

**Limited Hazardous Materials Investigation  
Village on the Green  
1132 Johnson Street, Victoria, BC**



Prepared for

**Capital Region Housing Corporation**

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## Executive Summary

Island EHS was engaged by Capital Region Housing Corporation to carry out a non-destructive limited hazardous materials investigation at Village on the Green, 1132 Johnson Street in Victoria, BC. This investigation was conducted prior to renovation of the exterior and attics of the three buildings. The buildings were occupied at the time of the investigation. This investigation was carried out on August 17, 2017.

This investigation is intended to identify the locations and types of hazardous materials that are present in the attics and on the exterior of the three buildings.

Building 1-15 is a three storey wood framed structure. Building 16-37 is a four storey wood framed structure. The laundry/garage is a single storey wood framed structure. All three buildings were constructed in 1984.

The exterior, roof and one attic from each building were inspected.

The following hazardous materials were reviewed:

Material	Description	Recommendation
Asbestos	No asbestos containing materials were identified in the renovation areas	Should the scope of the renovation change, additional samples will be required.
Lead	Lead containing paint is present on exterior surfaces of the buildings	Personal protective equipment during renovation Lead exposure control plan Lead in air monitoring
Silica	Assumed to be present in drywall and stucco	Personal protective equipment during renovation Silica exposure control plan
Mercury	None observed in the renovation area	No action necessary
Hantavirus - Rodent Droppings	None observed in the renovation area	No action necessary
Arsenic	Pressure treated wood observed in the fencing material	Remove for proper disposal. Do not burn.
Radioactive Materials	None observed in the renovation area	No action necessary
Mould	None observed in the renovation area	No action necessary
PCBs	None observed in the renovation area	No action necessary
Ozone Depleting Substances	None observed in the renovation area	No action necessary
Urea Formaldehyde Foam Insulation	None observed in the renovation area	No action necessary
Above Ground Storage Tanks (AGST)	None observed	No action necessary
Leachable Lead	Exterior painted fencing and trim paint lead concentration exceed 100ppm threshold	Consult waste facility for disposal requirements. Leachate testing may be required.
Other Hazardous Materials	Fiberglass insulation	Personal protective equipment during renovation

**Note:** Renovation or demolition activities will require protective measures. Materials may be encountered during work activities that are not identified in this report. If this happens, work must stop in those areas until the materials are properly identified.

## Table of Contents

Executive Summary.....	2
1.0 Introduction.....	4
2.0 Hazardous Materials.....	5
2.1 Materials Subject to WorkSafeBC Regulations.....	5
2.1.1 Asbestos.....	5
2.1.2 Lead.....	6
2.1.3 Silica.....	6
2.1.4 Mercury.....	7
2.1.5 Hantavirus.....	7
2.1.6 Arsenic.....	7
2.1.7 Radioactive Materials.....	8
2.2 Materials Subject to WorkSafeBC Guidelines.....	8
2.2.1 Mould.....	8
2.3 Materials Controlled by Environmental Regulations.....	8
2.3.1 Polychlorinated Biphenyls.....	8
2.3.2 Ozone Depleting Substances.....	9
2.3.3 Urea Formaldehyde Foam Insulation.....	9
2.3.4 Fuel Oil Storage Tanks.....	9
2.3.5 Leachable Metals.....	9
2.3.6 Other Materials.....	9
3.0 Results and Recommendations.....	10
3.1 Asbestos.....	10
3.2 Lead.....	10
3.3 Leachable Metals.....	12
3.4 Silica.....	12
3.5 Mercury.....	12
3.6 Hantavirus (and other Animal Droppings).....	12
3.7 Arsenic.....	13
3.8 Radioactive Materials.....	13
3.9 Mould.....	13
3.10 Polychlorinated Biphenyls.....	13
3.11 Ozone Depleting Substances.....	13
3.12 Urea Formaldehyde Foam Insulation.....	13
3.13 Fuel Oil Storage Tanks.....	13
3.14 Other Materials.....	13
3.15 Abatement Clearance Documentation.....	14
4.0 Closure.....	14
Appendix 1 Photographs	
Appendix 2 Laboratory Results	

## 1.0 Introduction

Island EHS was engaged by Capital Region Housing Corporation to carry out a non-destructive limited hazardous materials investigation at Village on the Green, 1132 Johnson Street in Victoria, BC. This investigation was conducted prior to renovation of the exterior and attics of the three buildings. The buildings were occupied at the time of the investigation. This investigation was carried out on August 17, 2017

Building 1-15 is a three storey wood framed structure. Building 16-37 is a four storey wood framed structure. The laundry/garage is a single storey wood framed structure. Pink fibreglass, blown-in insulation was observed in the attics of units 1 and 37 and the laundry/garage building. All three buildings have the same painted stucco exterior with painted wood trim and the roofs are all tar shingle. This investigation was completed prior to a building envelope inspection which could include cutting inspection holes in the stucco and inspection of several attics.

Visual identification of hazardous materials was carried out. Representative samples of building materials were collected for asbestos testing. Paint samples were collected for determination of lead content.

## 2.0 Hazardous Materials

Hazardous materials are present in a large number of common building materials. These materials must be managed effectively to prevent exposure to workers and other persons, or they must be removed. In situations where work activities such as renovations and demolition will affect hazardous materials they must be removed prior to the start of work or appropriate control measures need to be implemented to ensure that workers are not exposed and contamination is not spread throughout the work and adjacent areas.

WorkSafeBC has established regulations regarding the handling and management of a number of hazardous materials along with guidelines for other hazardous materials. Other materials are regulated by environmental laws.

Materials that must comply with WorkSafeBC regulations include:

1. Asbestos
2. Lead
3. Silica
4. Mercury
5. Hantavirus
6. Arsenic
7. Radioactive materials

Materials that WorkSafeBC has established guidelines for include:

1. Mould

Materials that must comply with environmental regulations:

1. Polychlorinated biphenyls
2. Ozone depleting substances
3. Urea formaldehyde foam insulation
4. Fuel oil storage tanks

## 2.1 Materials Subject to WorkSafeBC Regulations

### 2.1.1 Asbestos

Asbestos is a very common component of building materials. Most asbestos containing materials went out of use in the early 1980s. However, WorkSafeBC has determined that buildings constructed up to 1990 may contain asbestos and must be inspected prior to the start of renovation or demolition activities.

Asbestos becomes a hazard when it is disturbed and airborne dust is created. Caution must be taken to ensure that asbestos containing materials are not disturbed. Asbestos exposure is known to have a number of health effects including asbestosis, lung cancer and mesothelioma.

Asbestos has been used in approximately 3000 manufactured products and is commonly found in residential structures in:

- Floor products (sheet flooring and floor tiles)
- Drywall filler compounds
- Plasters (usually in buildings constructed prior to 1930)
- Textured ceiling applications
- Duct tape (on heating system ducting and around forced air registers)
- Vermiculite
- Caulking and putties (on windows and doors and in levelling compounds)

- Cement products (siding and shingles as well as underground drainage pipes)
- Roofing felts and papers
- Pipe insulation (on piping, boilers and hot water tanks)

WorkSafeBC defines an asbestos containing material as one containing 0.5% or more asbestos by weight. Vermiculite is considered to be asbestos containing if any asbestos is present. WorkSafeBC has designated asbestos as an ALARA substance. This means that exposures to this material must be kept "as low as reasonably achievable". Section 5.54 of the Occupational Health and Safety Regulation states that employers are required to develop and implement an exposure control plan when workers may be exposed to airborne concentrations of asbestos greater than 50% of the exposure limit.

All asbestos waste must be handled, transported and disposed of in accordance with current Ministry of Environment regulations.

### 2.1.2 Lead

Lead has been commonly used in paints and coatings. Coatings manufactured prior to 1950 are likely to contain high concentrations of lead. Residential paints manufactured after 1950 contain lower concentrations of lead. Residential paints manufactured after 1978 are unlikely to contain lead. Industrial paints and coatings are still made with lead.

Lead becomes a hazard when painted surfaces are disturbed and airborne dust is created. Caution must be taken to ensure that lead containing materials are not disturbed. Lead exposure is known to have a number of health effects including damage to the central nervous system. It also affects the uptake of oxygen in the blood and can accumulate in bones.

Lead is used in plumbing fixtures. Flashings and other products found on roofs may be made of pure lead. Lead has also been used in solders. This may be found on plumbing lines as well as on electrical equipment.

WorkSafeBC has designated lead as an ALARA substance. This means that exposures to this material must be kept "as low as reasonably achievable". Section 5.54 of the Occupational Health and Safety Regulation states that employers are required to develop and implement an exposure control plan when workers may be exposed to airborne concentrations of lead greater than 50% of the exposure limit. Lead exposures can also occur when lead products are touched and lead contamination is ingested (eaten).

Waste materials with lead based paint on them do not have special disposal requirements. Lead paint that has been removed from building materials requires leachate testing to determine the appropriate method of disposal.

### 2.1.3 Silica

Silica is one of the most common element on earth. It is found almost everywhere. It appears in two (2) main forms - amorphous and crystalline. Amorphous silica is not generally considered to be a significant hazard. Crystalline silica is known to have a number of health effects including silicosis.

Crystalline silica becomes a hazard when it is disturbed and airborne dust is created. Caution must be taken to ensure that silica containing materials are not disturbed.

Crystalline silica is present in a number of common building materials. These include:

- Plasters
  - Cement
- Stucco  
Drywall Filler Compounds

WorkSafeBC has designated crystalline silica as an ALARA substance. This means that exposures to this material must be kept “as low as reasonably achievable”. Section 5.54 of the Occupational Health and Safety Regulation states that employers are required to develop and implement an exposure control plan when workers may be exposed to airborne concentrations of crystalline silica greater than 50% of the exposure limit.

#### 2.1.4 Mercury

Mercury is a metal that is liquid at room temperatures and vaporizes at low temperatures. Mercury has a number of industrial uses. It is also found in thermostats, thermometers and inside fluorescent light tubes.

Mercury has a significant toxic effect on the central nervous system and can cause disease and even death. Mercury becomes a hazard when it is released into the environment. Significant concentrations of mercury can be present at room temperature because it vaporizes at low temperatures. This can occur when mercury thermometers or thermostat bulbs are broken or when fluorescent light tubes are broken.

WorkSafeBC has designated mercury as an ALARA substance. This means that exposures to this material must be kept “as low as reasonably achievable”. Section 5.54 of the Occupational Health and Safety Regulation states that employers are required to develop and implement an exposure control plan when workers may be exposed to airborne concentrations of mercury greater than 50% of the exposure limit.

All mercury waste requires disposal in accordance with current Ministry of Environment requirements.

#### 2.1.5 Hantavirus

Hantavirus is associated with Hantavirus Pulmonary Syndrome. This disease is contracted by coming into contact with the droppings or urine of infected rodents. It can also be contracted by being bitten or scratched by infected rodents.

WorkSafeBC states that employers are required to develop and implement an exposure control plan when workers may be exposed to potentially contaminated rodent droppings.

It should be noted that diseases are associated from contact with other animal droppings, most notably Histoplasmosis from contact with infected bird droppings.

There are no special disposal requirements for animal droppings.

#### 2.1.6 Arsenic

Arsenic is a metal that is sometimes used in pesticides. It is also found in pressure treated wood products.

Exposures can occur when arsenic containing materials are disturbed and dust becomes airborne. Sawdust from cutting pressure treated wood or burning these materials can result in significant airborne arsenic concentrations.

Disposal of arsenic waste must be in accordance with current Ministry of Environment requirements.

### **2.1.7 Radioactive Materials**

Radioactive materials are commonly found in smoke detectors. A small amount of radioactive materials (<sup>241</sup>Americium) is sealed in a metal case inside smoke detectors. This metal case must remain undisturbed to prevent exposure to radioactive materials.

Some ceramic tiles and forms of granite have also been found to contain radioactive materials. Radon is a naturally occurring gas created during the decay of other radioactive materials. It is not considered a significant concern on Lower Vancouver Island.

Waste smoke detectors must be disposed of in accordance with Canadian Nuclear Safety Commission requirements.

## **2.2 Materials Subject to WorkSafeBC Guidelines**

### **2.2.1 Mould**

Mould is prevalent throughout our environment. It occurs naturally with mould spores being present everywhere. Mould is nature's way of breaking down and recycling materials. Mould spores require moisture and a food source to begin growing. Water leaks (even very minor leaks) and moisture accumulation are usually sufficient for mould to begin growing.

Exposure to mould spores most often results in allergy type responses in susceptible individuals. These are similar in nature to "hayfever" and can include runny eyes and noses and throat irritation. In more extreme cases, exposure to mould spores can result in "pneumonia-like" responses.

WorkSafeBC has not established exposure levels for airborne mould spores. WorkSafeBC does provide guidelines for dealing with mould contamination. These guidelines are included in the Indoor Air Quality regulation guidelines.

There are no special disposal requirements for mould waste.

## **2.3 Materials Controlled by Environmental Regulations**

### **2.3.1 Polychlorinated Biphenyls**

Polychlorinated biphenyls (PCBs) are regulated by both Provincial and Federal regulations. Fluorescent light ballasts containing PCBs must be treated as PCB waste and stored and disposed of in accordance with current regulations. Fluorescent light fixtures removed during demolition, construction or maintenance activities must be inspected for the presence of PCBs.

Each ballast identified as containing PCBs must be sent to a licenced facility in accordance with current regulatory requirements.

### **2.3.2 Ozone Depleting Substances**

Ozone depleting substances (ODS) and chlorofluorocarbons are commonly found in older refrigerators and air conditioning units. They are sometimes found in fire suppression systems. Environmental regulations restrict the release of these compounds into the environment.

When systems or equipment contains ODS are set for disposal all the ODS must be collected for recycling or disposal by a licenced contractor.

### **2.3.3 Urea Formaldehyde Foam Insulation**

Urea formaldehyde foam insulation (UFFI) was used as a retrofit insulation in older buildings. The expanding foam would be sprayed into wall and ceiling cavities to provide additional insulation in older buildings. It was most commonly used in residential settings.

Over time, in the presence of moisture, the insulation can break down and release formaldehyde gas. This insulating material was banned in 1978. Many older buildings contain UFFI.

There are no special disposal requirements for UFFI waste.

### **2.3.4 Fuel Oil Storage Tanks**

Fuel oil storage tanks (above and below ground) are found in many houses and commercial buildings. The tanks can corrode and leak as they age. Spills often occur during tank filling and create contamination.

Tanks in use must be monitored to ensure that spillage and contamination does not occur. Tanks no longer in use must be removed for disposal and the surrounding soil checked for contamination.

### **2.3.5 Leachable Metals**

The BC Ministry of Environment regulates the disposal of some waste materials based on the leachability of metals and other compounds from the waste.

Testing may have to be carried out on materials removed from the building before they can be sent for disposal. This will depend on where the waste is being sent.

### **2.3.6 Other Materials**

A number of hazardous materials may be present in a building that will be affected by renovations or demolition. These can include:

- Propane or butane cylinders
- Paint
- Solvents
- Toxic or corrosive products
- Other flammable materials

### 3.0 Results and Recommendations

The exterior surfaces and one attic from each building were inspected for the presence of a variety of hazardous materials. WorkSafeBC requirements specify that precautions are necessary when handling these materials. The necessary precautions will depend on the disposition of each hazardous material.

**Trained qualified contractors need to be hired to carry out remedial work on hazardous materials.** All general demolition work should be carried out by workers wearing respirators and disposable coveralls.

Copies of this report must be provided to contractors engaged to work in the building.

Notices of Project must be submitted in accordance to WorkSafeBC requirements.

**Materials may be encountered during work activities that are not identified in this report. If this happens, work must stop in those areas until the materials are properly identified.**

### 3.1 Asbestos

A total of thirteen (13) representative bulk samples of such materials as drywall joint compound, stucco, and roofing material were collected from the three buildings. **No asbestos containing materials were identified.**

**Should scope of the renovation change, additional sampling will be required.**

Results of asbestos sample analysis and sample identification and locations are attached in Appendix 2.

**A visual inspection of accessible areas within one attic space from each building was conducted and no vermiculite insulation was observed. This material may still exist in areas not inspected beneath insulation or within false ceilings, it may also exist within wall cavities and around chimneys. If discovered the material should be tested for the presence of asbestos.**

Prior to the performance of any work that may disturb asbestos containing materials it is a regulatory requirement that a qualified person perform a Risk Assessment. This requirement is in compliance with the WorkSafeBC Occupational Health & Safety Regulation *Part 6 "Substance Specific Requirements"*; specifically Section 6.6 subsections (1), (2), (3), & (4).

### 3.2 Lead

The currently allowable level of lead in paint is set by Health Canada under the Canada Consumer Protection Act, Surface Coating Materials Regulation (SOR 2005-09). Under this regulation the maximum allowable concentration of lead in paint sold to consumers is 0.009% (90 µg/g). WorkSafeBC considers paint which contains lead at concentrations greater than 0.009% to present a potential health hazard, if it is removed incorrectly. Lead testing was carried out on four (4) paint samples collected from exterior surfaces. The beige fencing and trim paint sample result was determined to be above the maximum allowable concentration for lead in paint (90 µg/g) adopted by WorkSafeBC.

**Table 1: Summary of Lead in Paint**

Location	Description	Lead Content (µg/g)	WorkSafeBC Lead in Paint Maximum Allowable Concentration (µg/g)
Exterior stucco	Beige paint	<69	90
Exterior wood trim	Green paint	<76	
<b>Exterior wood fencing and trim</b>	<b>Beige paint</b>	<b>280</b>	
Exterior wood trim	Brown paint	<79	

µg/g = micro grams per gram.

< = result is less than the limit of detection.

\*substrate/matrix interference possible

Any untested painted surfaces are presumed lead-containing unless sampled and found to be non-lead containing. For removal of other hazardous materials, including lead-based paint, an employer is required under Section 5 of the OHSR to develop work procedures designed to minimize a worker's risk of exposure, and that both the supervisor and worker be properly trained to handle the material, including cleanup and disposal. Lead may be present as solder on any remaining plumbing systems and may be present on other fixtures such as flashings or roof vents.

**WorkSafeBC regulation requires that contractors working with lead-based containing materials have a Lead Exposure Control Plan in place including site specific work procedures prior to work commencing. The Regulation also requires that lead in air samples be collected at the beginning of work tasks to ensure proper control methods are employed to control lead dust exposures.**

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.

In order to control worker exposure to lead paint particulate, any demolition, 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, as a minimum, the following:

- Use of Half face respirators equipped with P100 class filters, disposable Tyvek™ or equivalent coveralls and work gloves;
- Segregation of the work area by the use of barrier tape and warning placards;
- Use of drop sheets and tarps to prevent spread of lead-containing dust;
- Use of HEPA filter equipped vacuum cleaner(s);
- Thorough washing before eating, drinking or smoking;
- Application of water to the materials being disturbed;
- Filing of a "Notice of Project" with WorkSafeBC prior to significant disturbance of lead-containing paint; and,
- Air monitoring during disturbance of lead-containing paint

Under the BC Hazardous Waste Regulation materials with identified lead-based paint destined for disposal at a licensed landfill facility must be tested for leachability to determine if they should be handled as a hazardous waste.

### 3.3 Leachable Metals

The BC Ministry of Environment regulates the disposal of some waste materials based on the leachability of metals and other compounds from the waste.

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).

### 3.4 Silica

Silica testing was not carried out, but this material will be present in stucco and possibly drywall filler compounds. Silica containing stucco was observed on the exterior of all three buildings.

Precautions must be put in place during demolition and renovation activities to ensure that workers are not exposed to silica containing dust and debris. **WorkSafeBC regulation requires that contractors working with silica-based containing materials have a Silica Exposure Control Plan in place including site specific work procedures prior to work commencing.**

In order to control worker exposure to silica dust, any abrasive blasting, jackhammering, chipping, drilling, cutting, sawing or other disturbance of identified concrete, plaster or drywall walls or ceilings should be conducted following appropriate safe work procedures. Procedures will vary depending on the nature of the work but should consider, as a minimum, the following:

- Use of Half-face respirators equipped with P100 class filters, disposable Tyvek™ or equivalent coveralls and work gloves;
- Continuous application of water spraying to materials being disturbed;
- Use of drop sheets and tarps to prevent spread of silica-containing dust;
- Use of HEPA filter equipped vacuum(s);
- HEPA equipped negative air unit for dust suppression purposes (recommended); and
- Air monitoring as per WorkSafeBC requirements.

### 3.5 Mercury

Mercury containing thermostats and fluorescent lights were not observed in the renovation area

### 3.6 Hantavirus (and other Animal Droppings)

Rodent droppings were not observed in the renovation area.

**WorkSafeBC regulation requires that contractors handling/cleaning animal and rodent feces have a Hantavirus Exposure Control Plan in place including site specific work procedures prior to work commencing.**

### **3.7 Arsenic**

Pressure treated wood was observed in the fencing material. Remove for proper disposal and do not burn.

### **3.8 Radioactive Materials**

Smoke detectors were not observed in the renovation area.

### **3.9 Mould**

Mould was not observed in the renovation area. If mould is encountered, precautions must be taken to ensure that workers are not exposed to mould spores.

Fungal contamination may be present within wall or ceiling cavities. During demolition activities, precautions must be taken to ensure that workers are not exposed to potential mould spores which would include, as a minimum, half face respirator fitted with HEPA filtered P100 cartridges, disposable suits and impermeable gloves and eye protection and that use of HEPA filtered negative air cabinets and HEPA filtered vacuums be employed.

### **3.10 Polychlorinated Biphenyls**

Fluorescent light ballasts were not observed in the renovation area.

### **3.11 Ozone Depleting Substances**

Older refrigerators were not observed in the renovation area.

### **3.12 Urea Formaldehyde Foam Insulation**

Urea Formaldehyde Foam Insulation was not observed in the renovation area. This material is not suspected of being present.

### **3.13 Fuel Oil Storage Tanks**

Fuel oil storage tanks (above ground) were not observed during the investigation.

### **3.14 Other Materials**

Synthetic fibre insulation exists throughout the attics. Removal of these materials should be conducted wearing proper respiratory protection and protective clothing including impermeable gloves, eye protection and half-face respiratory protection equipped with P-100 particulate filters.

Tenant's contents were not assessed.

### 3.15 Abatement Clearance Documentation

In order to comply with BC Workers Compensation Board Occupational Health & Safety Regulation Part 20.112(8) a qualified person (Island EHS) must conduct a final inspection after all of the hazardous materials identified in this report have been safely contained or removed. Once all of the hazardous materials have been removed and the final inspection has been completed a written clearance letter can be provided.

## 4.0 Closure

This document was prepared for the exclusive use of our client. All conclusions and recommendations are based upon conditions at the site at the time of this investigation. All conclusions and recommendations are based upon professional opinions. These opinions are in accordance with accepted industrial hygiene assessment standards and practices and comply with current WorkSafeBC requirements.

All conclusions and recommendations made in this report are based on conditions at the time of inspection. Changes may occur over time that will require a re-evaluation of the site.

All work was carried out based on the Scope of Work that was agreed upon with the client prior to the start of work, constraints imposed by the client and availability of access to the site. A Stage 1 Preliminary Site Investigation was not part of the scope of work.

No warranty or guarantee, whether expressed or implied, are made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions at the time of the investigation.

This report may not be used, relied upon, copied, published, or quoted by any party without the written consent of Island EHS. Other parties reading this report must independently verify the completeness and accuracy of this report and its contents.

This report is not intended as a Scope of Work for tender or bidding purposes. Any use of this report in that fashion is at the sole discretion and liability of the Owner.



Athena Hall  
Occupational Hygiene Technician  
Field Investigation & Report



Heidi Dunn,  
Principal  
Report Review

## **Appendix 1**

### **Photographs**



Sample: 12440 - 1  
Unit/Location: Unit 1, Attic  
Description: Drywall filler  
Asbestos: None Detected



Sample: 12440 - 2  
Unit/Location: Unit 37, Attic  
Description: Drywall filler  
Asbestos: None Detected



Sample: 12440 - 3  
Unit/Location: Garage / Laundry  
Description: Drywall filler  
Asbestos: None Detected



Sample: 12440 - 4  
Unit/Location: Building 1 - 15, Front  
Description: Stucco  
Asbestos: None Detected



Sample: 12440 - 5  
Unit/Location: Building 1 - 15, Side  
Description: Stucco  
Asbestos: None Detected



Sample: 12440 - 6  
Unit/Location: Building 1 - 15, Side  
Description: Stucco  
Asbestos: None Detected



Sample: 12440 - 7  
 Unit/Location: Building 16 – 37, Rear  
 Description: Stucco  
 Asbestos: None Detected



Sample: 12440 – 8  
 Unit/Location: Building 16 – 37, Side  
 Description: Stucco  
 Asbestos: None Detected



Sample: 12440 - 9  
 Unit/Location: Building 16 – 37, Side  
 Description: Stucco  
 Asbestos: None Detected



Sample: 12440 – 10  
 Unit/Location: Garage / Laundry  
 Description: Stucco  
 Asbestos: None Detected



Sample: 12440 - 11  
 Unit/Location: Garage / Laundry  
 Description: Tar Shingle  
 Asbestos: None Detected



Sample: 12440 – 12  
 Unit/Location: Building 16 – 37  
 Description: Tar Shingle  
 Asbestos: None Detected



Sample: 12440 - 13  
Unit/Location: Building 1 - 15  
Description: Tar Shingle  
Asbestos: None Detected

## Appendix 2

### Laboratory Results

# Asbestos Bulk Sample Report

Project #: 12440  
 Client: CRHC  
 Site: 1132 Johnson Street

Sampled by: AH  
 Date Sampled: 17-Aug-17  
 Analyst: SD/IH

201 – 990 Hillside Avenue  
 Victoria, B.C. V8T 2A1  
 778-406-0933  
[admin@islandehs.ca](mailto:admin@islandehs.ca)

Sample #	Location	Material	Analysis Date	Layer	Description	%	Asbestos	%	Other Materials	%
1	Unit 1 Attic	Drywall filler	21-Aug-17	1	White chalky	100	None detected	0	Non fibrous	100
2	Unit 37 attic	Drywall filler	21-Aug-17	1	White chalky	100	None detected	0	Non fibrous	100
3	Garage/laundry	Drywall filler	21-Aug-17	1	White chalky	100	None detected	0	Non fibrous	100
4	Bldg. 1-15, front	Stucco	21-Aug-17	1	Paint	10	None detected	0	Non fibrous	100
				2	White cement	60	None detected	0	Non fibrous	100
				3	Grey cement	30	None detected	0	Non fibrous	100
5	Bldg. 1-15, side	Stucco	21-Aug-17	1	Grey cement	100	None detected	0	Non fibrous	100
6	Bldg. 1-15 Side	Stucco	21-Aug-17	1	Paint	5	None detected	0	Non fibrous	100
				2	Grey cement	95	None detected	0	Non fibrous	100
7	Bldg. 16-37, rear	Stucco	21-Aug-17	1	Paint	5	None detected	0	Non fibrous	100
				2	White cement	95	None detected	0	Non fibrous	100
8	Bldg. 16-37 side	Stucco	21-Aug-17	1	Paint	30	None detected	0	Non fibrous	100
				2	White cement	70	None detected	0	Non fibrous	100
9	Bldg. 16-37, side	Stucco	21-Aug-17	1	Paint	30	None detected	0	Non fibrous	100
				2	White cement	70	None detected	0	Non fibrous	100
10	Garage/laundry	Stucco	21-Aug-17	1	Paint	50	None detected	0	Non fibrous	100
				2	White cement	50	None detected	0	Non fibrous	100
11	Garage/laundry	Tar shingle	21-Aug-17	1	Brown/Grey shingle	100	None detected	0	Cellulose Non fibrous	30 70
12	Bldg. 16-37	Tar shingle	21-Aug-17	1	Brown/Grey shingle	100	None detected	0	Cellulose Non fibrous	30 70
13	Bldg. 1-15	Tar shingle	21-Aug-17	1	Brown/Grey shingle	100	None detected	0	Cellulose Non fibrous	30 70

## CERTIFICATE OF ANALYSIS

**Client:** Island EHS  
201-990 Hillside Avenue  
Victoria BC V8T 2A1

**Report Date:** 8/21/2017  
**Report No.:** 544327 - Lead Paint  
**Project:** Johnson St.  
**Project No.:** 12440

**Client:** ISL758

### LEAD PAINT SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6318481      **Description:** Beige Paint      **Result (% by Weight):** <0.0069  
**Client No.:** 12440-Pb1      **Location:** Stucco, 17-Aug-17      **Result (ppm):** <69  
**Comments:**

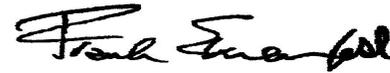
**Lab No.:** 6318482      **Description:** Green Paint      **Result (% by Weight):** <0.0076  
**Client No.:** 12440-Pb2      **Location:** Trim, 17-Aug-17      **Result (ppm):** <76  
**Comments:**

**Lab No.:** 6318483      **Description:** Beige Paint      **Result (% by Weight):** 0.028  
**Client No.:** 12440-Pb3      **Location:** Fencing And Trim, 17-Aug-17      **Result (ppm):** 280  
**Comments:** \*\*\*

**Lab No.:** 6318484      **Description:** Brown Paint      **Result (% by Weight):** <0.0079  
**Client No.:** 12440-Pb4      **Location:** Trim, 17-Aug-17      **Result (ppm):** <79  
**Comments:**

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

**Date Received:** 8/18/2017  
**Date Analyzed:** 08/21/2017  
**Signature:**   
**Analyst:** Chad Shaffer

**Approved By:**   
Frank E. Ehrenfeld, III  
Laboratory Director

## CERTIFICATE OF ANALYSIS

**Client:** Island EHS  
201-990 Hillside Avenue  
Victoria BC V8T 2A1

**Report Date:** 8/21/2017  
**Report No.:** 544327 - Lead Paint  
**Project:** Johnson St.  
**Project No.:** 12440

**Client:** ISL758

### Appendix to Analytical Report:

**Customer Contact:**

**Analysis:** ASTM D3335-85a

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:** Pete Lesniak

**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](http://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.

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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

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=0.005% 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](mailto:customerservice@iatl.com).

\* Insufficient sample provided to perform QC reanalysis (<200 mg)

\*\* Not enough sample provided to analyze (<50 mg)

\*\*\* Matrix / substrate interference possible.