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July 7, 2020

Ms. Mary Adams Lines
Town of Londonderry
100 Old School Street
South Londonderry, VT 05155

RE: Mold Indoor Air Quality Assessment –
Old Londonderry Town Hall, 139 Middletown Road, Londonderry, VT 05148

(Sent via email to line2lines@aol.com)

Dear Ms. Lines:

KAS, Inc. (KAS) conducted an indoor air quality assessment at the Old Londonderry Town Hall located at 139 Middletown Road, Londonderry, Vermont (Site) on June 18, 2020. The assessment included the collection of mold samples from within the building. The indoor air quality assessment was conducted in order to assess the potential for mold to be present within indoor air inside the building.

During the June 18, 2020 assessment the building was unoccupied and no heating or cooling system was in operation. No windows or doors were observed to be open.

Below is the sampling methodology used to collect the mold samples within the building. All samples were collected by KAS on June 18, 2020 between 09:00 and 10:30 am.

Mold Sampling Methodology

Prior to sampling, a visual inspection of the building was conducted for mold. Black mold growth was noted on the ceiling within the basement space and a strong musty odor was noted within this area. Temperature and relative humidity measurements were taken from the sample areas using a Extech Hygro-Thermometer pen in accordance with the manufacturer’s instructions (Table 1).

Table 1: Temperature and humidity measurements on June 18, 2020

Location	Temperature	Relative Humidity (rH)
Basement	57.7 °F	68.9%
1 st Floor	63.5 °F	58.3%
2 nd Floor Stairwell	62.7 °F	65.8%
Outside	80.4 °F	45.7%

Mold samples were collected from the four areas listed above by use of an Air-O-Cell spore trap cassette and a Bio Pump Plus air pump. The cassettes were run at 15 liters per minute (lpm) for ten minutes. The pump was checked in the field with a rotameter prior to use in order to confirm the flow rate. One field blank was submitted with the samples for quality assurance and control measures. All five Air-O-Cell cassettes were subsequently analyzed by ESML Analytical, Inc. of



Cinnaminson, NJ for non-viable mold total spore count (basement, 1st floor, 2nd floor, outside and field blank).

Analytical Results

Below are the results of the mold sampling conducted on June 18, 2020 (Table 2).

Table 2. Mold results June 18, 2020

Location	Result (total count/m ³)
Basement	12,177
1 st Floor	4,060
2 nd Floor Stirwell	2,560
Outside	7,427
Field Blank	0

Based on the results, a higher count of mold was reported in the basement space as compared to the other interior spaces. Using the outside sample as a background level, the reported mold levels in the basement were higher than that reported outside.

Conclusions and Recommendations

Visible mold was observed on the ceiling of the basement along with elevated relative humidity readings (>60% rH). Air samples were collected in the basement as well as the first and second floors and outside for comparison. Regulatory standards for airborne mold spores do not exist per se; as such, a comparative analysis of airborne mold spores in an impacted area (basement) are compared to unimpacted areas (first and second floors) and outside. The total mold spores of airborne spores in the basement air samples is an order of magnitude greater than in the air samples collected on the first floor, second floor and outside. Additionally, the most prevalent mold spore types in the basement are aspergillus/penicillium and cladosporium, which are common indoor mold types, versus the most prevalent mold spore type of basidiospores, a common outdoor mold, in the first floor, second floor and outdoor air samples.

Based on the visual observations, field measurements and air sample results, remedial action of the visible mold in the basement is recommended. Remediation of the mold can be achieved by either removing the building material exhibiting mold growth (generally 12 inches beyond last visible evidence) or cleaning/disinfecting the building material with an EPA-approved disinfectant until no visible evidence of the mold remains. It is recommended that the basement be isolated from the remainder of the building with the use of a poly containment with weighted flaps or a zippered entrance. Any building materials exhibiting mold growth leaving the basement should be placed in sealed bags to prevent cross-contamination of unimpacted areas. Following completion of the removal/cleaning/disinfection, the basement should be thoroughly cleaned with wet wiping and/or HEPA vacuuming of surfaces to remove any residual fugitive mold spores. Additionally, as the underlying cause (source of moisture) appears to be elevated relative humidity, KAS recommends that a dehumidifier be installed in the basement to maintain relative humidity below 60% rH as recommended by EPA.



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Please feel free to contact me with any questions you may have regarding this report.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Roberts". The signature is fluid and cursive, with a large initial "J" and "R".

Jeremy Roberts, P.G.
Principal/Environmental Program Manager

Enc/ cc: KAS #306200347



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Microbiology 'MoldView' Chain of Custody

EMSL Order Number (Lab Use Only):

372009423

RECEIVED
EMSL
CINNAMON N.J.
PHONE:
FAX:
20 JUN 23 AM 11:01

Company: KAS, Inc.

Street: 589 Avenue D, Suite 15

City: Williston State/Province: VT Zip/Postal Code: 05495 Country: USA

Report To (Name): Jeremy Roberts Fax #: 802-383-0490

Telephone #: 802-383-0490 E-mail Address: Jeremy.R@Kas-consulting.com

Project Name/ Number: Laundry Tower Hall / #306200347

Please Provide Results: Fax E-mail PO# State Samples Taken: Vermont

EMSL-Bill to: Same Different
If Bill to is Different please note in Comments**

Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* - Please Check

3 Hours 6 Hours 24 Hours 48 Hours 3 Days 4 Days 1 Week 2 Week

*Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements



Name of Sampler: Jeremy Roberts Signature of Sampler: [Signature]

ID #	Sample Location	M165 MoldView (Air Only)	M041 (Tape, Bulk, Swab)	Volume/Area	Date/Time Collected
6628	Basement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	150L	6/18/2020 9:29
6639	First Floor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	150L	" 936
6623	2nd Floor Stairwell	<input checked="" type="checkbox"/>	<input type="checkbox"/>	150L	" 951
6618	Outside	<input checked="" type="checkbox"/>	<input type="checkbox"/>	150L	" 1015
6632	Blank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	—	" —
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Client Sample # (s): 1 - 5 Total # of Samples: 5

Relinquished (Client): [Signature] Date: 6/18/2020 Time: 14:47

Received (Laboratory): [Signature] Date: 6/23/20 Time: 10¹⁰

Comments: 1ZEF1 850 03 0739 7297