

INSPECTION REPORT



For the Property at:
809 22ND AVE SOUTH
GRAND FORKS, ND 58201

Prepared for: CHRIS ARNOLD
Inspection Date: Tuesday, January 14, 2020
Prepared by: Lars Knobloch



Nordic Companies Inc
3628 Pierce Street South
Fargo, ND 58104
701-566-1446

www.nordiccompaniesinc.com
lars@nordiccompaniesinc.com

TRUST THE NORSEMEN



January 19, 2020

Dear Chris Arnold,

RE: Report No. 6906
809 22nd Ave South
Grand Forks, ND
58201

Our services conform to the industry standards for mold sampling and interpretation. All recommendations for mold remediation are based on IICRCs S520 Standards and Reference Guide for Professional Mold Remediation. The samples collected are analyzed by the nation's leading environmental testing firm; EMSL Analytical, Inc. Our Consultant is a Certified Indoor Environmentalist (CIE), Certified ASHI Inspector (ACI), Certified Residential and Commercial Mold Inspector, and has 19 years experience in mold industry, inspection and construction. We do not offer contracting services; therefore, you know our opinions are unbiased. A complete mold specification can be developed by Nordic Environmental for an additional cost to help prevent mold remediation contractors from recommending an unneeded and overly expensive solution.

Thank you for your interest in Nordic Environmental. Please feel free to call should you have any questions.

Sincerely,

Lars Knobloch
on behalf of
Nordic Companies Inc

Nordic Companies Inc
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Fargo, ND 58104
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AGREEMENT

809 22nd Ave South, Grand Forks, ND January 14, 2020

Report No. 6906

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PARTIES TO THE AGREEMENT

Company

Nordic Companies Inc
3628 Pierce Street South
Fargo, ND 58104

Client

Chris Arnold

Total Fee: \$550.00

This is an agreement between Chris Arnold and Nordic Companies Inc.

MOLD INSPECTION AGREEMENT

The assessment is based on findings of the physical inspection and testing. Findings are current and accurate for the date and time they were found, but do not reflect expected or predictable mold growth and infestation on and within the property. The report addresses only those areas physically inspected and sampled. The Consultant is not responsible or liable for the non-discovery of any water damage, water problems, mold contamination, or other conditions of the Subject Property which may occur or may become evident after the inspection and testing time and date. The Consultant is neither an insurer nor guarantor against water problems, mold problems or other defects at the Subject Property and improvements, systems or components inspected. The Consultant makes no warranty, expressed or implied as to the fitness for use of condition of the systems or components inspected. The Consultant assumes no responsibility for the cost of repairing any water problems, mold problems or any other defects or conditions.

The property owner is the one liable for correcting the source of the problem. The Consultant is not responsible or liable for any future water problems, mold problems or any other future failures or repairs. Remediation recommendations are suggested guidelines, not a detailed remediation protocol. More or less action may be necessary and will be determined by the remediation company chosen by the property owners or other responsible party.

The client requests the inspection of the Subject Property subject to the following limitations and conditions:

1. The inspection, testing, interpretations and recommendations will be performed following current industry standards.
2. The report is an opinion of the current condition of the property, based on the testing performed, and a visual inspection of the readily accessible areas of the building, and/or areas specified by the client.
3. The client understands and agrees that the liability of Nordic Environmental, its employees and agents, is limited to the Inspection Fee.
4. The written report will be available within 7 business days of the day the testing was completed.
5. The client agrees to pay the inspection fee in full no later than the day of the assessment

I, Chris Arnold (Signature) _____, (Date) _____, have read, understood and accepted the terms of this agreement.

Recommendations and Observations

PRELIMINARY INSPECTION \ Final Conclusions

Condition: • Fungal growth was identified on pipe insulation in the tunnel near the boiler room although most of the insulation was not impacted.

No fungal growth was observed in the tunnels accessed from the Custodial Room, Room 105 and 106, and the Work Room and Office.

Nordic Environmental highly recommends taking action to prevent or limit moisture/water and fungal growth in the tunnels for the future. It is crucial to ensure proper drainage along the schools foundation and install long extensions on all downspouts.

Furthermore, a permanent solution for discharging water from the tunnels needs to be established (e.g., a permanent discharge pipe shall be installed through the concrete floor and discharged through the exterior wall).

In addition, when replacing the pipe insulation we do not recommend using fiberglass with paper jacketing as the paper is a great food source for fungal growth. Other options such as PVC jacketing should be explored.

It should also be considered to install hygrometers in the tunnels so temperature and humidity levels can be monitored.

Fungal growth shall be removed by following the recommendations in this report.

VISUAL INSPECTION \ Observations

Condition: • Suspected fungal growth observed

Location: Tunnel Near Boiler Room



MOLD

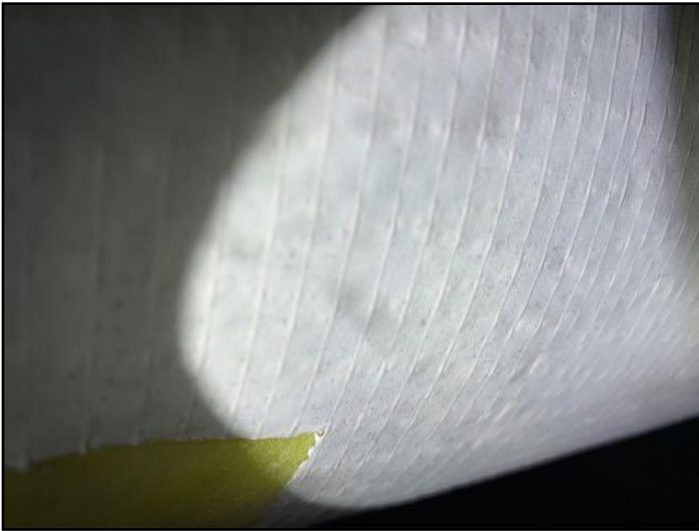
809 22nd Ave South, Grand Forks, ND January 14, 2020

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APPENDIX



Condition: • No fungal growth observed

Location: Tunnel Near Custodial Room



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Condition: • No fungal growth observed

Location: Tunnel Near Room 105 and 106



Condition: • No fungal growth observed

Location: Tunnel Near Work Room and Office

**SAMPLING \ Chain of Custody**

Condition: • See Appendix

SAMPLING \ Laboratory Results

Condition: • See Appendix

SAMPLING \ Interpretations

Condition: • Aspergillus/Penicillium and Cladosporium was identified on the pipe inspection in the tunnels accessed from the Boiler Room

MOLD REMEDIATION \ Construct Containment

Condition: • Containment shall be established at the tunnel access door.

Location: Boiler Room

MOLD REMEDIATION \ Engineering Controls

Condition: • The buildings air handling system shall be turned off during the mold remediation process. Contractor shall attempt to create a negative pressure in the tunnels at all times. If negative air cannot be maintained, additional air scrubbers shall be used.

Condition: • Air scrubbers with HEPA filters shall be operating in the affected areas.

MOLD REMEDIATION \ Cleaning/Removal of Mold

Condition: • Contractor shall remove pipe insulation impacted by or suspected to be impacted by fungal growth.

MOLD REMEDIATION \ Material Removal Procedures

Condition: • All removed pipe insulation must be bagged in 6-mil or greater bags. The exterior of the bag shall be wiped down and HEPA vacuumed before being removed from the tunnels. Contractor is responsible for the safe disposal of mold and other construction debris.

MOLD REMEDIATION \ Final Polishing

Condition: • Upon completion of removing and cleaning all impacted pipe insulation, the tunnels shall be cleaned. It is recommended to HEPA vacuum all surfaces.

DEFINITIONS \ Report Definitions**Condition:** • Containment or a Critical Barrier.

Typically established with the use of heavy plastic. The main goal when creating this physical barrier is to completely isolate the work area from any adjacent, non-affected areas. For example, if mold is present in one room of your home and the adjacent areas have not been affected, the room must be isolated. Depending on the layout, the doorway would be completely sealed with plastic. All HVAC systems or shared airways between other rooms would be taped or covered in plastic. In essence, any area that could allow air communication between the work area and other non-affected areas should be properly sealed.

Condition: • Air Filtration Device/Air Scrubber.

An air scrubber is a portable filtration system that removes particles, gasses, and/or chemicals from the air within a given area. These machines draw air in from the surrounding environment and pass it through a series of filters to remove contaminants. The size and complexity of an air scrubber system will depend on the size of the space being serviced, as well as the range, type, and size of contaminants that must be removed from the area.

Air scrubbers are especially important on restoration jobs where airborne contaminants are present or will be created/disturbed during the restoration process, such as mold, dust, asbestos, lead, chemical fumes, etc. These hazardous particles can settle on carpet, upholstery, and furnishings, or be drawn into the HVAC system and contaminate other parts of a building.

If these contaminants are not removed, they will have a negative effect on the indoor air quality (IAQ) of the worksite. While naturally occurring particles, such as human skin cells, animal hair, and dirt, are nearly always present, toxic gases released by sewage-borne bacteria and mold spores can cause adverse human health effects when inhaled. In short, these contaminants can compromise the quality of the entire restoration job.

Condition: • HEPA vacuuming.

HEPA is a type of filter attached to a vacuum that can trap a large number of very small particles that other vacuum cleaners would simply recirculate back into the air of your home.

FUNGAL INFO \ Explanation**Condition:** • Aspergillus

(Hyphomycetes) Teleomorph: Emericella (Ascomycetes), Eurotium (Ascomycetes) Found in soil, compost piles, decaying vegetation, stored grain, and other kinds of organic matter. Can be found indoors in water-damaged buildings. A few species can cause aspergillosis in humans with compromised or defective immune systems. Most people are naturally immune to this infection of the lung. Aspergillus fumigatus is the most common cause of aspergillosis, followed by A. flavus and A. niger. Some species are able to produce mycotoxins, depending on the strain, substrate, and/or food source. Other species are used in the manufacture of food, such as A. oryzae or A. soyae for soy sauce.

Condition: • Cladosporium

(Hyphomycetes) Teleomorph: Mycosphaerella (Ascomycetes) Widely distributed as plant pathogens and saprobes. It is the most frequently found fungus in outdoor air. Indoors, it usually occurs at low concentrations in damp or humid areas but may be found in high concentrations in waterdamaged building materials. Its ability to sporulate heavily and to get airborne makes it an important fungal allergen. Frequently isolated as a contaminant in foods. Only occasionally associated with disease in humans; one species can cause chronic subcutaneous infection.

Condition: • Penicillium

(Hyphomycetes) Many species are common contaminants on a variety of substrates. May be found indoors in air

samples, carpet dust, or on wallpaper. Some species are able to produce mycotoxins, as summarized below. Human pathogenic species are rare, only limited to *P. marneffeii*, which causes disease in immunocompromised individuals. Some species are used for commercial production, such as *P. chrysogenum* for the antibiotic penicillin, *P. griseofulvum* for the antibiotic griseofulvin, and *P. roquefortii* for blue cheese.

Description

Areas Inspected: • Tunnels specified by the schools custodian

Attendees: • School custodian

Occupancy: • Building was occupied

Building type: • Public school

Approximate age of building: • 55-60 years

Structure: • Masonry block foundation

HVAC system: • Hot water radiant

Inspection conducted by: • Lars Knobloch, Certified Indoor Environmentalist (CIE)

Inspection authorized by: • Chris Arnold. Mr. Arnold is the Director of Buildings and Grounds at Grand Forks Public Schools

Scope of work: • Inspecting tunnels specified by the schools custodian to determine if pipe insulation is impacted by fungal growth

Background: • . When interviewed about the conditions in question

Note: The schools custodian reported that there has never been water in the tunnels to his knowledge

Sampling Methodology: • .

TAPE LIFT SAMPLE:

These samples could be collected using clear adhesive tape or an adhesive slide for microscopic examination of suspect stains, settled dust and spores. Tape lifts are an excellent, non-destructive method of sampling. The laboratory is usually able to determine if there is mold growth, a high concentration of settled spores, or just a normal background level.

Inspection Methods and Limitations

Statement of Limitations: • .

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Currently there are no Federal regulations for evaluating potential health effects of fungal contamination. This information is subject to change as more information regarding fungal contaminants becomes available. This document was designed to follow currently known industry guidelines for the interpretation of microbial sampling, analysis and remediation. Since interpretation of mold analysis report is scientific work in progress, it may as such be changed without notice.

This Mold Testing Report prepared by Nordic Environmental is based on information supplied by the client and on conditions readily observable or measurable on the date of this study. Any inspection and/or testing conducted by Nordic Environmental are not meant to determine whether a building is safe or unsafe for occupants in regard to indoor air quality.

Indoor building conditions vary constantly, therefore the findings and results presented in this report should be considered relative to and representative of the conditions that existed at the time of the inspection and testing. The results and recommendations presented herein should not be relied upon exclusively for the prevention of all possible, injuries or losses. These services are a supplement to, and not a substitute for, the clients responsibility for protecting the health and safety of employees, students, residents and others and for complying with applicable laws and regulations. Nordic Environmental warrants that its work is performed in a competent and professional manner. No other warranties are expressed or implied.

END OF REPORT

APPENDIX

809 22nd Ave South, Grand Forks, ND January 14, 2020

Report No. 6906

www.nordiccompaniesinc.com

MOLD

APPENDIX

OrderID: 162000966



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

162000966
EMSL Order Number (Lab Use Only)

EMSL ANALYTICAL, INC.
14375 23RD AVE NORTH
MINNEAPOLIS, MN 55447
PHONE: (763) 449-4922
FAX: (763) 449-4924

Company : Nordic Companies		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different please note in Comments**			
Street: 3628 Pierce Street S		Third Party Billing requires written authorization from third party			
City: Fargo	State/Province: ND	Zip/Postal Code: 58104	Country: USA		
Report To (Name): Lars Knobloch		Fax #:			
Telephone #: 701-566-1446		E-mail Address: lars@nordiccompaniesinc.com; miranda@nordiccompaniesinc.com			
Project Name/ Number: VIKING ELEMENTARY					
Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> E-mail		PO#	State Samples Taken:		
Turnaround Time (TAT) Options* - Please Check					
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input checked="" type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour	<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour
		<input type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week		
*Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements					
Non Culturable Air Samples (Spore Traps)					
<ul style="list-style-type: none"> M001 Air-O-Cell M049 BioSis M030 Micro 5 		<ul style="list-style-type: none"> M173 Allegro M2 M003 Burkard M174 MoldSnap 		<ul style="list-style-type: none"> M004 Allergenco M043 Cyclax M176 Relle Smart 	
		<ul style="list-style-type: none"> M032 Allergenco-D M002 Cyclax-d M130 Via-Cell 		<ul style="list-style-type: none"> M172 Versa Trap 	
Other Microbiology Test Codes					
<ul style="list-style-type: none"> M041 Fungal Direct Examination M005 Viable Fungi ID and Count M006 Viable Fungi ID and Count (Speciation) M007 Culturable Fungi M008 Culturable Fungi (Speciation) M009 Gram Stain Culturable Bacteria M010 Bacterial Count and ID - 3 Most Prominent M011 Bacterial Count and ID - 5 Most Prominent M013 Sewage Contamination in Buildings 		<ul style="list-style-type: none"> M014 Endotoxin Analysis M015 Heterotrophic Plate Count M180 Real Time Q-PCR-ERMI 36 Panel M018 Total Coliform (Membrane Filtration) M020 Fecal Streptococcus (Membrane Filtration) M210-215 Legionella Detection M026 Recreational Water Screen M027 Mycotoxin Analysis 		<ul style="list-style-type: none"> M029 Enterococci M019 Fecal Coliform M133 MRSA Analysis M028 Cryptococcus neoformans Detection M120 Histoplasma capsulatum Detection M033-39 Allergen-Testing M044 Group Allergen (Cat, Dog, Cockroach, Dustmites) Other See Analytical Price Guide 	
Preservation Method (Water):					
Name of Sampler: Lars Knobloch			Signature of Sampler:		
Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
001	PIPE INSULATION NEAR BOILER ROOM	BULK	M041		1/14/20 12pm
002	PIPE INSULATION NEAR BOILER ROOM	BULK	M041		1/14/20 12pm
RECEIVED EMSL ANALYTICAL, INC. MINNEAPOLIS, MN 2/20 JAN 16 A 9:10					
Client Sample # (s):		Total # of Samples: 2			
Relinquished (Client):		Date: 1/14/20	Time:		
Received (Client):		Date: 1/16/2020	Time:		
Comments:					

Controlled Document - Microbiology COC - R2 - 1/12/2010

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809 22nd Ave South, Grand Forks, ND January 14, 2020

Report No. 6906

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EMSL Analytical, Inc.

6340 CastlePlace Dr. Indianapolis, IN 46250
Phone/Fax: (317) 803-2997 / (317) 803-3047
<http://www.EMSL.com> / indianapolislaboratory@emsl.com

Order ID: 162000966
Customer ID: NORD25
Customer PO:
Project ID:

Attn: Lars Knobloch
Nordic Environmental
3628 Pierce St. South
Fargo, ND 58104
Phone: (701) 566-3257
Fax:
Collected: 01/14/2020
Received: 01/16/2020
Analyzed: 01/17/2020

Proj: VIKING ELEMENTARY

Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Bulk Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number	Client Sample ID	Location	Fungal Identification	Category
162000966-0001	001	PIPE INSULATION NEAR BOILER ROOM	Aspergillus/Penicillium	Low
			Cladosporium	Medium
162000966-0002	002	PIPE INSULATION NEAR BOILER ROOM	Aspergillus/Penicillium	Low
			Cladosporium	Medium

No discernable field blank was submitted with this group of samples.

Bipolaris++ = Bipolaris/Dreschlera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut
* = Sample contains fruiting structures and/or hyphae associated with the spores.
- Denotes Not Detected

Category	Count/area Analyzed
Rare	1 to 10
Low	11 to 100
Medium	101 to 1000
High	> 1000

Nathan Husted, Microbiology Lab Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the result, it will be noted on the report.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN AIHA-LAP, LLC--EMLAP Accredited #157245

Initial report from: 01/17/2020 10:30:30

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com

Test Report DEVER2-7.50.2 Printed: 1/17/2020 10:30:30AM

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