JC, Tape, and GWB

Location: Ceiling of Middle of Garage
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/22/2021
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647538 - PLM NOB Rev #4, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 7316898
Client No.: L3A6

Description: White Drywall
Client Description: Texture, JC, Tape, and GWB

Location: Ceiling of Office
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316899
Client No.: L3A7

Description: White Drywall
Client Description: Texture, JC, Tape, and GWB

Location: Inside Bathroom of Right Exterior Wall
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316900
Client No.: L3A8

Description: White Drywall
Client Description: Texture, JC, Tape, and GWB

Location: Right Next to Office Entrance Door
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316901
Client No.: L3A9

Description: White Drywall
Client Description: Texture, JC, Tape, and GWB

Location: Far Left Wall in the Far Left Garage
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316902
Client No.: L3A-10

Description: Tan Mastic
Client Description: Grey Top Layer and Brown Mastic

Location: Bathroom Floor
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
38

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/22/2021
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647538 - PLM NOB Rev #4, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 7316903
Client No.: L3A-11
Description: Black Shingle
Client Description: Roof Shingle, Felt , and Tar
Location: Roof Sample
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 3.2 Fibrous Glass
Percent Non-Fibrous Material: 17.9

Lab No.: 7316903(L2)
Client No.: L3A-11
Description: Black Tar Paper
Client Description: Roof Shingle, Felt , and Tar
Location: Roof Sample
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 0.2

Lab No.: 7316904
Client No.: L3A-12
Description: White Caulk
Client Description: White Caulk
Location: Office Window on the Front Side of Building
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 5.6

Lab No.: 7316905
Client No.: L3A-13
Description: Grey Caulk
Client Description: Grey Caulk
Location: Office Window on the Left Side of Building
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 58.4

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/22/2021
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Nortech Engineering	Report Date:	11/22/2021
	5438 Shaune Drive	Report No.:	647538 - PLM NOB
	Juneau AK 99801	Project:	RMCI So. Coast Airports Bldg A
		Project No.:	21-2502
Client:	NOR543		

Appendix to Analytical Report:

Customer Contact: Jen Stoutamore
Method: ELAP Section 198.6

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Semih Kocahasan
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk materials described as Non Fibrous Organically Bound such as FT, SVF, M, RM, Tar, Tar Paper, Shingle, CB etc.
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

Information Pertinent to this Report:

Analysis by ELAP Section 198.6

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Quantification at <0.25% by volume is possible with this method.

(PC) Indicates Stratified Point Count Method performed.

(PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen.

Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions).

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Nortech Engineering	Report Date:	11/22/2021
	5438 Shaune Drive	Report No.:	647538 - PLM NOB
	Juneau AK 99801	Project:	RMCI So. Coast Airports Bldg A
		Project No.:	21-2502
Client:	NOR543		

Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com.**

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647538 - PLM Screen Rev #4, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7316893
Client No.: L3A1
Description: White Drywall
Facility:
Location: Interior Ceiling of Far Left Garage

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
2 Cellulose
2 Fibrous Glass

Percent Non-Fibrous Material:
96

Lab No.: 7316893(L2)
Client No.: L3A1
Description: White Joint Compound
Facility:
Location: Interior Ceiling of Far Left Garage

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7316894
Client No.: L3A2
Description: White Drywall
Facility:
Location: Interior Back Wall of Far Left Garage

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
2 Cellulose
1 Fibrous Glass

Percent Non-Fibrous Material:
97

Lab No.: 7316894(L2)
Client No.: L3A2
Description: White Joint Compound
Facility:
Location: Interior Back Wall of Far Left Garage

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7316895
Client No.: L3A3
Description: White Drywall
Facility:
Location: Right Wall Middle of Garage

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
2 Fibrous Glass
1 Cellulose

Percent Non-Fibrous Material:
97

Lab No.: 7316895(L2)
Client No.: L3A3
Description: White Joint Compound
Facility:
Location: Right Wall Middle of Garage

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to pages 1 through 4 of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/17/2021
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647538 - PLM Screen Rev #4, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7316896 **Client No.:** L3A4	**Description:** White Joint Compound **Facility:**	**Location:** Left Wall Middle of Garage
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 100
Lab No.: 7316897 **Client No.:** L3A5	**Description:** White Drywall **Facility:**	**Location:** Ceiling of Middle of Garage
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 1 Fibrous Glass	Percent Non-Fibrous Material: 99
Lab No.: 7316897(L2) **Client No.:** L3A5	**Description:** Off-White Joint Compound **Facility:**	**Location:** Ceiling of Middle of Garage
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 100
Lab No.: 7316898 **Client No.:** L3A6	**Description:** White Drywall **Facility:**	**Location:** Ceiling of Office
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 2 Fibrous Glass	Percent Non-Fibrous Material: 98
Lab No.: 7316899 **Client No.:** L3A7	**Description:** White Drywall **Facility:**	**Location:** Inside Bathroom of Right Exterior Wall
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 2 Fibrous Glass	Percent Non-Fibrous Material: 98
Lab No.: 7316900 **Client No.:** L3A8	**Description:** White Drywall **Facility:**	**Location:** Right Next to Office Entrance Door
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 2 Fibrous Glass	Percent Non-Fibrous Material: 98

Please refer to pages 1 through 4 of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/17/2021
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647538 - PLM Screen Rev #4, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7316900(L2)
Client No.: L3A8
Description: Off-White Joint Compound
Facility:
Location: Right Next to Office Entrance Door

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7316901
Client No.: L3A9
Description: White Drywall
Facility:
Location: Far Left Wall in the Far Left Garage

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
2 Fibrous Glass

Percent Non-Fibrous Material:
98

Lab No.: 7316901(L2)
Client No.: L3A9
Description: Off-White Joint Compound
Facility:
Location: Far Left Wall in the Far Left Garage

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to pages 1 through 4 of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/17/2021
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647538 - PLM Screen Rev #4, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7316902
Client No.: L3A-10
Description: Tan Mastic
Facility:
Location: Bathroom Floor

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7316903
Client No.: L3A-11
Description: Black Shingle
Facility:
Location: Roof Sample

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 10 Fibrous Glass
Percent Non-Fibrous Material: 90

Lab No.: 7316903(L2)
Client No.: L3A-11
Description: Black Tar Paper
Facility:
Location: Roof Sample

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 50 Cellulose
Percent Non-Fibrous Material: 50

Lab No.: 7316904
Client No.: L3A-12
Description: White Caulk
Facility:
Location: Office Window on the Front Side of Building

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7316905
Client No.: L3A-13
Description: Grey Caulk
Facility:
Location: Office Window on the Left Side of Building

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to pages 1 through 4 of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/18/2021
Signature:
Analyst: Sarah Lipiecki

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Nortech Engineering	Report Date:	11/22/2021
	5438 Shaune Drive	Report No.:	647538 - PLM Screen
	Juneau AK 99801	Project:	RMCI So. Coast Airports Bldg A
		Project No.:	21-2502
Client:	NOR543		

Appendix to Analytical Report:

Customer Contact: Jen Stoutamore
Analysis: US EPA 600, R93-116

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.
iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Semih Kocahasan

Project Summary:

Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Nortech Engineering	Report Date:	11/22/2021
	5438 Shaune Drive	Report No.:	647538 - PLM Screen
	Juneau AK 99801	Project:	RMCI So. Coast Airports Bldg A
		Project No.:	21-2502
Client:	NOR543		

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647538 - PLM Screen
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

IATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.
The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.
Pricing/Turnaround Time: Please contact your client representative for options available.

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.
Pricing/Turnaround Time: Please contact your client representative for options available.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.
Pricing/Turnaround Time: Please contact your client representative for options available.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.
Pricing/Turnaround Time: Please contact your client representative for options available.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.
Pricing/Turnaround Time: Please contact your client representative for options available.

LOQ, Limit of Quantitation estimates for mass and volume analyses.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647539 - PLM NOB Rev #3, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 7316906
Client No.: L5A-1
Description: Black Roof Material
Client Description: Felt and Tar
Location: Under Metal Roofing
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
2.9

Lab No.: 7316907
Client No.: L5A-2
Description: Sample Not Analyzed
Client Description: Texture, Tape, and GWB
Location: Wall That Was Constructed to Make an Office
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316908
Client No.: L5A-
Description: Off-White Drywall
Client Description: Texture, Tape, and GWB
Location: Wall on the Left Side of the Building
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316909
Client No.: L5A-4
Description: White Drywall
Client Description: Texture, Tape, and GWB
Location: Wall at the Back of the Building
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316910
Client No.: L5A-5
Description: Off-White Joint Compound
Client Description: Texture, Tape, and GWB
Location: Wall on the Right Side of the Building
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316911
Client No.: L5A-6
Description: White Drywall
Client Description: Texture, Tape, and GWB
Location: Ceiling of Office
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/22/2021
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647539 - PLM NOB Rev #3, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 7316912
Client No.: L5A-7

Description: Yellow/Grey Foam
Client Description: Foam

Location: From Used to Seal Up ant Area That Used to Contain a Window
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316913
Client No.: L5A-8

Description: Yellow Foam
Client Description: Foam

Location: Window on the Right Side of the Building
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316914
Client No.: L5A-9

Description: Yellow Foam
Client Description: Foam and Rubber Seal

Location: Window on the Right Side of the Building
Facility:

Percent Asbestos:
Sample Not Analyzed
Not analyzed - not NOB material

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 7316914(L2)
Client No.: L5A-9

Description: Tan Rubber
Client Description: Foam and Rubber Seal

Location: Window on the Right Side of the Building
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
0.0

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/22/2021
Signature:
Analyst: Ellen Smith

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Nortech Engineering	Report Date:	11/22/2021
	5438 Shaune Drive	Report No.:	647539 - PLM NOB
	Juneau AK 99801	Project:	RMCI So. Coast Airports Bldg A
		Project No.:	21-2502
Client:	NOR543		

Appendix to Analytical Report:

Customer Contact: Jen Stoutamore
Method: ELAP Section 198.6

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Semih Kocahasan
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk materials described as Non Fibrous Organically Bound such as FT, SVF, M, RM, Tar, Tar Paper, Shingle, CB etc.
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

Information Pertinent to this Report:

Analysis by ELAP Section 198.6

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Quantification at <0.25% by volume is possible with this method.

(PC) Indicates Stratified Point Count Method performed.

(PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen.

Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions).

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Nortech Engineering	Report Date:	11/22/2021
	5438 Shaune Drive	Report No.:	647539 - PLM NOB
	Juneau AK 99801	Project:	RMCI So. Coast Airports Bldg A
		Project No.:	21-2502
Client:	NOR543		

Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com.**

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647539 - PLM Screen Rev #3, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7316906
Client No.: L5A-1
Description: Black Roof Material
Facility:
Location: Under Metal Roofing

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
15 Cellulose

Percent Non-Fibrous Material:
85

Lab No.: 7316907
Client No.: L5A-2
Description: Sample Not Analyzed
Facility:
Location: Wall That Was Constructed to Make an Office

Percent Asbestos:
Sample Not Analyzed

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:
100

Lab No.: 7316908
Client No.: L5A-
Description: Off-White Drywall
Facility:
Location: Wall on the Left Side of the Building

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7316909
Client No.: L5A-4
Description: White Drywall
Facility:
Location: Wall at the Back of the Building

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
2 Fibrous Glass

Percent Non-Fibrous Material:
98

Lab No.: 7316909(L2)
Client No.: L5A-4
Description: Off-White Joint Compound
Facility:
Location: Wall at the Back of the Building

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7316910
Client No.: L5A-5
Description: Off-White Joint Compound
Facility:
Location: Wall on the Right Side of the Building

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to pages 1 through 4 of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/18/2021
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647539 - PLM Screen Rev #3, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7316910(L2)
Client No.: L5A-5
Description: White Ceiling Texture
Facility:
Location: Wall on the Right Side of the Building

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7316911
Client No.: L5A-6
Description: White Drywall
Facility:
Location: Ceiling of Office

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 2 Fibrous Glass
Percent Non-Fibrous Material: 98

Lab No.: 7316911(L2)
Client No.: L5A-6
Description: White Joint Compound
Facility:
Location: Ceiling of Office

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7316912
Client No.: L5A-7
Description: Yellow/Grey Foam
Facility:
Location: From Used to Seal Up ant Area That Used to Contain a Window

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7316913
Client No.: L5A-8
Description: Yellow Foam
Facility:
Location: Window on the Right Side of the Building

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 7316914
Client No.: L5A-9
Description: Yellow Foam
Facility:
Location: Window on the Right Side of the Building

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to pages 1 through 4 of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/18/2021
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647539 - PLM Screen Rev #3, 11/30/2021
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7316914(L2)
Client No.: L5A-9

Description: Tan Rubber
Facility:

Location: Window on the Right Side of the Building

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to pages 1 through 4 of this report for further information regarding your analysis.

Date Received: 11/12/2021
Date Analyzed: 11/18/2021
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Nortech Engineering	Report Date:	11/22/2021
	5438 Shaune Drive	Report No.:	647539 - PLM Screen
	Juneau AK 99801	Project:	RMCI So. Coast Airports Bldg A
		Project No.:	21-2502
Client:	NOR543		

Appendix to Analytical Report:

Customer Contact: Jen Stoutamore
Analysis: US EPA 600, R93-116

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.
iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Semih Kocahasan

Project Summary:

Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Nortech Engineering	Report Date:	11/22/2021
	5438 Shaune Drive	Report No.:	647539 - PLM Screen
	Juneau AK 99801	Project:	RMCI So. Coast Airports Bldg A
		Project No.:	21-2502
Client:	NOR543		

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Nortech Engineering
5438 Shaune Drive
Juneau AK 99801

Client: NOR543

Report Date: 11/22/2021
Report No.: 647539 - PLM Screen
Project: RMCI So. Coast Airports Bldg A
Project No.: 21-2502

IATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.
The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.
Pricing/Turnaround Time: Please contact your client representative for options available.

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.
Pricing/Turnaround Time: Please contact your client representative for options available.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.
Pricing/Turnaround Time: Please contact your client representative for options available.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.
Pricing/Turnaround Time: Please contact your client representative for options available.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.
Pricing/Turnaround Time: Please contact your client representative for options available.

LOQ, Limit of Quantitation estimates for mass and volume analyses.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

Appendix 4
NORTECH Methodologies

HAZARDOUS MATERIALS
STANDARDIZED METHODOLOGY
Version 19
June 2021

Objective and Management

NORTECH hazardous materials assessment methodologies are developed to comply with currently applicable regulations utilizing standard industrial hygiene practices designed for the anticipation, recognition, evaluation, and control of those factors or stressors arising in or from the workplace that may cause sickness, impaired health and well-being, or significant discomfort among workers or citizens of the community. Qualified personnel with current certifications and experience conduct field assessment inspections and sampling efforts. All work completed is managed, reviewed, and signed off on by a board Certified Industrial Hygienist (CIH) or Professional Engineer.

Scope of Work

NORTECH provides a variety of hazardous material services as necessary to meet project specific needs cost effectively. In order to minimize costs, ***NORTECH*** has developed the following standardized hazardous material assessment scopes of work.

Limited Hazardous Material Assessment: The assessment scope of work is limited to specifics as specified by the client in the written contract and/or project communications. Limitations may include/exclude contaminants, destructive testing, costs, and/or areas to be assessed.

Pre-Renovation Hazardous Material Assessment: The assessment is limited to a specific project renovation scope.

Pre-Demolition Hazardous Material Assessment: The assessment is in preparation for an entire building demolition.

Hazardous materials included in this standard are:

- Asbestos Containing Materials (ACM)
  - Building Materials
  - Naturally Occurring Asbestos (NOA)
- Asbestos in Dust
- Silica in Dust
- Lead Based Paint (LBP)
- Lead in Soil
- Universal Wastes
- Polychlorinated Biphenyls (PCBs)
  - Bulk Materials
  - Wipe Samples
  - Air Samples
  - TSCA Regulated Materials
- RCRA Eight Heavy Metals
- Other Wastes Requiring Special Handling

Definition of Hazardous Materials

Hazardous materials are defined as any material requiring special handling or disposal during demolition or renovation. Of particular interest are asbestos containing building materials

(ACBM), lead based paint (LBP), RCRA eight heavy metals and other hazardous materials including polychlorinated biphenyls (PCBs), radioactive materials in smoke detectors & self-illuminating exit signs, lead-acid batteries, wastewater, water intrusion fungal amplification, petroleum oils and lubricants (POLs) mercury containing equipment (switches, bulbs etc.) and other chemical and biological contaminants.

Universal Waste
EPA's universal waste regulations set forth in 40 CFR part 273 streamline hazardous waste management standards for federally designated "universal wastes," which include:

- Batteries
- Paints & pressurized containers
- Chemicals & pesticides
- Mercury in switches and fluorescent light tubes

The regulations govern the collection and management of these widely generated wastes. These regulations are designed to improve hazardous material handling and disposal of universal wastes by easing the regulatory burden on generators and facilitating disposal program development.

Regulatory
The hazardous material surveys are conducted to comply with the asbestos survey requirements of the Occupational Safety and Health Administration (OSHA) found in 29 CFR 1926. These regulations state that before authorizing or allowing any construction, demolition, renovation, or remodeling, the owner, owner's agent, or employer, must notify contractors or other persons of the location and quantities of ACM within the work area.

U.S. Environmental Protection Agency National Emissions Standards for Hazardous Air Pollutants (NESHAP) requires a thorough inspection for friable and non-friable ACM by an accredited Asbestos Hazard Emergency Response Act (AHERA) inspector prior to any renovation or demolition activity (40 CFR 61.145). NESHAP also requires notification for removal or abatement of regulated quantities of ACM (>260 square feet, >160 linear feet, or >35 cubic feet of regulated asbestos containing material (RACM)).

Asbestos Containing Materials
The asbestos sampling collection technique used during the survey generally follows the AHERA method as defined in 40 CFR 763. Laboratory analysis of samples are completed by a laboratory certified through the National Voluntary Laboratory Accreditation Program (NVLAP) to perform asbestos analysis by polarized light microscopy (PLM) according to EPA method 600/R-93/116 to determine the percent concentration by weight as required by the current OSHA standard. Building material containing 1% or greater asbestos content is considered asbestos containing material.

Asbestos containing building materials with sample results less than 5% asbestos are analyzed by 400-point count EPA 600/R-93/116 method. Analysis by 400-point count has a detection limit of 0.25% and can provide greater accuracy, especially for sample results on the margin of 1%. Alternatively, for non-friable organically bound materials such as vinyl flooring, roofing, mastics, and caulking, gravimetric preparation of the sample is an additional process to the 400 point count EPA 600/R-93/116 method. Asbestos present in those materials are typically tightly bound and not easily identified by microscopy and thus may require additional sample preparation.

It is a common practice to measure asbestos concentration in air if you suspect that asbestos fibers may be present. Sampling is performed if asbestos was discovered in a particular area, if you accidentally disturbed an asbestos-containing material, or when asbestos was removed, and abatement team needs to verify that no residual asbestos is left in the air. Asbestos concentration in air is strictly regulated. Asbestos concentration in the air of a working zone cannot exceed 0.1 fiber per centimeter cube (f/cc). For asbestos abatement clearance test, this level is: 0.01 f/cc. The most common method for asbestos testing in air is a method developed by National Institute of Occupational Safety and Health (USA): NIOSH

Asbestos in Dusts
Protocol for determining asbestos containing material (ACM) in dust collection requires analysis by TEM (Transmission Electron Microscopy) by a laboratory certified through the National Voluntary Laboratory Accreditation Program (NVLAP) to perform TEM analysis. Dust collection for lab testing may either involve dust wipe collection using a laboratory supplied “Ghostwipe”™ and sized template, or by utilizing a laboratory supplied 37 mm TEM air cassette inline with a pump and plastic tubing and vacuuming a known amount of surface area coated in dust.

With regard to lab analysis of samples collected, there are no standards for asbestos in settled dust against which one can compare results. However, the literature (Millette and Hays, 1994) has provided some general conclusions regarding interpretation of sampling data on the level of asbestos in settled dust and is based on extensive field data, observation, and experience. They report that a level of less than 1,000 asbestos structures/cm^2 is low, while levels above 10,000 s/cm^2 are considered generally above background. Levels greater than 100,000 s/ cm^2 are indicative of elevated concentrations of asbestos fibers with significant risk of exceeding the OSHA permissible exposure level (PEL) for most work tasks.

Silica in Dusts
Air Sample Collection: Sampling for silica is performed by using 37mm PVC filters utilizing an air sampling cyclone. A minimum of 2.7 liters/minute of air is required to achieve a laboratory limit of detection compatible to the OSHA PEL and Action Level. Both NIOSH Method 7500 and NIOSH Method 7602 are comparioble for laboratory analysis of airborn silica. NIOSH 7500 uses X-Ray Diffraction while NIOSH 7602 uses the Fourier Transform Infared Spectroscopy. The determination of laboratory method should be by comparing any known or suspected interferences in the sample, such as phosphates, potash, or zircon and choosing the analysis that does not contain known interferences with those identified during sampling. Laboratory sensitivity for both tests of 5 µg/m^3, which is 10% of the PEL.

Wipe Sample Collection: Wipe sampling of silica on horizontal surfaces, a modified NIOSH 7500 or modified NIOSH 7602 is performed during laboratory testing utilizing a ghost wipe as the preferred sampling media. A minimum of 50 milligrams of settled dust is required from an area of 1 ft^2 to be placed in to a sealed container.

Workers’ exposures would be limited to a PEL of 50 micrograms of respirable crystalline silica per cubic meter of air (µg/m^3), averaged over an 8-hour day. An Action Level of 25 µg/m^3 was established where exposure control methods, respiratory protection, and regulated areas with a a written control plan with exposure assessment should be performed. The Action Level and PEL are the same in both general industry, maritime, and construction. There is currently no standard to compare settled silica dust concentrations against potential respirable concentrations. The presence of silica contamination in dust is a worker exposure issue if the dust becomes airborne and is inhaled.

Lead Based Paint (LBP)
Quantification of lead-based paint is performed according to NIOSH 7702, using a Thermo Fisher NITON XLp-303A, x-ray fluorescent (XRF) spectrum analyzer, providing EPA accepted real-time, on-site sample results. A Performance Characteristics Sheet (PCS), that routinely accompanies the NITON analyzer, provides supplemental information to be used in conjunction with Chapter 7 of the HUD guidelines. The PCS indicates that substrate corrections are not required for this instrument when operated in accordance with the manufacturer's instructions and HUD guidelines. Environmental Protection Agency/Department of Housing and Urban Development (EPA/HUD) protocol for the inspection of LBP in residential structures is generally followed.

Lead analysis of paint may also be determined by scrape sample and lab analysis. Representative paint scrape samples of the building's construction materials are collected from each representative paint type and color. Paint scrapes are collected within a 10 cm^2 area and sent to lab for analysis by percentage of lead per weight of paint collected.

All paint may contain a measurable amount of lead, however, EPA and HUD consider paint containing 1.0 mg/cm^2 (XRF analysis) or 0.5 percent (5,000 ppm) by weight (lab analysis) and higher to be LBP. These guidelines may not be directly applicable to this project, but are a good reference for evaluating the investigation's sample results. Paint with lower concentrations of lead than these thresholds may still pose an OSHA health hazard if mishandled. The LBP assessment is completed by qualified personnel with current EPA lead inspector certification.

EPA guidance lists documented methodologies that are appropriate for the work practice standards, including U.S. Housing and Urban Development (HUD) guidelines and certain EPA methodologies, and states that "other equivalent methods" are acceptable.

Lead in Soil
EPA defines lead hazards in soils depending on the land use (40 CFR 745.65 (c) & Section 403 of Title X of the Toxic Substance Control Act (TSCA)). Bare soils meeting or exceeding the following limits are considered hazardous:

- Residential and children's high contact play areas 400 mg/Kg
- Commercial – non-residential, 800 mg/Kg
- Bare soil in industrial settings, 1200 mg/Kg

EPA regulates bare soils in excess of 1,200 mg/Kg as industrial, and restricts access by children. Soils in excess of 5,000 mg/Kg fall under the TCLP rule for hazardous wastes and would require abatement or permanent encapsulation.

The ADEC published residential soil cleanup level for lead is 400mg/Kg of soil dry weight. ADEC specific cleanup criteria language for lead in soils provided in Note 11 of Table B1 in 18 AAC 75.341 states:

> Lead cleanup levels must be determined on a site-specific basis, based on land use. For residential land use, the soil cleanup level is 400 mg/kg. For commercial or industrial land use, as applied in 18 AAC 75.340(e)(3), the soil cleanup level is 1,000 mg/kg. Through an approved site-specific risk assessment, conducted according to the *Risk Assessment Procedures Manual*, adopted by reference at 18 AAC 75.340, approved exposure models may be used to evaluate exposure to a child resident or an adult worker; a responsible person may also propose an alternative cleanup level, through a

site-specific risk assessment conducted according to the *Manual*, and based on a chemical speciation of the lead present at the site. For soils contaminated with lead more than 15 feet below ground surface, lead cleanup levels will be determined on a site-specific basis.

Polychlorinated Biphenyls (PCB)

Bulk sample collection: Bulk material testing for PCBs collects a representative sample of a material to be sent for laboratory analysis. Materials should be carefully collected independently to prevent potential contamination from other surfaces in direct contact with the suspected material. For porous materials, such as concrete, brick, and wood, a minimum of 2 cm deep and 2cm wide of material shall be collected as a cores sample rather than a traditional surface bulk sample. Best practices are utilized in the core sampling procedure to minimize dust generation and potential area contamination. A minimum of 10 grams of material is placed in a glass jar for laboratory analysis by EPA SW-846 3540C/8082A. Samples will be placed, stored, and shipped in a cooled container to maintain a temperature of <4°C. The reporting limit for this method of detection is 0.5 mg/Kg.

Wipe sample collection: For non-porous unpainted surfaces and materials, such as metals, a wipe sample is used to determine potential PCB contamination. A acetone/hexane moistened wipe is used to thoroughly rub a surface with an area of 100 cm^2 or 10 cm by 10 cm. The wipe sample is placed in a glass jar for laboratory for analysis by EP SW-846 3550B/8082A. Samples will be placed, stored, and shipped in a cooled container to maintain a temperature of <4°C. The reporting limit for this method is 0.50 μg/100 cm^2.

Indoor air sample collection: For Aroclor 1242 and Aroclor 1254, OSHA has a PEL of 1.0 mg/m^3 and 0.5 mg/m^3 respectively. For alaysis by NIOSH Method 5503, a Florisil tube with a Swinnex pre-filter is used to collect the air sample. The reporting limit for this method of analysis is 0.5 μg/m^3 based on 50 liters of air. For analysis by EPA TO-10A, a polyurethane foam plug sorbent tube is used with a flow rate of up to 5 liters per minute. This analysis method has a reporting limit of 0.05 μg/m^3 based on 1000 liters of air. A high flow air sample can also be utilized by EPA TO-4A analysis. A high flow air sample may be used with a flow rate up to 225 liters per minute and maintains the same sampling media, albeit of a larger sizing, as the EPA TO-10A method along with the same reporting limit.

Toxic Substances Control Act (TSCA): TSCA regulations state that any liquid containing PCBs at a concentration of greater than 50 ppm and solids containing a concentration greater 500 ppm are PCB containing and require proper disposal. Surface contamination of materials are applicable for materials that contain a surface concentration of PCBs greater than 100 μg/100 cm^2 and pertain to all applicaple regulations for solid materials greater than 500 ppm. For mineral oil-filled equipment manufactured before July 2, 1979, it must be assumed to be PCB containing unless a permanent label or other documentation from the manufacturer indicates the PCB concentration at the time of manufacture. For transformers, this assumption is only required when the transformer contains a minimum of 3 pounds of fluid other than mineral oil or the type of fluid is unknown. TSCA regulations state that cleanup levels of contamination are determined by the occupancy rate of the given area. For High occupancy areas, a cleanup level of less than 10 μg/100 cm^2 is required. For low occupany areas, a level of less than 100 μg/100 cm^2 is acceptable.

RCRA Eight Heavy Metals

Determination of the demolition waste toxicity for the RCRA eight heavy metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium and Silver) is based on a certified lab

performing the Toxicity Characteristic Leaching Procedure (TCLP) (EPA SW846, Method-1311) analysis of a representative composite sample of the structure's building materials.

During the field effort, a visual inspection is conducted to identify the presence of each of the RCRA eight heavy metals and approximate percent by weight of each expected to be in the building debris waste stream. A representative sample of the entire waste stream, including the RCRA metals present, is collected and homogenized into a composite sample of the entire project's debris/waste stream and then analyzed at a certified lab in accordance with TCLP procedure. The TCLP test measures the potential for the eight metals identified in the Resource Conservation and Recovery Act (RCRA) to leach from a representative composite sample of the debris/waste stream under simulated landfill conditions. RCRA regulations allow for calculating the TCLP result from a composite sample with total metals using the "20:1 Rule" that account for the dilution of metals concentrations during the analysis.

Another alternative method is to calculate a Theoretical TCLP based on the observed quantities of construction materials with regard to potential heavy metals. Assuming all paint associated with the structure is lead-based paint, a theoretical calculation of the ratio between paint to construction debris waste can be used in place of a representative waste stream (TCLP) sampling to determine whether the project waste stream will be hazardous for lead and heavy metals in accordance with hazardous waste standard. This method involves using project specific knowledge to calculate the concentration of lead in the entire quantity of debris as follows:

If a waste is 100% solid, as defined by the TCLP method, then the results of the total constituent analysis may be divided by twenty to convert the total results into the maximum leachable concentration. This factor is derived from the 20:1 liquid-to-solid ratio employed in the TCLP. If a waste has filterable liquid, then the concentration of the analyte in each phase (liquid and solid) must be determined.

The following equation may be used to calculate this value:

$$\frac{[A \times B] + [C \times D]}{B + [20\ (L/kg) \times D]} = E$$

Where:

A = Concentration of the analyte in liquid portion of the sample (mg/L)
B = Volume of the liquid portion of the sample (L).
C = Concentration of the analyte in solid portion of the sample (mg/kg)
D = Weight of the solid portion of the sample (kg)
E = Maximum theoretical concentration in leachate (mg/L)

The value obtained (E) can be used to show that the maximum theoretical concentration in a leachate from the waste could not exceed the concentration specified in the toxicity characteristic (TC) (40 CFR 261.24).

In addition, if the total constituent analysis results themselves are below the TC limits without dividing by 20, then the same argument holds true, i.e., the maximum theoretical concentration in the leachate could not exceed the TC limits.

The 100 milligrams per kilogram value used in the determination is based on the 20:1 rule which represents the lowest possible mass analysis concentration, which could leach out greater than 5.0 milligrams per liter in a TCLP test. This is due to the 20:1 dilution ratio of the TCLP test protocol and also assumes that 100% of the lead in the sample will leach out. In most circumstances, 100% of the lead would rarely leach out. However, this assumption must be made in the place of actual TCLP laboratory results. This "worst-case" assumption adds a "safety factor" to compensate for errors in the data or in calculating the mass of the structure. If the initial test results show that the average weight percent of lead in the lead-based paint, the average paint thickness, or the average paint density varies widely from one part of the structure to another, it may be better to do separate "mass of lead-based paint" or "mass of lead in the lead-based paint" calculations for each part of the structure with similar values. The individual results for the different parts of the structure can then be summed before dividing by the mass of the entire structure.

The presence or absence of suspect RCRA 8 hazardous metals is verified by visually inspecting the structure, testing multiple like components with a NITON XRF, or collecting paint chip samples for laboratory analysis during the investigation. If no RCRA 8 suspect materials or suspect conditions are observed, the total lead in milligrams (mg) can be calculated for the materials (paint and substrate) in which LBP concentrations are assumed to be greater than EPA/HUD's standard of <0.5% or <1mg/cm^2 limit for what can be considered non-lead based paint. The calculations use the highest average lead value for each painted surface. Not all surfaces of the structure are painted, nor are openings & voids accounted for in the square footages calculated. Multiplying the average value of LBP (in mg/cm^2) by the total square footage area (in cm^2) of all painted surfaces, a total amount of milligrams of lead in the paint is estimated. A total (minimum) expected mass of kilograms of demolition debris is then calculated for the waste stream. The final calculation of the theoretical TCLP then uses the total milligrams of lead divided by the kilograms of demolition debris which equals the mass (mg/kg) of lead in the demolition waste stream. If the mass concentration of lead is less than the 20:1 rule criteria of 100 mg/kg, the debris waste stream is considered either non-hazardous. If the calculated concentration is higher than 100 mg/kg than additional assessment may be recommended. or hazardous for leachable lead.

Other Hazardous Materials
Determination of other hazardous materials involves the processes described by EPA as follows:

- Is the material a solid waste? (See: 40 CFR Part 261.2)
- Is the waste specifically excluded from RCRA? (See: 40 CFR Part 261.4)
- Is the waste a listed hazardous waste? (See: 40 CFR Part 261.30)
- Does the waste exhibit a characteristic of hazardous waste? (See: 40 CFR Part 261.20)

During structure investigation, other hazardous materials posing an environmental concern or health risk are watched for and where visually observed are noted in the report findings. Determinations of other hazardous materials were based on the above EPA guidelines. These other hazardous materials include:

- Mastics
- Caulks
- Lead containing building materials
- Stored chemicals, heating oils, hydraulic oils, automotive fuel products & lubricants

- Radioactive materials in smoke detectors & self-illuminating emergency exit signs
- Lead-acid batteries in emergency lighting and emergency exit signs
- Mercury in thermostats, fluorescent light tubes & HID mercury vapor lighting
- PCB containing power transformers & PCB containing fluorescent light ballasts
- Stored, unidentified or flammable liquids, paints or pressurized containers
- Freon gas canisters
- Fire extinguishers & HALON fire suppression systems.

Limitations

NORTECH provides a level of service that is performed within the standard of care and competence found within this practice and the engineering profession. It must be recognized that limitations in a hazardous material inspection and assessment exist. The data presented should be considered representative of only the time and observances of our inspection. In addition, changes in the condition of the materials within the facility can occur with the passing of time, due to natural processes and/or from human activities. ***NORTECH*** has performed the work, made the findings, and proposed recommendations in accordance with generally accepted environmental engineering practices using the best technology available at the time the work was performed.

NORTECH has based its conclusions and recommendations on our current understanding of regulatory policies. The regulations concerning hazardous materials are constantly changing, including the interpretations of regulating agencies. If changes in regulations or their interpretation occur, then ***NORTECH*** reserves the right to amend or revise conclusions and/or recommendations.