

Hazardous Materials Survey Report
4440 Valley Rd.
Victoria, BC

Project - 22645



AREC Environmental Group, Ltd.
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HAZARDOUS MATERIAL SURVEY REPORT



Firehall Located at 4440 Valley Rd., Victoria, BC

*WorkSafeBC regulation section 20.112(b) requires that this report be on site during any work or demolition.

Hazardous Materials Survey Report
4440 Valley Rd., Victoria, BC



Project – 22645

April 22, 2022

Attention: Mike Hornick
True Line Contracting
250-812-7236
mhornick@truelinecontracting.ca

Reference: Hazardous Materials Survey of 4440 Valley Rd., Victoria, BC

AREC Environmental Group, Ltd. has completed a pre-demolition survey of the firehall located at 4440 Valley Rd., Victoria, BC. The purpose of this survey was to document the presence of hazardous materials, including asbestos, silica, hantavirus, lead, or other heavy metal or toxic, flammable or explosive materials that may be handled, disturbed or removed throughout the building for the purpose of future demolition, as required per *WorkSafeBC OHS Regulation Part 20*. The site investigation was conducted on April 13, 2022, and we report the following:

SITE DESCRIPTION

This is a two-storey firehall; **the truck bay is not included in this investigation**. The interior walls are drywall, concrete block, and wood panel. Ceilings are drywall, ceiling tile, and concrete. Floors are carpet, laminate, concrete, vinyl floor tile, and sheet vinyl flooring. Heat is provided by natural gas HVAC; no suspect asbestos containing duct tape or vent felt was observed. The building does not contain an attic. The exterior of the building is painted block and Hardie siding, with composite shingle, torchon tar membrane, and tar & gravel roofing. **Torchon membrane roofing was not sampled to maintain the integrity of the roof – sampling of this material must be completed prior to demolition. Vermiculite was not observed but may be present within block walls.**

SCOPE OF PROJECT

The survey conducted by AREC Environmental on April 13, 2022, was limited to materials suspected to be hazardous that will be disturbed or removed during the proposed demolition, including:

- **asbestos** – (page 2)
- **lead paint** – (page 3)
- **polychlorinated biphenyls (PCB)** – (page 5)
- **mercury** – (page 6)
- **ozone depleting substances (ODS)** – (page 6)
- **radioactive materials** – (page 6)
- **oil storage tank** – (page 6)
- **silica** – (page 6)
- **flammable/chemical materials** – (page 7)
- **hantavirus** – (page 7)
- **other concerns** – (page 7)
- **limitations** – (page 8)

ASBESTOS

Methodology

A total of thirty-four (34) bulk samples (including layers) suspected of containing asbestos were collected. These samples were analyzed at AREC Laboratories in accordance with the following method:

-Test Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116, dated July 1993) published by the United States Environmental Protection Agency; **and/or**

-Vermiculite insulation that would be determined to contain **any** asbestos if tested in accordance with the Research Method for Sampling and Analysis of Fibrous Amphibole in Vermiculite Attic Insulation EPA/600/R-04/004, dated January 2004

Results

NO asbestos was detected in the materials tested for this report.

Detailed sampling analyses are attached at the end of this report.

WHAT IS ASBESTOS?

Asbestos is a fibrous material used in many products because it adds strength, heat-resistance, and chemical-resistance. Despite its many uses, asbestos is a hazardous material. Three types of asbestos have been used commercially:

- Chrysotile (white asbestos) is the most commonly used form of asbestos.
- Amosite (brown asbestos) has been used in sprayed coatings, in heat insulation products, and in asbestos cement products where greater structural strength is required.
- Crocidolite (blue asbestos) is no longer used in B.C. and is rarely found. Before 1973 it was commonly used in sprayed coatings on structural steelwork for fire protection and for heat or noise insulation. It was also used in gasket materials and asbestos cement pipe.

Other types of asbestos are actinolite, anthophyllite, and tremolite. These usually have had little commercial value or use.

Asbestos Containing Materials (ACM) is often referred to as friable and non-friable. Friable materials are materials that, when dry, can be easily crumbled or powdered by hand. This term may also refer to materials that are already crumbled and powdered. Some non-friable materials, such as vinyl-asbestos floor tile or asbestos cement products have the potential to become friable if they are disturbed and/or handled in an aggressive manner (for example, sanded with a power sander).

POTENTIAL HEALTH EFFECTS OF ASBESTOS

Asbestos has been recognized as a health hazard for people employed in its production and processing for centuries. However, it was not until the late nineteenth century and the onset of the Industrial Revolution that its use became widespread, and it was not until the early part of the twentieth century that the relationship between the use of asbestos and a variety of health effects became a source of concern to the medical profession.

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Many serious, debilitating and often fatal diseases have been linked to the inhalation of asbestos fibers. Although the mechanism of asbestos related diseases is still not fully understood, it is known that there is normally a significant latency period between the time of exposure and the occurrence of disease. This latency period can typically be between ten to over forty years.

Asbestosis, mesothelioma and lung cancer are the diseases most commonly associated with asbestos exposure, although several other diseases have also been linked to asbestos exposure. Asbestosis is a chronic lung disease resulting from prolonged exposure to asbestos dust. The fibers gradually cause the lung to become scarred and stiff, making breathing difficult. Asbestosis is a progressive disease, meaning that scars keep forming in the lungs after the exposure to asbestos has stopped.

Lung cancer may be caused by asbestos fibers in the lung. No one knows exactly how asbestos causes lung cancer. Researchers have shown, however, that the combination of smoking tobacco and inhaling asbestos fibers greatly increases the risk of lung cancer. Again, asbestos may be one of many causes of lung cancer.

Mesothelioma is a rare but very malignant form of cancer affecting the lining of the chest or the abdominal cavity. This cancer spreads rapidly and is always fatal. The exact mechanism of the disease is unknown. There is a confirmed link between asbestos exposure and mesothelioma.

LEAD PAINT

Methodology

A total of two (2) paint samples suspected of containing lead were collected by scraping the indicated surfaces. These samples were analyzed at International Asbestos Testing Laboratories (IATL) in accordance with the following method:

-Test Method for the determination of lead in paint by weight (Paint by AAS: ASTM D3335-85A, 2009)

Results

A summary of lead in paint results is given in Table 1.

Table 1: Lead Paint Results

Sample No.	Location	Material	wt%	ppm
LP-1	Interior Walls & Trim	Multi-Coloured Paint	<0.0077	<77
LP-2	Exterior Stucco & Trim	Multi-Coloured Paint	1.7	17,000

One (1) of the paint samples contains enough lead to be considered a lead-based surface coating.

In Canada, under the *Hazardous Products Act*, a paint or similar material that dries to a solid film and contains greater than 90 mg/kg or 0.009% dry weight of lead is considered to be a lead-containing surfacing coating material. WorkSafeBC cites that the improper removal of lead paint containing 600 mg/kg or 0.06% lead results in airborne concentrations that exceed half of the exposure limit. Lead concentrations as low as 90 mg/kg may present a risk to pregnant women and children.

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WorkSafeBC requires that worker exposure to airborne lead be kept below 0.05 mg/m³. Lead is also likely present as solder on plumbing systems and may be present on other fixtures such as flashings or roof vents. Precautions must be put in place during demolition and renovation activities to ensure that workers are not exposed to lead containing dust and debris. Flashings can be removed and recycled.

RISK ASSESSMENT FOR HANDLING LEAD PAINT

Procedures will vary depending on the nature of the work and may be dictated by the pending lead leachability results (see highlighted section below), but in general terms:

Operating an excavator (within the cab) during demolition of the house is considered a **low risk activity**.

Employers are required to have an exposure control plan if their employees will be working with lead containing materials. In order to control worker exposure to lead paint particulate, any cutting, burning, grinding, sanding or other disturbance of identified lead painted surfaces should be conducted following appropriate safe work procedures. Procedures will vary depending on the nature of the work but should consider the following:

- NOP for work involving significant disturbance of lead containing paint submitted to WorkSafeBC a minimum of 48 hours prior to commencement of the work
- Half-face respirator with NIOSH P100 Series filters, protective clothing, gloves, and laceless rubber boots or other appropriate footwear designed to be easily decontaminated
- Isolation of the work area with warning signs and warning tape
- Use of drop sheets and tarps to prevent spread of lead-containing dust
- Use of a power tool with an effective dust collection system and HEPA filter
- Use of HEPA filter equipped vacuum cleaner
- Use wet methods (amended water saturation of the material being disturbed)
- Thorough washing before eating, drinking or smoking

LEACHABILITY

Under the BC Hazardous Waste Regulation materials with lead paint concentrations over 0.01 wt% (100ppm) destined for disposal at a licensed landfill facility must be tested for leachability to determine if they should be handled as a hazardous waste. Consult the waste disposal facility for disposal requirements prior to disposal. Prior to demolition it is the responsibility of the client or the contractor to have samples collected by a qualified person and analyzed using the toxicity characteristic leachate procedure (TCLP).

POTENTIAL HEALTH EFFECTS OF LEAD

Workers can be exposed to lead through inhalation of fumes and dusts, as well as through ingestion as a result of lead-contaminated hands, food, drinks, cosmetics, tobacco products, and clothing. Furthermore, workers can take lead home on their clothes, skin, hair, tools, and in their vehicles, potentially exposing their families to harmful health effects.

It does not matter if a person breathes in, swallows, or absorbs lead particles, the health effects are the same; however, the body absorbs higher levels of lead when it is breathed in. Within our bodies, lead is absorbed and stored in our bones, blood, and tissues.

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Lead poisoning can happen if a person is exposed to very high levels of lead over a short period of time. When this happens, a person may feel:

- Abdominal pain
- Constipated
- Excessively tired
- Headache
- Irritable
- Loss of appetite
- Memory loss
- Pain or tingling in the hands and/or feet
- Weak

Because these symptoms may occur slowly or may be caused by other things, lead poisoning can be easily overlooked as their cause. Being exposed to high levels of lead may cause anemia, weakness, and kidney and brain damage. Very high lead exposure can cause death.

People with prolonged exposure to lead may also be at risk for high blood pressure, heart disease, kidney disease, and reduced fertility.

Most houses and buildings built before 1950 have had lead-based paint applied to the interior or exterior surfaces. In most cases, lead paint of this era contained up to 40% lead by weight. Paints made between 1950 and 1978 typically contained smaller quantities of lead.

POLYCHLORINATED BIPHENYLS (PCBs)

Fluorescent light ballasts were observed (see photos). These fixtures may contain PCB ballasts.

There are several methods that can be used to determine if ballasts contain PCBs:

- Ballasts that were manufactured without PCBs will have a very obvious “No PCBs” mark on the manufacturer’s label.
- Many manufacturers will imprint a manufacturing date on the ballast case. Any ballast with a manufacturing date prior to 1979 should be assumed to contain PCBs. This may lead to false positives, but it would eliminate the risk of downstream contamination. Date codes after July 1, 1980, can be considered to not contain PCBs.
- If the building was erected after July 1, 1980, there is a good chance that the light fixtures were manufactured after the legislative cut off for PCBs and therefore be PCB-free.

Unfortunately, after many years of exposure to heat, dust and other elements, the labels on old ballasts become illegible or are missing altogether. If PCBs cannot be ruled out based on the age of the building or lighting system as a whole, the prudent response would be to treat suspect ballasts as if they did contain PCBs. This is especially true if PCB ballasts have already been found in the facility.

Prior to disposal, ballasts should be stored in a safe and secure location for inspection to determine the presence or absence of PCB’s. Any PCB containing ballasts determined to be present must be stored in an approved storage facility or disposed of by a certified company that will accept ownership of the ballasts.

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MERCURY

Fluorescent tube lights were observed (see photos). Fluorescent bulbs are known to contain mercury.

OZONE DEPLETING SUBSTANCES (ODS)

A refrigerator and freezer were observed (see photos) – refrigerators made before 2005 may contain ODSs. ODSs such as chlorinated fluorocarbons (CFCs) were used in chemical fire suppression systems and refrigeration and air conditioning units. In the case of demolition, these ODSs will require proper recovery and disposal by a licenced contractor, in accordance with the BC Ozone-Depleting Substances Regulation.

RADIOACTIVE MATERIALS / SMOKE DETECTORS

Smoke detectors were observed (see photos). Smoke detectors often contain the radioactive material americium. These must be handled and disposed of in accordance with Canadian Nuclear Safety Commission (CNSC) regulations.

ABOVEGROUND / UNDERGROUND STORAGE TANKS

No aboveground oil storage tank was observed.

Should a tank be discovered, it must be safely moved prior to demolition, ensuring there are no spills. Evidence of leaks must be investigated and any potential contamination remediated. The Canadian Council of Ministers of the Environment (CCME) publishes a Code of Practise for the safe management of aboveground and underground storage tanks.

SILICA

Silica is the primary component of many construction materials, such as drywall, plasters, stuccos, mortars, grout, concrete and other similar materials. Silica is the second most common mineral on earth and makes up nearly all of what we call “sand” and “rock.” Silica exists in many forms – one of these, “crystalline” silica (including quartz) is the most abundant and poses the greatest concern for human health. Exposure to silica dust can cause a disabling, sometimes fatal disease called silicosis, after fine particles deposit in the lungs and cause permanent damage to lung tissue. Symptoms from exposure may not appear for many years.

Silica dust is created when silica containing materials are disturbed by cutting, grinding, blasting, sanding, drilling, chipping and/or other methods. Exposure Control Plans MUST be implemented when:

Situation 1.

Exposure monitoring indicates that a worker is or may be exposed to an air contaminant in excess of 50% of its exposure limit,

Situation 2.

Measurement is not possible at 50% of the applicable exposure limit

Situation 3.

Required by regulation

Situation 4.

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If a material has been identified with any of the following Notations and it can not be eliminated from the workplace:

- (a) ACGIH A1 or A2, or IARC 1, 2A or 2B carcinogen
- (b) ACGIH reproductive toxin – ACGIH uses the abbreviation “repro” in the “TLV Basis” column to identify these substances (WorkSafeBC identifies these substances with the letter “R”)
- (c) ACGIH sensitizer – ACGIH uses the notations, DSEN, RSEN and SEN (WorkSafeBC identifies these substances with the letter “S”)
- (d) ACGIH L endnote - The “L” endnote appears for some substances in the “TWA” column. “L” is defined as “exposure by all routes should be carefully controlled to levels as low as possible.” This notation is primarily for substances considered highly toxic, and which have not been assigned a TLV. Examples of substances in this category include benzo(α)pyrene, chrysene, and rosin core solder thermal decomposition products (colophony).

Part of this exposure control plan includes training for workers on the hazards of silica, respiratory protection, personal protective equipment, and methods to control silica dust such as dust suppression (“wet methods”), local exhaust ventilation, HEPA equipped tools or other controls that should be used to control silica dust.

FLAMMABLE / CHEMICAL MATERIALS

Ensure all flammable & chemical materials are removed from the site prior to demolition.

HANTAVIRUS

In Canada, the hantavirus is found only in wild mice, specifically the deer mouse (*Peromyscus maniculatus*). The mice shed the virus in their urine, droppings and saliva. The virus is mainly transmitted to people when they breathe in air contaminated with the virus. No rodent feces were observed.

OTHER CONCERNS

There may be additional hazardous materials in concealed and other inaccessible areas that can be disturbed during deconstruction. If any suspect materials are discovered, all work must cease immediately at that location until the material has been identified.

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LIMITATIONS

AREC Environmental was retained to perform a survey of hazardous building materials establishing types and locations. Approximate quantities indicated herein are provided for Client information only, and are not intended to provide exact amounts for tendering purposes.

This report is intended for the exclusive use of the *CLIENT* in order to identify all accessible asbestos-containing materials and other specified hazardous materials in the surveyed property. The use of this document for any other purpose is at the sole risk of the user.

The contents of this report were based on a site survey conducted by AREC Environmental. Please note that this survey was intended to identify the asbestos-containing materials and other specified hazardous materials on the subject site only prior to the proposed renovation/demolition of the structure surveyed.

The scope of work was limited to an assessment of readily accessible materials at the subject building defined by the Client as being impacted by planned demolition/renovation. No major destructive investigation was performed in areas with solid covering, or where there was no absolute access point. Should suspect materials be encountered during demolition activity, work is to stop immediately and the material be tested for the presence or absence of the hazardous substance.

In certain instances visual identification of material was made based on similar homogeneous characteristics to analyzed samples (i.e. vent packing felt material may be considered typical to each other).

This report is **not** intended for use as a scope of work for removal or as a specification section for inclusion in Tender Documents. Any unauthorized use of this report in that fashion is at the sole discretion and liability of the Owner.

We trust this is the information you require. Should you have any additional questions please contact our office or the undersigned at your convenience. Thank you for having AREC Environmental conduct this work on your behalf.

Sincerely,



Scott Conrad, General Manager



Athena Hall, AHERA Certified Building Inspector
#3509-20-C16-25264

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PHOTOS (sampled for asbestos)



Photo 1: Drywall Compound – Main Floor Stairs to Truck Bay (ND – none detected)

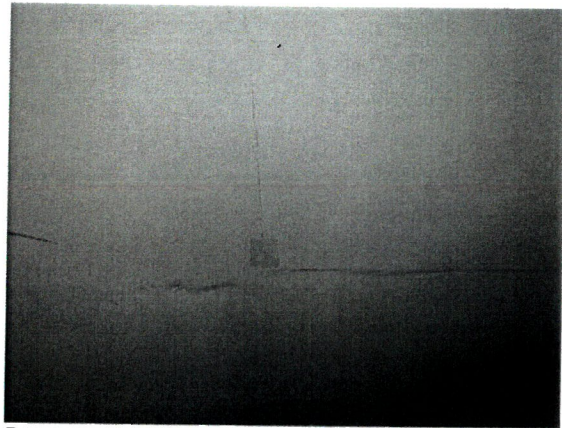


Photo 2: Drywall Compound – Gym (ND)

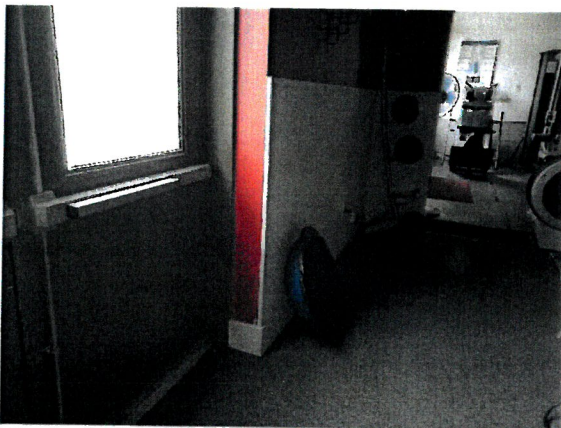


Photo 3: Drywall Compound – Sauna Room (ND)

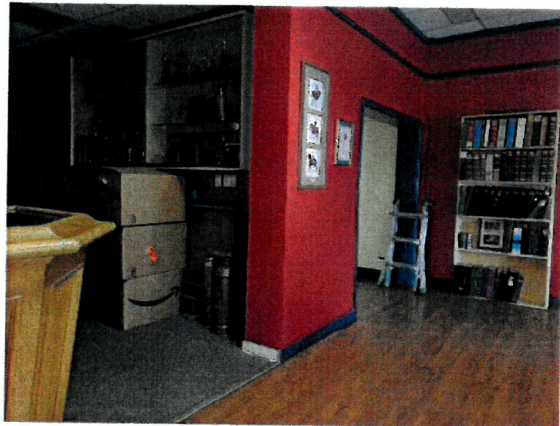


Photo 4: Drywall Compound – Reception Hallway (ND)

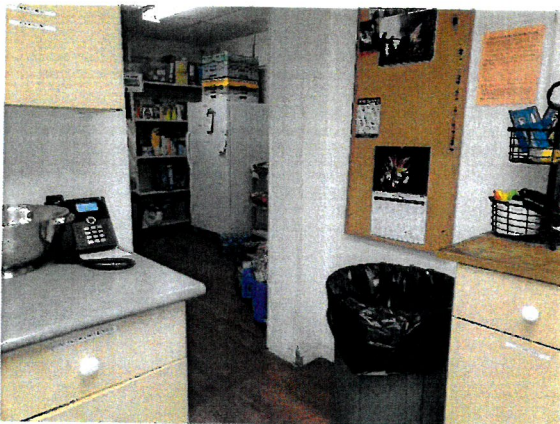


Photo 5: Drywall Compound – Kitchen (ND)



Photo 6: Drywall Compound – Stairs To 2nd (ND)

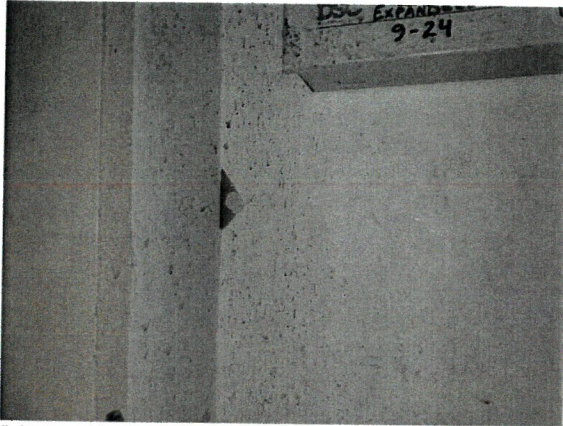


Photo 7: Drywall Compound – Cleaning Closet (ND)

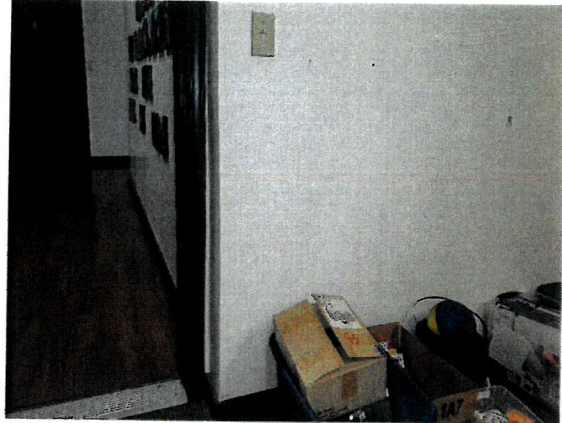


Photo 8: Drywall Compound – Training Room (ND)

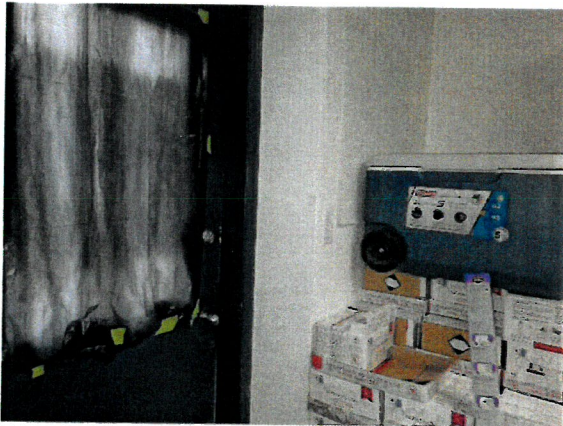


Photo 9: Drywall Compound – Storage/Training Room (ND)

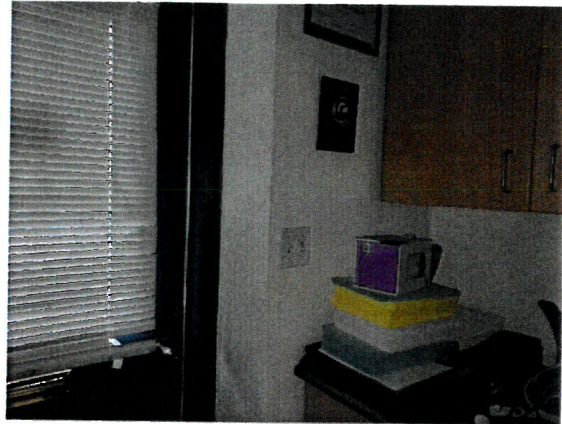


Photo 10: Drywall Compound – Chief Office (ND)

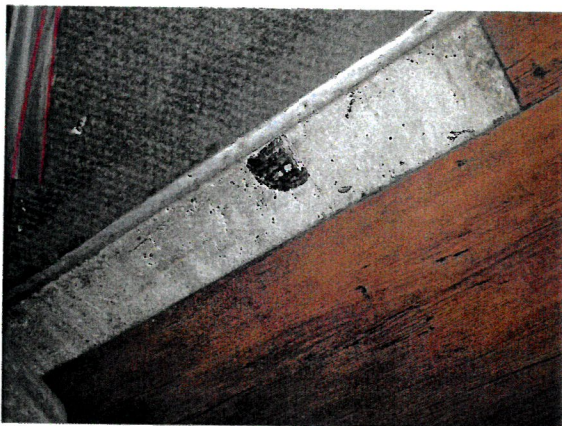


Photo 11: Vinyl Floor Tile – Banquet Hall Below Laminate (ND)



Photo 12: Vinyl Floor Tile – Kitchen Storage (ND)



Photo 13: Sheet Vinyl Flooring – Washroom (ND)



Photo 14: Sheet Vinyl Flooring – Cleaning Closet (ND)



Photo 15: Ceiling Tile – Throughout Main Floor (ND)

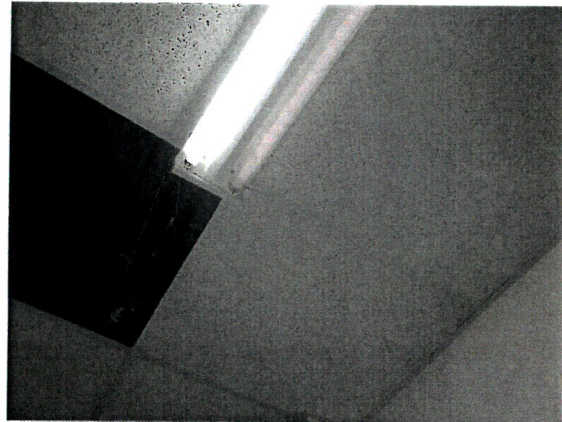


Photo 16: Ceiling Tile – Throughout Main Floor (ND)

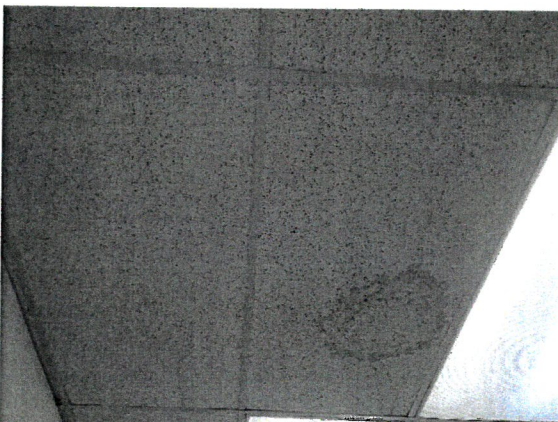


Photo 17: Ceiling Tile – Throughout Main Floor (ND)

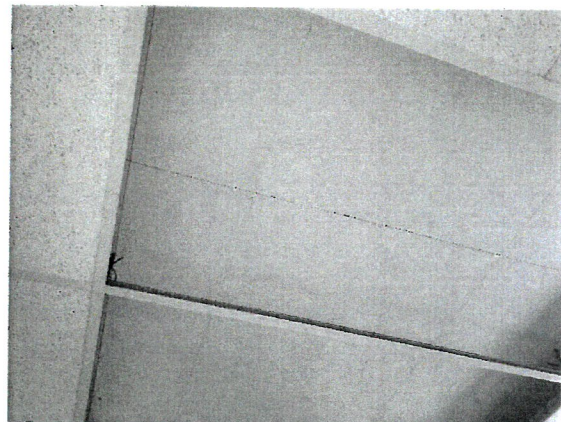


Photo 18: OSB Ceiling Tile – 2nd Floor Above Ceiling Tile (ND)



Photo 19: Mastic – HVAC
(ND)



Photo 20: Caulking – Roof on Vent
(ND)



Photo 21: Tar – Roof on Vent
(ND)



Photo 22: Caulking – Roof on Vent
(ND)



Photo 23: Torchon Membrane Roofing –
Gym Awning (ND)



Photo 24: Composite Shingle – Gym
Addition (ND)



Photo 25: Stucco – Exterior Front
(ND)



Photo 26: Stucco – Exterior Front
(ND)



Photo 27: Stucco – Exterior Side
(ND)

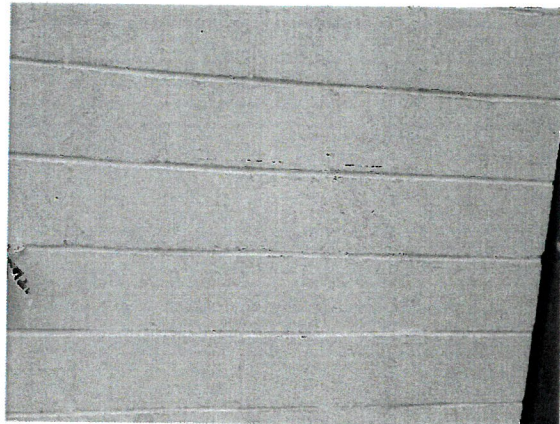


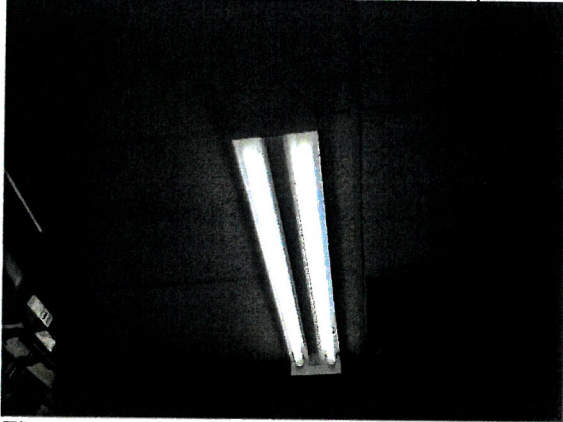
Photo 28: Mortar – Block Mortar
(ND)



Photo 29: Mortar – Exterior Front
(ND)

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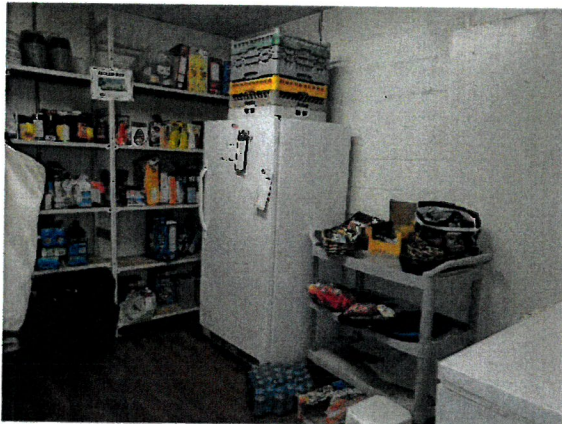
PHOTOS (other potential hazards)



Fluorescent Light Ballast; Fluorescent Tube Lights (PCB; Mercury)



Fluorescent Light Ballast; Fluorescent Tube Lights (PCB; Mercury)



Refrigerator (ODS)



Freezer (ODS)



Smoke Detector (Americium)

Asbestos Analyses Results
 4440 Happy Valley Rd.
 Victoria, BC



778-351-1966

info@arecenvironmental.com

AREC Environmental Group, Ltd.
 6825 Suite A, Veyness Rd.
 Saanichton, BC, V8M 2A7

ARECEnvironmental.com

Asbestos Analyses Results					
Project Number:	N/A	Date of Analysis:	April 20, 2022		
Site Address:	4440 Happy Valley Road	Client:			
Description:	N/A	Analyst:	C. Nordin		
Lab Analysis Method:	EPA 600/R-93/116 (July 1993)	Notes:			
Sample Number	Lab Number	Material Description - Sample Location	Asbestos Type	Non-Asbestos Fibrous Material	Non-Fibrous Material
01	PLM-58681	Drywall Joint Compound – Main Floor Stairs Truck Bay	None detected	0%	100%
02	PLM-58682	Drywall Joint Compound – Main Floor Gym	None detected	0%	100%
03	PLM-58683	Drywall Joint Compound – Main Floor Sauna Room	None detected	0%	100%
04	PLM-58684	Drywall Joint Compound – Main Floor Reception Hall	None detected	0%	100%
05	PLM-58685	Drywall Joint Compound – Main Floor Kitchen	None detected	0%	100%
06	PLM-58686	Drywall Joint Compound – Main Floor Stairs to 2 nd Floor	None detected	0%	100%
07	PLM-58687	Drywall Joint Compound – Main Floor Cleaning Closet	None detected	0%	100%
08	PLM-58688	Drywall Joint Compound – Main Floor Training Room	None detected	0%	100%
09	PLM-58689	Drywall Joint Compound – Main Floor Storage/Training	None detected	0%	100%



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 AREC Environmental participates in the ChemScope proficiency analytical testing program as part of its quality assurance.

10	PLM-58690	Drywall Joint Compound – Main Floor Chief Office	None detected	0%	100%
11a	PLM-58691	Vinyl Floor Tile – Banquet Hall (Below Laminate)	None detected	0%	100%
11b	PLM-58692	Vinyl Floor Tile Mastic – Banquet Hall (Below Laminate)	None detected	1% cellulose	99%
12a	PLM-58693	Vinyl Floor Tile – Kitchen Storage	None detected	0%	100%
12b	PLM-58694	Vinyl Floor Tile Mastic – Kitchen Storage	None detected	1% cellulose	99%
13a	PLM-58695	Sheet Vinyl Flooring – Washroom	None detected	20% cellulose	75%
13b	PLM-58696	Sheet Vinyl Flooring Mastic – Washroom	None detected	2% cellulose	98%
14a	PLM-58697	Sheet Vinyl Flooring – Cleaning Closet	None detected	25% cellulose, 5% fibrous glass	70%
14b	PLM-58698	Sheet Vinyl Flooring Mastic – Cleaning Closet	None detected	5% cellulose	95%
15	PLM-58699	Ceiling Tile – Main Floor Throughout	None detected	80% cellulose, 10% fibrous glass	10%
16	PLM-58700	Ceiling Tile – Main Floor Throughout	None detected	80% cellulose, 10% fibrous glass	10%
17	PLM-58701	Ceiling Tile – Main Floor Throughout	None detected	80% cellulose, 10% fibrous glass	10%
18	PLM-58702	Ceiling Tile – Kitchen	None detected	98% cellulose	2%
19	PLM-58703	Mastic – HVAC	None detected	0%	100%
20	PLM-58704	Caulking – Roof Vent	None detected	0%	100%
21	PLM-58705	Tar – Roof Vent	None detected	0%	100%
22	PLM-58706	Caulking – Roof Vent	None detected	0%	100%

23	PLM-58707	Torch-On – Gym Awning	None detected	5% synthetic fiber	95%
24	PLM-58708	Tar Shingle – Gym Addition	None detected	10% fibrous glass	90%
25	PLM-58709	Stucco – Exterior Front	None detected	0%	100%
26	PLM-58710	Stucco – Exterior Front	None detected	0%	100%
27a	PLM-58711	Stucco Skim Coat – Exterior Side	None detected	0%	100%
27b	PLM-58712	Stucco Base Coat – Exterior Side	None detected	0%	100%
28	PLM-58713	Mortar – Block	None detected	0%	100%
29	PLM-58714	Mortar – Exterior Front	None detected	0%	100%

*WorkSafeBC defines materials containing 0.5% asbestos or greater as an asbestos-containing material (ACM).

AREC
 Environmental Group

CERTIFICATE OF ANALYSIS

Client: AREC Environmental
6825A Veyaness
Saanichton BC V8M 2A7

Report Date: 4/20/2022
Report No.: 658574 - Lead Paint
Project: 4440 Happy Valley Rd
Project No.:

Client: ARE792

LEAD PAINT SAMPLE ANALYSIS SUMMARY

Lab No.: 7407868
Client No.: LP-1

Description: Multi Coloured Paint
Location: Int Walls And Trim

Result (% by Weight): <0.0077
Result (ppm): <77
Comments: ***

Lab No.: 7407869
Client No.: LP-2

Description: Multi Coloured Paint
Location: Ext Stucco And Trim

Result (% by Weight): 1.7
Result (ppm): 17000
Comments:

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

Date Received: 4/15/2022

Date Analyzed: 04/20/2022

Signature: Stephen Colis

Analyst: Stephen Colis

Approved By:

Frank E. Ehrenfeld, III

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: AREC Environmental
6825A Veyaness
Saanichton BC V8M 2A7

Client: ARE792

Report Date: 4/20/2022
Report No.: 658574 - Lead Paint
Project: 4440 Happy Valley Rd
Project No.:

Appendix to Analytical Report:

Customer Contact: Send Results
Method: ASTM D3335-85a, US EPA SW846 3050B:7000B

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: wchampion@iatl.com
iATL Account Representative: Kelly Klippel
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Paint
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 ASTM D3335-85a by AAS

Certification:

- National Lead Laboratory Program (NLLAP): AIHA-LAP, LLC No. 100188
- NYSDOH-ELAP No. 11021

This report meets the standards set forth in the EPA's National Lead Laboratory Accreditation Program (NLLAP) through the Laboratory Quality System Requirements (LQSR) Revision 3.0 November 5, 2007. All Environmental Lead Proficiency Analytical Testing (ELPAT) is through the AIHA-PAT established program.

Regulatory limit is 0.5% lead by weight (EPA/HUD guidelines). Recommend multiple sampling for all samples less than regulatory limit for confirmation. 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.

Method Detection Limit (MDL) per EPA Method 40CFR Part 136 Appendix B.
Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELLAP policies.
LSD=0.2 ppm MDL=0.006% by weight. RL= 0.010% by weight (based upon 100 mg sampled).

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.



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

CERTIFICATE OF ANALYSIS

Client: AREC Environmental
6825A Veyaness
Saanichton BC V8M 2A7

Report Date: 4/20/2022
Report No.: 658574 - Lead Paint
Project: 4440 Happy Valley Rd
Project No.:

Client: ARE792

- * Insufficient sample provided to perform QC reanalysis (<200 mg)
- ** Not enough sample provided to analyze (<50 mg)
- *** Matrix / substrate interference possible.

< less than sign, signifies none-detected below the empirical value based upon sub-sampled mass. This is often below the Reporting Limit (see above).