



February 24, 2025

Ms. Erin Obey
Superintendent of Schools
Pembroke Public Schools
72 Pilgrim Road
Pembroke, MA 02339

RE: General Microbial (Mold) Assessment Report for
Pembroke High School
80 Leaning Lanes, Pembroke, MA
PMEC Project #25-113

Dear Ms. Obey:

Paul Matuszko Environmental Consulting (PMEC) is pleased to submit this letter report for the general limited microbial (mold/fungal) assessment conducted within the Pembroke High School. The limited microbial assessment was conducted by PMEC Principal, Paul Matuszko, CIH on February 7, 2025 (after school hours). PMEC was accompanied during the assessment with representatives of the Pembroke Superintendents Office (Ms. Erin Obey) and the Pembroke Teachers Association (union). The assessment was limited to inspecting designated areas and surfaces for the potential presence of microbial growth as requested by the Pembroke Teachers Union. No microbial sampling was conducted by PMEC during the visual assessment. A summary of the assessment findings are provided as follows:

1.0 Scope of Work

- A. The assessment was conducted within the following locations:
 - 1. Room A173 – open classroom and kitchen
 - 2. Art Room B245 (classrooms and storage)
- B. PMEC assessed the rooms for water damage, staining, suspect microbial (mold) growth, and general housekeeping issues. PMEC deemed microbial sampling to unnecessary during the visual assessment. PMEC focused on determining sources for areas of concern and applicable recommended response actions.
- C. Photographs were collected in areas of concern and are provided in Attachment A.

2.0 Summary Discussion

2.1 Room A173

- A. Classroom:
 - 1. Existing Conditions:
 - The classroom at the back right side wall contains water stained and missing ceiling tiles. The tiles are currently dry with no visible active mold growth. Water piping above the ceiling tile rises up through the corrugated steel deck to a pipe chase on the floor above. The piping and openings in the steel decking has allowed a condition which promotes condensation dripping onto surfaces, including ceiling tiles, below the chase openings.
 - 2. Recommendations:
 - Seal openings in the corrugated steel deck with an approved fire retardant material (ex. spray foam, etc.).
 - Ensure piping is properly insulated with no openings in the vapor barrier (insulation, tape, etc.)
 - Replace missing and stained ceiling tiles.
 - Monitor area during the cooling season for additional condensation issues.

B. Kitchen:

1. Existing Conditions:

- PMEC did not identify any suspect mold growth on exposed surfaces. The ceramic tile above the sink, wallboard below the sink, and wallboard around the refrigerator did not exhibit any suspect mold growth. The exhaust fan was not operating but the system schedule operation was not confirmed. Minor dirt and water stains (splashing) may exist around and under the sink.

2. Recommendations:

- Ensure the HVAC supply and exhaust systems are properly operating to provide proper ventilation.
- Clean and disinfect (wet-wipe) surfaces of concern, including back splashes and walls, on a regular (weekly) basis.

2.2 Art Room B245

A. HVAC systems

1. Existing Conditions:

- Ceiling level supply and return diffusers in the classrooms and kiln room show a minor buildup of settled dust. No visible mold growth (spotting) was observed on the metal diffusers.
- The main storage room HVAC supply diffuser was recently cleaned.

2. Recommendations:

- Clean and disinfect ceiling level HVAC diffusers free of dust and debris.
- Ensure the HVAC system is operating as designed to supply sufficient adequate supply and exhaust ventilation. Operate the HVAC system for a longer period of time during the summer and fall seasons to remove excess humidity.

B. Middle Kiln Room:

1. Existing Conditions:

- Stained ceiling tiles exist in the back middle side. No current water leaks or visible mold were present. The ceiling plenum above the stained ceiling tiles was not accessed due to stored items to determine potential sources of the water staining.

2. Recommendations:

- Investigate source of water leaks (condensation, poorly insulated piping, etc.) and correct as needed.
- Replace stained ceiling tiles.
- Monitor area for future water staining.

C. 1st Art Classroom:

1. Existing Conditions:

- Visible mold growth was observed on the following surfaces:
 - Small paint pail and small wooden storage box
 - Small individual plastic paint trays
 - Ceramic/clay tiles
- Items containing visible mold growth are (or may be) stored in wood storage cabinets. The moisture within the paint as well as potential humid conditions within the enclosed unventilated cabinet(s) allow for condensation and mold growth. Ceramic tile may absorb moisture and allow for mold growth on tiles. Dusty, dirty tiles will act as a food source to allow for mold growth.
- Items containing suspect mold within the classroom(s) may result from increased room humidity, increased moisture from the paint and residual water (post cleaning) which allows for mold growth.

- The teacher stated that an unopened paint pail was observed to contain suspect mold growth upon opening the pail cover seal. The paint from this pail was still used going forward.
3. Recommendations:
- Items stored in enclosed cabinets should be thoroughly cleaned and dried to reduce moisture and humidity levels prior to storage in the cabinets.
 - Ceramic/clay tiles should be dry and clean prior to storage.
 - Cabinets may require ventilation to prevent high humidity conditions during the summer and fall seasons. Cabinets doors should be opened on a regular basis to allow air to mix with existing room air. Keep doors open during the summer season during periods of limited use.
 - Air diffuser vents may be cut into the cabinet doors to allow for additional interior cabinet ventilation. This will allow for cabinets to mix with room air.
 - Items containing any suspect mold should be placed in sealed bags and discarded upon discovery.
 - Utilize clean, dry plastic trays and containers where possible.
 - Monitor conditions and materials for future mold growth.

3.0 Recommendations

- A. PMEC recommends initially investigating and correcting conditions above the stained ceiling tiles to the fullest extent possible. This may include repairing vapor barrier breaks in fiberglass insulation, added insulation, etc. Equipment and openings in metal covers, etc. may require repair and sealing.
- B. Stained and missing ceiling tiles should be replaced after ceiling plenum (piping, HVAC) repairs are completed. New water stains should be regularly investigated and tiles replaced on an on-going basis.

4.0 Limitations

- A. The assessment provided herein is based on the professional judgment of PMEC using approved industry standards and guidelines. Assessment findings are based on the investigator's careful consideration of field observations and interpretation of analysis results (if conducted) in accordance with industry standards. The results are only representative of the conditions of the date and time of the visual inspection.

Should you have any additional questions regarding this assessment report or the results, please do not hesitate to contact me at 617-893-4476 or email at pmatuszko@pmecsolutions.com. PMEC appreciates the opportunity to provide our services to Pembroke Public Schools.

Respectively submitted,



Paul Matuszko, CIH, CIEC
Project Manager/Principal



CIH #CP7236 - Certified Industrial Hygienist (American Board of Industrial Hygiene)

CIEC #0610006 - Certified Indoor Environmental Consultant (American Council for Accredited Certification)

Attachments:

Attachment A - Sample Photographs (2 pages)



Photo 1: View of Room A173 ceiling plenum above stained tiles. Opening in steel decking above water and drain piping may allow for condensation dripping.



Photo 2: View of missing/stained ceiling tiles in Room A173 below pipe chase.



Photo 3: View of A173 kitchen at sink. No visible mold growth on ceramic tile and backsplash.



Photo 4: View under sink at A173 kitchen. No visible mold growth present on lower wall. Regular general housekeeping cleaning recommended.

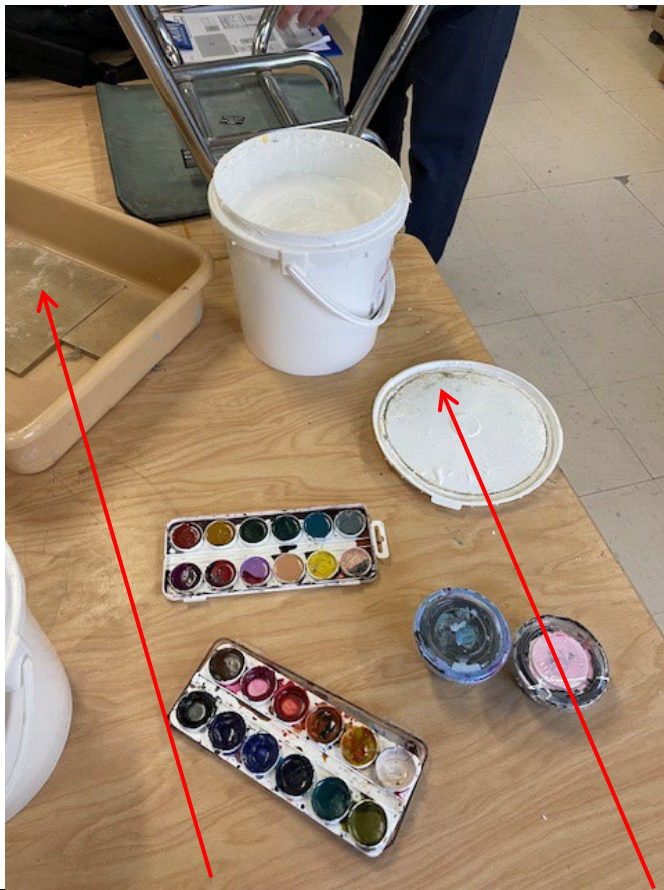


Photo 5: Art Room B245: View of containers, trays, and tiles with visible mold growth.



Photo 6: View of Art Room middle Kiln Room: Stained ceiling tiles present. Investigate plenum above and replace tiles.



Photo 7: View of A173 Storage room. Ceiling level supply diffuser recently cleaned.