

**TENDER ADDENDUM**

**Maison Charron Rehabilitation – 164 Laurier  
Street, Gatineau, Qc.  
Tender File # AL1467  
October 9, 2013  
ADDENDUM NO: 1**

**ADDENDA À LA SOUMISSION**

**Réhabilitation de la Maison Charron, 164 rue  
Laurier, Gatineau, Qc  
Dossier de soumission de la CCN no. AL1467  
Le 9 octobre 2013  
ADDENDA NO: 1**

The following shall be read in conjunction with and shall form an integral part of the Tender/Proposal and Contract Documents:

1. For subcontractors only, note the BDSQ (Bureau des soumissions déposées au Québec) file is **H-0137-13** at [www.bsdq.org](http://www.bsdq.org) as per attached.
2. Designated Substances Report annexed.

Allan Lapensée  
Senior Contract Officer  
Procurement Services

Ce qui suit doit être interprété comme faisant partie intégrante de la proposition/appeal d'offres et des documents relatifs au contrat :

1. Pour les sous-traitants seulement, notez que la filière du BDSQ (Bureau des soumissions déposées au Québec) est **H-0137-13** sur [www.bsdq.org](http://www.bsdq.org) selon l'annexe.
2. En annexe, le rapport des substances désignées.

Allan Lapensée  
Agent principal des contrats  
Services d'approvisionnement



Bureau des soumissions déposées du Québec

☎ 514 355-7600

☎ 514 355-7615

🌐 www.bsdq.org

✉ info@bsdq.org

7750, rue Bombardier  
Anjou, (Québec) H1J 2G3

Anjou, le 8 octobre 2013

Commission de la Capitale Nationale (Ottawa)

Allan Lapensée

40, rue Elgin

3e étage

Ottawa, Ontario, K1P 1C7

☎ 1 (613) 239-5051

☎ 1 (613) 239-5007

**Objet : Confirmation d'ouverture de projet au BSDQ**

---

**No projet BSDQ : H-0137-13**Commission de la Capitale Nationale (CCN) - #AL1467 - Réhabilitation de la Maison Charron au  
164, rue Laurier à Gatineau.**Clôture au BSDQ : 2013/10/17 14:00****Soumission TES :** Veuillez prendre note que depuis le 1 février 2013, seules des soumissions électroniques peuvent être acheminées aux entrepreneurs destinataires et être accessibles aux professionnels via la TES (Transmission électronique des soumissions). Pour plus de renseignements sur la procédure à suivre afin d'obtenir un code d'utilisateur, visitez notre site Internet [www.bsdq.org](http://www.bsdq.org) ou contactez notre *Centre de soutien TES* au numéro 1 866 355-0971 ou 514 355-7600 pour les appels locaux.

---

Le BSDQ recevra des soumissions d'entrepreneurs spécialisés sur le projet mentionné ci-dessus.

Pour plus d'informations, veuillez s.v.p. communiquer avec le *Service de l'information* au numéro 1 866 355-0971 ou 514 355-7600 pour les appels locaux. Il est également possible qu'un représentant du BSDQ se déplace, sur demande et sans frais, pour une présentation sur le mode de fonctionnement du BSDQ et sur les règles du Code de soumission.Par ailleurs, nous vous invitons à visiter notre site Internet [www.bsdq.org](http://www.bsdq.org) où vous pouvez vous procurer, gratuitement, le Code de soumission ainsi qu'une multitude de renseignements concernant les règles et les services que nous offrons.

Veuillez accepter, madame, monsieur, l'expression de nos sentiments les meilleurs.

Service de l'information

☎ 514 355-7600 | 1 866 355-0971

☎ 514 355-7615

✉ info@bsdq.org



## DESIGNATED SUBSTANCE SURVEY ASSET NO. 3669

164 RUE LAURIER  
GATINEAU, QUEBEC

Prepared For:  
National Capital Commission

**DISCLAIMER:**  
SOME FORMATTING CHANGES MAY HAVE OCCURRED WHEN  
THE ORIGINAL DOCUMENT WAS PRINTED TO PDF; HOWEVER,  
THE ORIGINAL CONTENT REMAINS UNCHANGED.

NOVEMBER 2010  
REF. NO. 072145 (6)

**Prepared by:**  
**Conestoga-Rovers  
& Associates**

179 Colonnade Rd., Suite 400  
Ottawa, Ontario  
Canada K2E 7J4

Office: (613) 727-0510  
Fax: (613) 727-0704

web: <http://www.CRAworld.com>

## **EXECUTIVE SUMMARY**

Conestoga-Rovers & Associates Ltd. (CRA) was retained by the National Capital Commission (NCC) to conduct a Designated Substances Survey (DSS) of the Maison Charron (Asset No. 3669) located at 164 Rue Laurier, Gatineau, Quebec (Site). The objective of the DSS was to identify and evaluate the presence of regulated designated substances and other potentially hazardous materials including ozone-depleting substances (ODS), polychlorinated biphenyls (PCB), and other potentially significant environmental and health-related concerns associated with the building asset.

The building located at the Site is a one-storey residential building with a basement. The building was constructed in 1826 and has had some renovations since the original construction. The original second storey has been removed to create vaulted ceilings. An attic remains above the ceiling; however it was unreachable by CRA staff at the time of the Site inspection (approximately 5 metres above the floor). The exterior of the building is finished with plaster (textured finish) and wood siding, has a concrete foundation, and wood shake roof. The interior walls and ceilings are comprised of drywall. The flooring observed during the DSS consisted of hardwood and concrete.

The following conclusions are made based on the information gathered and evaluated as part of the DSS:

### **Benzene**

Benzene and/or benzene-containing materials were not observed at the Site; however, there may be a potential exposure hazard to employees or construction workers if plastic or rubber materials are exposed to excessive heat or if a fire occurs.

### **Lead**

The lead based paint (LBP) survey conducted as part of the DSS indicated elevated lead concentrations in certain paint including the white interior wall/trim/ceiling paint, the white exterior trim paint, and the green exterior shutter paint. All of these painted surfaces were observed to be in good condition at the time of the Site inspection. Lead is also most likely present in solder of electrical equipment and plumbing fixtures, batteries in emergency lighting and alarms, and potentially in old metal pipes (no sample collected for lead analysis).

### **Silica**

Silica is present in the stone, mortar, drywall, plaster, concrete, ceramic, and asphalt (containing rock and stone) observed at the Site. Silica-containing construction materials were observed to be in good condition at the time of the Site inspection.

### **Vinyl Chloride**

Vinyl chloride was not observed at the building; however there is a potential exposure hazard to building occupants (employees) including construction workers if polyvinyl chloride (PVC) pipes, wire coatings, or other materials are exposed to excessive heat or if a fire occurs.

### **Ozone-Depleting Substances (ODS)**

One exterior heat pump was present at the Site outside the south end of the building and may potentially contain ODS.

### **Other Designated Substances and Hazardous Materials**

Acrylonitrile, Arsenic, Asbestos, Coke Oven Emissions, Ethylene Oxide, Isocyanates, Mercury, PCBs, Significant Water Intrusion/Suspect Mould Growth, Urea Formaldehyde Foam Insulation (UFFI), Fecal Waste, and Radioactive Sources in Smoke Detectors were not identified at the Site.

Based on Site conditions, Site knowledge, and historical/current building use regarding designated substance and hazardous materials, no immediate abatement or management actions are required. In the event that NCC plans to conduct Site maintenance, renovation or demolition activities that may disturb designated substances or hazardous materials, notification, management plans and/or abatement activities should be conducted to prevent releases and exposures, as appropriate.

TABLE OF CONTENTS

	<u>PAGE</u>
1.0 INTRODUCTION .....	1
1.1 BACKGROUND .....	1
2.0 SCOPE OF WORK .....	2
3.0 DESIGNATED SUBSTANCE SURVEY .....	4
3.1 ACRYLONITRILE .....	4
3.2 ARSENIC .....	5
3.3 ASBESTOS .....	5
3.4 BENZENE .....	5
3.5 COKE OVEN EMISSIONS .....	6
3.6 ETHYLENE OXIDE .....	6
3.7 ISOCYANATES .....	6
3.8 LEAD .....	6
3.9 MERCURY .....	7
3.10 SILICA .....	7
3.11 VINYL CHLORIDE .....	8
4.0 SURVEY OF POTENTIAL PCB CONTAINING EQUIPMENT .....	9
4.1 GENERAL .....	9
4.2 IDENTIFIED PCB-CONTAINING EQUIPMENT .....	9
5.0 EQUIPMENT POTENTIALLY CONTAINING OZONE DEPLETING SUBSTANCES (ODS).....	10
6.0 LEAD BASED PAINT (LBP) SURVEY .....	11
6.1 GENERAL .....	11
6.2 LBP SAMPLING ACTIVITIES.....	12
6.3 ANALYTICAL RESULTS.....	12
7.0 ASBESTOS CONTAINING MATERIALS (ACM) SURVEY .....	14
7.1 GENERAL .....	14
7.2 ACM SAMPLING ACTIVITIES .....	15
7.3 ANALYTICAL RESULTS.....	15
8.0 ADDITIONAL OBSERVATIONS .....	16
8.1 WATER INTRUSION/MOULD GROWTH.....	16
8.2 UREA FORMALDEHYDE FOAM INSULATION (UFFI).....	16
8.3 FECAL WASTE.....	17
8.4 RADIOACTIVE SOURCES IN SMOKE DETECTORS.....	17
9.0 RECOMMENDATIONS.....	18
9.1 IMMEDIATE RECOMMENDATIONS .....	19
10.0 LIMITATIONS.....	20

LIST OF FIGURES  
(Following Text)

FIGURE 1	SAMPLE LOCATIONS - BASEMENT
FIGURE 2	SAMPLE LOCATIONS - GROUND FLOOR

LIST OF TABLES  
(Following Text)

TABLE 1	SUMMARY OF LEAD PAINT SAMPLES
TABLE 2	SUMMARY OF BULK ASBESTOS SAMPLES

LIST OF APPENDICES

APPENDIX A	PHOTOGRAPH LOG
APPENDIX B	LABORATORY REPORTS

## 1.0 INTRODUCTION

Conestoga-Rovers & Associates Ltd. (CRA) was retained by the National Capital Commission (NCC) to conduct a Designated Substances Survey (DSS) of the Maison Charron (Asset No. 3669) located at 164 Rue Laurier, Gatineau, Quebec (Site). The objective of the DSS was to identify and evaluate the presence of regulated designated substances and other potentially hazardous materials including, ozone-depleting substances (ODS), polychlorinated biphenyls (PCB), and other potentially significant environmental and health-related concerns associated with the building asset.

### 1.1 BACKGROUND

The building located at the Site is a one-storey residential building with a basement. The building was constructed in 1826 and has had some renovations since the original construction. The original second storey has been removed to create vaulted ceilings. An attic remains above the ceiling; however it was unreachable by CRA staff at the time of the Site inspection (approximately 5 metres above the floor). The exterior of the building is finished with plaster (textured finish) and wood siding, has a concrete foundation, and wood shake roof. The interior walls and ceilings are comprised of drywall. The flooring observed during the DSS consisted of hardwood and concrete.

## 2.0 SCOPE OF WORK

The purpose of the DSS at the Site was to:

- Identify and evaluate potential designated substances.
- Identify potential PCB-containing equipment.
- Identify potential ODS-containing equipment.
- Conduct a lead based paint (LBP) survey, including collection of samples of paint chips for lead analysis, if necessary.
- Conduct an asbestos survey, including collection of samples of material identified as potential asbestos containing material (ACM), if necessary.
- Identify other potential environmental and health related concerns associated with the building(s) including significant water intrusion/suspect mould growth, urea formaldehyde foam insulation (UFFI), fecal waste, and radioactive smoke detectors.
- Document the designated substances and other hazardous materials identified in a DSS report.
- Define the extent and volume of designated substances and hazardous building materials including floor-by-floor building plans illustrating affected areas, as necessary.
- Provide Site-specific recommendations for the management and/or removal of designated substances and hazardous materials to assist NCC with prioritizing any required abatement activities, as necessary.

CRA took photographs during the Site inspection and a photograph log is included in Appendix A.

The following items are not generally inspected or sampled by CRA since these were not readily accessible or practical to safely access for inspection or sampling:

- Components or wiring within motors, lights, or other electrical systems, equipment, wiring, and fixtures
- Materials present within walls, below flooring, within ceiling cavities, or in any other area which was not accessible at the time of the Site inspection

- Materials that if sampled might compromise the integrity of the building or its components, including roofing materials, interior of fire doors, gasket materials, below grade structures, and window caulking

### 3.0 DESIGNATED SUBSTANCE SURVEY

The Canadian Labour Code and Occupational Health and Safety Regulations (SOR/86-304) mandates requirements for handling, storing, labeling, and managing hazardous products. Specific materials identified as hazardous products in the Province of Quebec are regulated under the Regulation Respecting Hazardous Materials Q-2, r. 15.2, and includes handling, storing, labeling, and managing requirements for hazardous materials specific to Quebec.

In the Province of Quebec, the Commission de la santé et de la sécurité du travail du Québec (CSST, Québec Occupational Health and Safety Commission) has a list of chemicals for which threshold concentrations in air have been determined. However, the government has not adopted a specific designated substance list for which surveys are mandatory. Under the Safety Code for the Construction Industry (R.Q. c. S-2.1, r.6), a survey is mandatory before undertaking work liable to generate asbestos dust (part 3.23.3).

As a good management practice, for pre-construction surveys conducted in the Province of Quebec, the substances identified under the Ontario Occupational Health and Safety Act (OHSA), Ontario Regulation 490/09 - Designated Substances (O. Reg. 490/09) are all considered.

The following section of this report provides an overview of the primary characteristics of the regulated designated substances and the potential presence of such substances at the Site identified during the August 17, 2010 Site inspection.

#### 3.1 ACRYLONITRILE

Acrylonitrile is a colorless to pale-yellow, mobile liquid with an unpleasant odour. It is used in the manufacture of synthetic fibres, rubber, coatings, and adhesives.

Based on CRA observations during the Site inspection and the historical use of the Site, it is unlikely that acrylonitrile is present at the Site.

### **3.2        ARSENIC**

Arsenic is a silver-gray, brittle, crystalline solid. Arsenic compounds are used as wood preservatives, insecticides, herbicides and in alloys of copper and lead.

Based on CRA observations during the Site inspection and Site knowledge, no materials were observed at the Site that may potentially contain arsenic.

### **3.3        ASBESTOS**

Asbestos is the name used for a group of fibrous minerals that occur naturally in soil and rock in some areas. Asbestos fibres were formerly used (primarily for their insulating and fireproofing properties) in roofing shingles, ceiling tiles, floor tiles, asbestos cement products, gaskets, insulation, paper products and other building and insulating products.

An ACM survey was conducted by CRA as part of this DSS. Details of the asbestos survey are provided in Section 7.0.

### **3.4        BENZENE**

Benzene is a colorless liquid with a sweet odour. It is widely used in North America to make other chemicals, which are used to make plastic, resin, nylon, rubber, lubricants, detergents, drugs, and pesticides. Benzene is also a natural component of crude oil and gasoline.

Based on CRA observations during the Site inspection and historical use of the Site, no benzene and/or benzene-containing materials were observed at the Site. However, benzene or benzene containing materials may be generated from plastic and rubber compounds present if these materials are exposed to excessive heat or if a fire occurs.

### **3.5        COKE OVEN EMISSIONS**

Coke oven emissions are the airborne constituents of the by-product created by destructive distillation of coal and petroleum. The emissions are a result of the production of steel, petroleum products and lining of high temperature furnaces.

Based on CRA observations during the Site inspection and the historical use of the Site, it is unlikely that coke oven emissions are present at the Site.

### **3.6        ETHYLENE OXIDE**

Ethylene oxide is a colorless gas at room temperature, which becomes a liquid at 12°C. It is used in the manufacture of ethylene glycol, surfactants, fumigants, fungicides and petroleum demulsifiers.

Based on CRA observations during the Site inspection and the historical use of the Site, it is unlikely that ethylene oxide is present at the Site.

### **3.7        ISOCYANATES**

Isocyanates are a group of organic compounds formed by treating diamines with phosgene. It is used in the production of polyurethane foam and resins.

Based on CRA observations during the Site inspection and the historical use of the Site, it is unlikely that any isocyanate-containing substances are present at the Site.

### **3.8        LEAD**

Lead is a naturally occurring bluish-gray metal. Lead is used in the production of batteries, ammunition, solder, paint and pipes.

Lead is known to be present in electrical equipment and plumbing (solder), electrical conduit, batteries, older paints, and older metal piping system materials, emergency devices that may contain lead batteries including smoke detectors/fire alarms, and security alarm devices. Based on CRA observations during the Site inspection, lead is

most likely present in solder of electrical equipment and plumbing fixtures, batteries in emergency lighting and alarms, and potentially in old metal pipes. No sample(s) of these materials were collected for lead analysis.

A LBP survey was conducted by CRA as part of this DSS. Details of the LBP survey are provided in Section 6.0.

### **3.9        MERCURY**

Mercury is a naturally occurring metal. At normal temperatures it is a shiny, silver-white odourless liquid. When heated it becomes a colourless, odourless gas. Mercury is used to produce caustic soda and also is used in thermometers, dental fillings and batteries.

Based on CRA observations during the Site inspection, mercury-containing equipment was not observed at the Site.

### **3.10       SILICA**

Silica is a transparent to gray odourless powder or crystal. It occurs widely in nature as sand, quartz, flint and diatomite. It is used in the manufacture of glass, ceramics, abrasives, water treatment products, cosmetics, insecticides, paint and foods as well as in the drying of glassware and as a preservative for plant samples. Crystalline silica is also used in the production of cement, concrete, acoustic ceiling tiles, and ceramic tiles which are used for construction purposes.

Based on CRA observations during the Site inspection, silica is present in the stone, mortar, drywall, plaster, concrete, ceramic, and asphalt (containing rock and stone) observed at the Site. As such, there is a potential for silica dust to be generated by the grinding, cutting or demolition of any of the aforementioned building materials. Silica-containing construction materials were observed to be in good condition at the time of the Site inspection.

### 3.11 VINYL CHLORIDE

Vinyl chloride is a colorless, flammable gas at normal temperatures with a mild, sweet odour. It is used in the manufacturing of polyvinyl chloride (PVC), which is used in many plastic products including plastic pipes, wire and cable coatings and furniture upholstery.

Based on CRA observations during the Site inspection and historical Site knowledge, it is unlikely that vinyl chloride is present at the Site. However, vinyl chloride may be released if PVC pipes, wire coatings, or other plastic materials are exposed to excessive heat or if a fire occurs.

## **4.0 SURVEY OF POTENTIAL PCB CONTAINING EQUIPMENT**

### **4.1 GENERAL**

The Canadian PCB Regulations (SOR/2000-273) define PCB-containing equipment as any equipment that contains or is contaminated by a PCB liquid, mixture or solid that contains 50 mg/kg of PCBs per matrix material. PCBs are regulated in Quebec under the Regulation Respecting Hazardous Materials Q-2, r. 15.2, and also regulated in accordance with O. Reg. 362 *Waste Management - PCBs* and O. Reg. 347 (amended) *General - Waste Management*, if shipped to Ontario for disposal.

The survey consisted of examining potential PCB containing equipment including fluorescent light ballasts, electrical transformers, and capacitors. During the DSS, CRA recorded available information including the type of equipment, manufacturer, serial numbers, date stamps, electrical specifications and locations of potential PCB containing equipment, as applicable. The information was then researched using the Internet, telephone interviews with company representatives and published documents.

### **4.2 IDENTIFIED PCB-CONTAINING EQUIPMENT**

Based on CRA observations during the Site inspection and Site knowledge, no potential PCB-containing equipment was observed at the Site.

## 5.0 EQUIPMENT POTENTIALLY CONTAINING OZONE DEPLETING SUBSTANCES (ODS)

Ozone-depleting substances (ODS) degrade the ozone layer surrounding the planet and as such, refrigeration, air conditioning, and fire extinguishing equipment containing ODS are an environmental concern. R-22 refrigerant may still be used in HVAC units produced prior to 2010. The use of ODS is regulated by various regulations and disposal of ODS is regulated by waste management regulations. As of January 1, 2020, all production or import of R-22 refrigerant must cease, but recycled R-22 may still be used in HVAC units produced prior to 2010.

Based on CRA observations during the Site inspection, one exterior heat pump was present at the Site outside the south end of the building and may potentially contain ODS. The contents of the heat pump should be verified for the presence of ODS, prior to any removal or disposal of the unit.

## 6.0 LEAD BASED PAINT (LBP) SURVEY

### 6.1 GENERAL

No regulations or guidelines currently exist in the Province of Quebec which define when a coating is considered to be a lead-based coating with regards to a specific concentration. However, the Canadian Federal Government has been limiting the amount of lead in paint to 0.5 percent (5,000 ppm) since 1976. Paint used in buildings before 1960 probably contained elevated levels of lead. If the building was built after 1980, it is unlikely that interior paint contains elevated concentrations of lead; if it was built after 1992, exterior paint probably does not contain lead. The Surface Coating Materials Regulation (SOR/2005-109 dated April 19, 2005), pursuant to the 2005 Hazardous Products Act, revised the standard to define LBP as paint containing 0.06 percent (600 ppm) of lead. The general industry practice is to evaluate historic paint relative to the 0.5 percent (5,000 ppm) concentration.

The Regulation Respecting Occupational Health and Safety c. S-2.1, r.19.01 stipulates that workers are not to be exposed to airborne lead levels in exceedance of the time weighted average exposure (TWAE) or short term exposure limit (STEL) values outlined in the regulation. It is the responsibility of building owners and contractors to ensure that workers are not exposed to elevated concentrations of airborne lead during construction, renovation or demolition activities. The measures outlined in the above Quebec regulation (c. S-2.1, r.19-01), as well as the Ontario Ministry of Labour's (MOL) Guideline for Lead on Construction Projects (September 2004), should be implemented for proper personal protective equipment (PPE) and to control potential lead dust hazard during any maintenance, renovation or demolition work which involves the disturbance of a painted surface or other lead-containing materials. No regulations currently exist in Quebec for the disposal of lead-containing paint (regular landfill disposal is acceptable). However, materials with high proportions of lead are considered a hazardous material (e.g., lead batteries) and must be handled, stored, transported and disposed in accordance with appropriate provincial and federal regulations. In addition, lead-containing waste with certain concentrations is regulated as a hazardous waste in accordance with O. Reg. 347 *General - Waste Management*, if shipped to Ontario for disposal.

The purpose of the LBP survey is to determine if painted surfaces at the Site contain lead. The LBP sampling activities are performed in accordance with standard industry practice, whereby a utility knife is used to remove a paint chip (all layers of paint on a

surface). The paint chip is then placed in a sealable bag with a unique identification and sent to the laboratory for analysis. To prevent cross contamination between the collections of each sample the sampler changes his/her disposable latex gloves and wipes the blade of the knife using a disposable wet wipe.

## **6.2 LBP SAMPLING ACTIVITIES**

CRA collected five representative samples from homogeneous painted surfaces for potential lead identification. The painted surfaces that were sampled include: exterior walls, exterior shutters, exterior trim, interior floor, and interior walls/ceiling/trim. The grey exterior wall paint, the green exterior shutter paint, and the white exterior trim paint (indicative of all exterior paint) were all noted to be in good condition. The grey basement floor paint and the white interior wall/ceiling/trim paint (white paint located throughout basement and ground floor) were all noted to be in good condition. Lead paint sample locations are presented on Figures 1 and 2. A summary of the lead samples collected including paint location, colour, condition, estimated quantity, and analytical results, is presented in Table 1.

The samples were submitted under Chain-of-Custody (COC) protocol to EMSL Analytical Laboratories Inc. (EMSL) for analysis of lead content. The EMSL analytical report is provided in Appendix B.

## **6.3 ANALYTICAL RESULTS**

The analytical results of paint chip sampling indicate that elevated lead concentrations are present in the white interior wall/ceiling/trim paint (0.055 percent by weight), white exterior trim paint (0.030 percent by weight), and green exterior shutter paint (0.055 percent by weight). The lead paint chip analytical data is provided in Table 1. The approximate area of the white interior wall/ceiling/trim paint is 280 square metres. The approximate area of the white exterior trim paint is 15 square metres. The approximate area of the green exterior shutter paint is 20 square metres. The extent of each lead containing paint is shown on Figure 1.

It is noted that paint chip sampling procedures involved the collection of samples to the depth of the original surface in order to ensure that all layers of paint were included in the sample. Conventional sampling techniques do not allow for the separation or

distinction of individual layers of paint, therefore the concentration of lead reported by the laboratory is representative of all layers of paint on a given surface. The colour of paint described in the Table 1 is representative of the surface layer only.

## 7.0 ASBESTOS CONTAINING MATERIALS (ACM) SURVEY

### 7.1 GENERAL

In Quebec, asbestos containing material is defined as a product containing an asbestos concentration of at least 0.1 percent. The CSST regulates asbestos in the workplace. As asbestos is only considered a hazard when fibres become airborne, different types of ACM may remain on Site and in use indefinitely, provided the ACM is adequately maintained, and not allowed to release fibres into the air under normal use. Friable ACM products present more potential danger for airborne fibre release. Precautions may be required when renovating or demolishing areas where ACM is present.

The purpose of the ACM survey was to confirm the presence or absence of asbestos in certain suspect building materials. The sampling activities included procuring representative samples of various potential ACM for laboratory analysis. The sampling was done in compliance with CSST sampling requirements which are based on the United States Code of Federal Regulations, Title 40, Part 763 - Asbestos (40 CFR 763) and are generally similar to Ontario Regulation 278/05 requirements. For homogeneous materials (floor tiles, pipe insulations, pipe elbows, sprayed insulation, etc.), one or more sample was procured from each potential ACM. For heterogeneous materials (cement, plaster, stucco and other surfacing materials), a minimum number of samples were procured, based on area as follows:

- Surfaces that cover more than 5,000 ft<sup>2</sup>, a minimum of seven samples per type of material, per floor must be tested (walls and ceilings must be treated separately)
- Surfaces between 1,000 ft<sup>2</sup> and 5,000 ft<sup>2</sup>, a minimum of five samples per type of material, per floor must be tested
- Surfaces less than 1,000 ft<sup>2</sup>, a minimum of three samples per type of material, per floor must be tested

Should one of the samples test positive for ACM on one floor, surrounding materials with the same composition on the same floor are considered ACM. As such, CRA placed a stop positive clause in the analytical work to limit any unnecessary analysis.

In areas where finished surfaces required partial removal to inspect hidden materials (i.e. surface coverings on pipe insulation), small openings were made by CRA to allow for inspection of the underlying materials. Following inspection, all openings were

repaired to encapsulate the underlying material. CRA may visually inspect accessible areas above the ceilings (only where lay-in ceiling tiles exist) for the presence of thermal, acoustic or mechanical insulation, which could potentially contain asbestos. However, this survey does not account for any potential ACM which may be present within walls, below the flooring, within ceiling cavities, or in any other area, which were not accessible at the time of the DSS. Additional assessment of ACM may be required prior to any construction, demolition, renovation, or abatement activities at the Site.

## **7.2 ACM SAMPLING ACTIVITIES**

CRA collected 19 representative samples from five distinct types of building materials, which were suspected to contain asbestos including: drywall compound, vinyl floor tile, lay-in ceiling tile, decorative ceiling and wall finish, and decorative exterior siding. All potential ACM were observed to be in good condition at the time of the Site inspection. The ACM sampling locations are present on Figure 1 and 2. A summary of the potential ACM samples collected including sample location, material type and description, condition, estimated quantity, and analytical results are presented in Table 2.

All potential ACM samples were submitted under COC protocol to EMSL for analysis. The samples of potential friable ACM were analysed for type and percent fibre content using Polarized Light Microscopy (PLM). PLM samples that were reported to contain less than 1 percent asbestos were re-analysed using the more sensitive 1,000-point count method. Samples of potential non-friable ACM were analyzed for type and percent fibre content using PLM gravimetric analysis for non-friable organically bound material and verified using Transmission Electron Microscopy (TEM). The EMSL laboratory analytical report is provided in Appendix B.

## **7.3 ANALYTICAL RESULTS**

As indicated in Table 2, results of the potential ACM sample analysis indicate that asbestos was not detected in the samples collected at the Site, at a reporting limit of 0.1 percent.

## 8.0 ADDITIONAL OBSERVATIONS

As part of the DSS, CRA also identified areas of the Site that may potentially contain significant water intrusion/suspect mould growth, UFFI, fecal waste, and radioactive sources in smoke detectors.

### 8.1 WATER INTRUSION/MOULD GROWTH

Mould is a term that generally refers to several filamentous fungi. These fungi often appear as visible colonies on construction materials and food. Mould growth on building materials can impact air quality because mycelial fragments, spores, and mycotoxins can be dispersed in the air and may be inhaled. Significant water intrusion events and associated mould growth may pose a health risk to certain building occupants.

Based on CRA observations during the Site inspection, no significant water intrusion/suspect mould growth was identified at the Site.

### 8.2 UREA FORMALDEHYDE FOAM INSULATION (UFFI)

UFFI is a foam insulation typically comprised of urea-formaldehyde resin, compressed air and a foaming agent. UFFI became an important insulation product in Canada during the 1970s due to concerns about energy efficiency that led to efforts to improve home insulations. UFFI would off-gas formaldehyde for a short indefinite period of time after installation. Canadian authorities were concerned about the potential health implications of exposure to formaldehyde gas and the installation of UFFI was banned in 1980. It is highly unlikely that UFFI installed before the 1980 ban would produce a significant concentration of formaldehyde gas in the indoor environment.

Based on CRA observations during the Site inspection, UFFI was not identified at the Site.

### **8.3 FECAL WASTE**

Fecal waste in this report refers to the excrement discharged from the intestines of animals, rodents, birds, and bats. Fecal waste can carry human pathogens so ingestion and exposure to mucous membranes should be avoided.

Based on CRA observations during the Site inspection, no significant accumulation of fecal waste was identified at the Site.

### **8.4 RADIOACTIVE SOURCES IN SMOKE DETECTORS**

Smoke detectors may contain a small amount of the radioactive isotope Americium-241. The radiation dose from these detectors is considered very small when compared to natural background radiation and is not considered to be a health hazard. When these detectors were first introduced it was required that they be returned to the supplier or to the then Atomic Energy Control Board for disposal in Canada, but this requirement was later withdrawn.

Based on CRA observations during the Site inspection, smoke detectors with radioactive sources were not identified at the Site.

## 9.0 RECOMMENDATIONS

The following recommendations are based on the results of the DSS conducted at the Maison Charron (Asset No. 3669) located at 164 Rue Laurier in Gatineau, Quebec on August 17, 2010:

### General

1. The building owner should notify all employees involved with or potentially exposed to designated substances during any building maintenance, renovations, or demolition activities. A copy of this DSS Report should be made available to any employee, building maintenance personnel or outside contractors working in the building if they may be exposed to designated substances. The building owner should maintain a record of the notifications provided.
2. Specific materials identified as hazardous products in the Province of Quebec are regulated under the Regulation Respecting Hazardous Materials Q-2, r. 15.2, and includes handling, storing, labeling, and managing requirements for hazardous materials specific to Quebec. All hazardous products should also be handled, stored, labelled, and managed in accordance with Federal regulation SOR/86-304.
3. Additional assessment(s) may be required prior to any renovation or demolition activities to assess the potential presence of designated substances which were not accessible or part of CRA's scope of work during the DSS.

### Benzene

4. Maintenance, renovation or demolition contractors should not use excessive heat (e.g., welding or grinding) to remove PVC piping, wire coatings, or other plastic materials as heat may release benzene or benzene-containing compounds.

### Lead

5. The measures outlined in the Quebec regulation c. S-2.1, r.19-01, as well as the Guideline for Lead on Construction Projects (MOL, September 2004), should be implemented for proper PPE and to control potential lead dust hazard during any maintenance, renovation or demolition work which involves the disturbance of a painted surface or other lead-containing materials. No regulations currently exist in Quebec for the disposal of lead-containing paint (regular landfill disposal is acceptable). However, materials with high proportions of lead are considered a hazardous material (e.g., lead batteries) and must be handled, stored, transported and disposed in accordance with appropriate provincial and federal regulations. In addition, lead-containing waste with certain concentrations is regulated as a

hazardous waste in accordance with O. Reg. 347 *General - Waste Management*, if shipped to Ontario for disposal.

### **Silica**

6. The measures outlined in the Regulation Respecting Occupational Health and Safety c. S-2.1, r.19.01, as well as the "Guideline - Silica on Construction Projects" (MOL, September 2004), should be implemented for proper PPE and to control the silica dust hazard when the potential for creating airborne, silica-containing dust arises from such processes as demolishing, cutting, grinding, or disturbance of silica containing building materials.

### **Vinyl Chloride**

7. Maintenance, renovation or demolition contractors should not use excessive heat (e.g., welding or grinding) to remove PVC piping, wire coatings, or other plastic materials as heat may release vinyl chloride.

### **Ozone-Depleting Substances**

8. ODS-containing equipment at the Site should be maintained by qualified refrigeration service personnel. If removed from service, all ozone depleting refrigerants must be removed by an individual licensed to perform such work in accordance with the Ozone Depleting Substance Regulation 1998 SOR/99-7 under the Canadian Environmental Protection Act, prior to the disposal of any ODS containing equipment. ODS waste should be disposed of in accordance with waste management regulations.

## **9.1 IMMEDIATE RECOMMENDATIONS**

Based on Site conditions, Site knowledge, and historical/current building use regarding designated substance and hazardous materials, no immediate abatement or management actions are required. In the event that NCC plans to conduct Site maintenance, renovation or demolition activities that may disturb designated substances or hazardous materials, notification, management plans and/or abatement activities should be conducted to prevent releases and exposures, as appropriate.

## 10.0 LIMITATIONS

The DSS was generally a non-destructive survey. Observations made are limited to designated substances and hazardous materials which were evident during the Site inspection. This DSS does not account for all designated substances that may be present within walls, below the flooring, or within ceiling cavities.

The following items are not generally inspected or sampled by CRA since these were not readily accessible or practical to safely access for inspection or sampling:

- Components or wiring within motors, lights, or other electrical systems, equipment, wiring, and fixtures
- Materials present within walls, below flooring, within ceiling cavities, or in any other area which was not accessible at the time of the Site inspection
- Materials that if sampled might compromise the integrity of the building or its components including roofing materials, interior of fire doors, gasket materials, below-grade structures, and window caulking

This DSS was conducted in a manner consistent with the level of care and skill exercised by members of the profession, and was based upon information made available to CRA representatives at the time of this survey. CRA has analysed and evaluated the information collected during this investigation using applicable engineering and industrial hygiene techniques and principles.

Reliance or use of this report by any third party without explicit authorization from CRA and NCC does not make said third party a third party beneficiary to CRA's contract with NCC. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

As applicable, the owner/operator of the subject Site is responsible for corrective or remedial action required and disclosure of any information obtained during this assessment or information contained in this report.

All of Which is Respectfully Submitted

CONESTOGA ROVERS & ASSOCIATES

A handwritten signature in black ink, appearing to read 'T. Saunders', written in a cursive style.

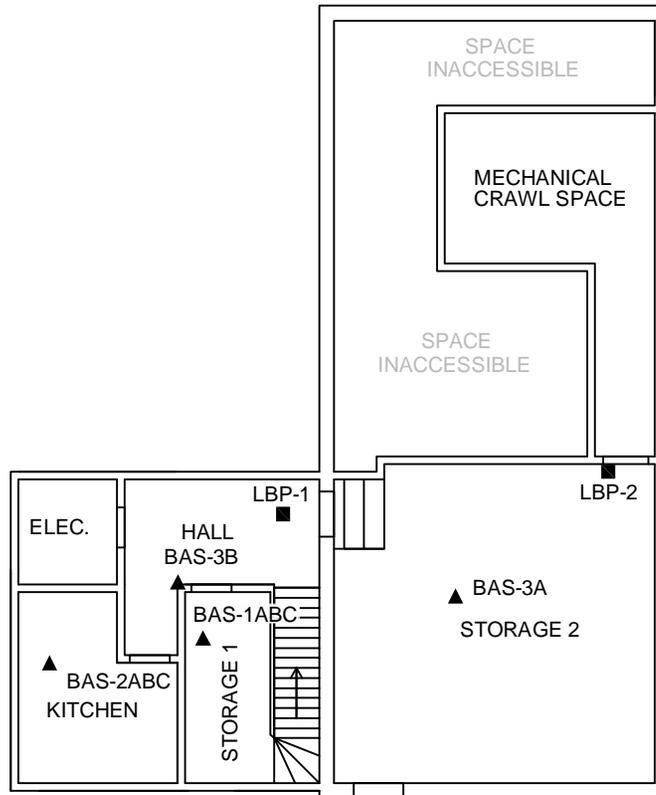
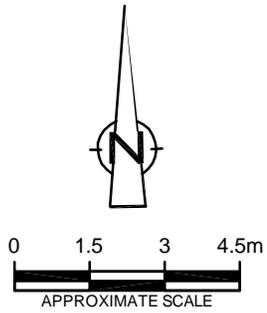
Trevor Saunders

A handwritten signature in black ink, appearing to read 'Fred Taylor', written in a cursive style.

Fred Taylor, P.Eng.

A handwritten signature in black ink, appearing to read 'Joseph R. Drader', written in a cursive style.

Joseph R. Drader, P.E.



LEGEND

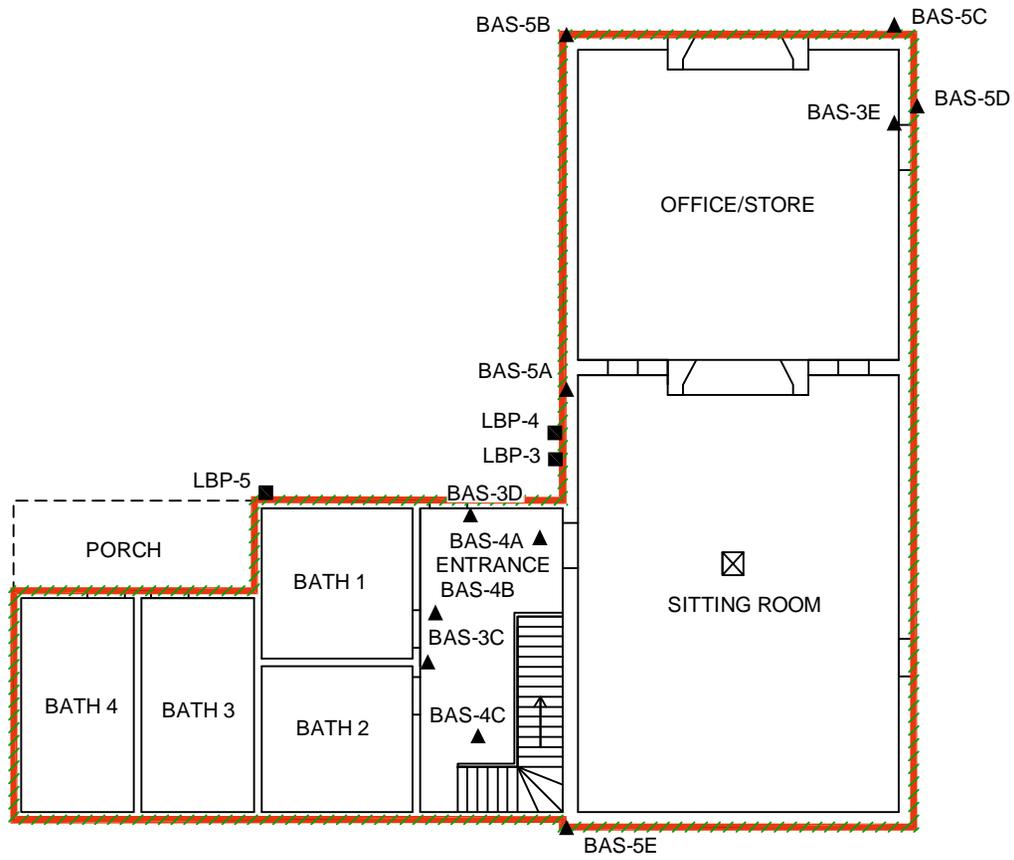
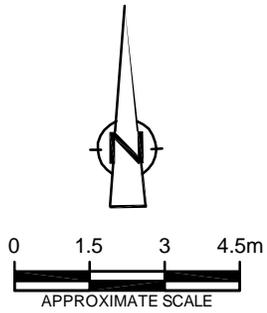
- ▲ BAS-1A BULK ASBESTOS SAMPLE LOCATION
- LBP-1 LEAD PAINT CHIP SAMPLE LOCATION

NOTE:

1. REFER TO TABLE 1 IN CONJUNCTION WITH THIS FIGURE FOR EXTENT OF LEAD BASED PAINT FOR SAMPLES LBP-2 (WALLS AND CEILING)



figure 1  
 SAMPLE LOCATIONS - BASEMENT  
 ASSET No. 3669  
 MAISON CHARRON  
*National Capital Commission*



**LEGEND**

- ▲ BAS-5A BULK ASBESTOS SAMPLE LOCATION
- LBP-3 LEAD PAINT CHIP SAMPLE LOCATION
- //// LEAD CONTAINING PAINT - SHUTTERS
- LEAD CONTAINING PAINT - TRIM

**NOTE:**  
1. REFER TO TABLE 1 IN CONJUNCTION WITH THIS FIGURE FOR EXTENT OF LEAD BASED PAINT FOR SAMPLES LBP-2 (WALLS AND CEILING)



figure 2  
SAMPLE LOCATIONS - GROUND FLOOR  
ASSET No. 3669  
MAISON CHARRON  
*National Capital Commission*

TABLE 1  
 SUMMARY OF LEAD PAINT SAMPLES  
 MAISON CHARRON  
 ASSET NO. 3669  
 GATINEAU, QUEBEC

Sample Identification	Paint Location	Surface	Description	RDL % wt	Lead Concentration % wt	Condition	Extent of LBP (approx. sq. metre)
3669-LBP-1	Basement	Floor	Grey	0.037	< 0.037	Good	NA
3669-LBP-2	Basement	Walls, Trim, Ceiling		0.011	0.055	Good	280
	Office/Store and Sitting Room	Walls	White				
	Ground Floor	Ceiling					
3669-LBP-3	Exterior	Trim	White	0.010	0.030	Good	15
3669-LBP-4	Exterior	Shutters	Green	0.037	0.055	Good	20
3669-LBP-5	Exterior	Wall	Grey	0.042	< 0.042	Good	NA

RDL - Relative Detection Limit

TABLE 2  
SUMMARY OF BULK ASBESTOS SAMPLES  
MAISON CHARRON  
ASSET NO. 3669  
GATINEAU, QUEBEC

Sample Identification	Location	Material Sampled	Description	Asbestos Content % and type	Condition	Extent of Asbestos (approx. sq. metre)
3669-BAS-1A	Storage # 1 and Electrical Room (Basement)	Ceiling Tile	2' x 2' (Tan/White)	None Detected	Good	NA
3669-BAS-1B	Storage # 1 and Electrical Room (Basement)	Ceiling Tile	2' x 2' (Tan/White)	None Detected	Good	NA
3669-BAS-1C	Storage # 1 and Electrical Room (Basement)	Ceiling Tile	2' x 2' (Tan/White)	None Detected	Good	NA
3669-BAS-2A	Kitchen (Basement)	Vinyl Floor Tile	12" x 12" (Grey)	None Detected	Good	NA
3669-BAS-2B	Kitchen (Basement)	Vinyl Floor Tile	12" x 12" (Grey)	None Detected	Good	NA
3669-BAS-2C	Kitchen (Basement)	Vinyl Floor Tile	12" x 12" (Grey)	None Detected	Good	NA
3669-BAS-3A	Storage Room 2 (Basement)	Drywall Compound	Ceiling	None Detected	Good	NA
3669-BAS-3B	Basement Hall	Drywall Compound	Wall	None Detected	Good	NA
3669-BAS-3C	Entrance Hall (Ground Floor)	Drywall Compound	Wall	None Detected	Good	NA
3669-BAS-3D	Entrance Door (Ground Floor)	Drywall Compound	Wall	None Detected	Good	NA
3669-BAS-3E	Office/Store (Ground Floor)	Drywall Compound	Wall	None Detected	Good	NA
3669-BAS-4A	Entrance (Ground Floor)	Stipple Coat	Ceiling	None Detected	Good	NA
3669-BAS-4B	Entrance (Ground Floor)	Stipple Coat	Ceiling	None Detected	Good	NA
3669-BAS-4C	Entrance (Ground Floor)	Stipple Coat	Ceiling	None Detected	Good	NA

**NOTES:**

None Detected - Asbestos was not detected in the sample

Not Analyzed- Laboratory was directed to use the positive stop method, whereby each sample in a set of samples is analyzed until asbestos is detected. If or when asbestos is detected no other samples in that set are analysed.

<1%/None Detected and/or % asbestos - Asbestos fibers were observed in the sample below the accuracy detection limit of 1%, however re-analysis using the more sensitive 1000 point count method indicated that asbestos is not present and/or is present at the % indicated.

TABLE 2  
SUMMARY OF BULK ASBESTOS SAMPLES  
MAISON CHARRON  
ASSET NO. 3669  
GATINEAU, QUEBEC

Sample Identification	Location	Material Sampled	Description	Asbestos Content % and type	Condition	Extent of Asbestos (approx. sq. metre)
3669-BAS-5A	Exterior	Textured Finish	Wall	None Detected	Good	NA
3669-BAS-5B	Exterior	Textured Finish	Wall	None Detected	Good	NA
3669-BAS-5C	Exterior	Textured Finish	Wall	None Detected	Good	NA
3669-BAS-5D	Exterior	Textured Finish	Wall	None Detected	Good	NA
3669-BAS-5E	Exterior	Textured Finish	Wall	None Detected	Good	NA

**NOTES:**

None Detected - Asbestos was not detected in the sample

Not Analyzed- Laboratory was directed to use the positive stop method, whereby each sample in a set of samples is analyzed until asbestos is detected. If or when asbestos is detected no other samples in that set are analysed.

<1%/None Detected and/or % asbestos - Asbestos fibers were observed in the sample below the accuracy detection limit of 1%, however re-analysis using the more sensitive 1000 point count method indicated that asbestos is not present and/or is present at the % indicated.

APPENDIX A  
PHOTOGRAPH LOG



Photo No. 1: Building exterior, facing northwest



Photo No. 2: Building exterior, facing south.

**DESIGNATED SUBSTANCE SURVEY**  
**ASSET NO: 3669**  
**MAISON CHARRON**  
*National Capital Commission*





Photo No. 3: Building exterior, facing east.



Photo No. 4: Grey paint, floor in basement, 3669-LBP-1.



**DESIGNATED SUBSTANCE SURVEY**  
**ASSET NO: 3669**  
**MAISON CHARRON**  
*National Capital Commission*



Photo No. 5: White paint, crawl space door, 3669-LBP-2.



Photo No. 6: White paint, exterior window trim, 3669-LBP-3.

**DESIGNATED SUBSTANCE SURVEY**

**ASSET NO: 3669**

**MAISON CHARRON**

***National Capital Commission***





Photo No. 7: Green paint, exterior shutters, 3669-LBP-4.



Photo No. 8: Grey paint, exterior wall, 3669-LBP-5.



**DESIGNATED SUBSTANCE SURVEY**  
**ASSET NO: 3669**  
**MAISON CHARRON**  
*National Capital Commission*



Photo No. 9: Speckled ceiling tile, storage room 1, 3669-BAS-1ABC.



Photo No. 10: Grey vinyl floor tile, kitchen (basement), 3669-BAS-2ABC.

**DESIGNATED SUBSTANCE SURVEY**

**ASSET NO: 3669**

**MAISON CHARRON**

***National Capital Commission***





Photo No. 11: Drywall compound, basement storage 2, 3669-BAS-3A.



Photo No. 12: Drywall compound, basement hall, 3669-BAS-3B.

**DESIGNATED SUBSTANCE SURVEY**

**ASSET NO: 3669**

**MAISON CHARRON**

***National Capital Commission***





Photo No. 13: Drywall compound, entrance hall (ground floor), 3669-BAS-3C.



Photo No. 14: Drywall compound, entrance door (ground floor), 3669-BAS-3D.

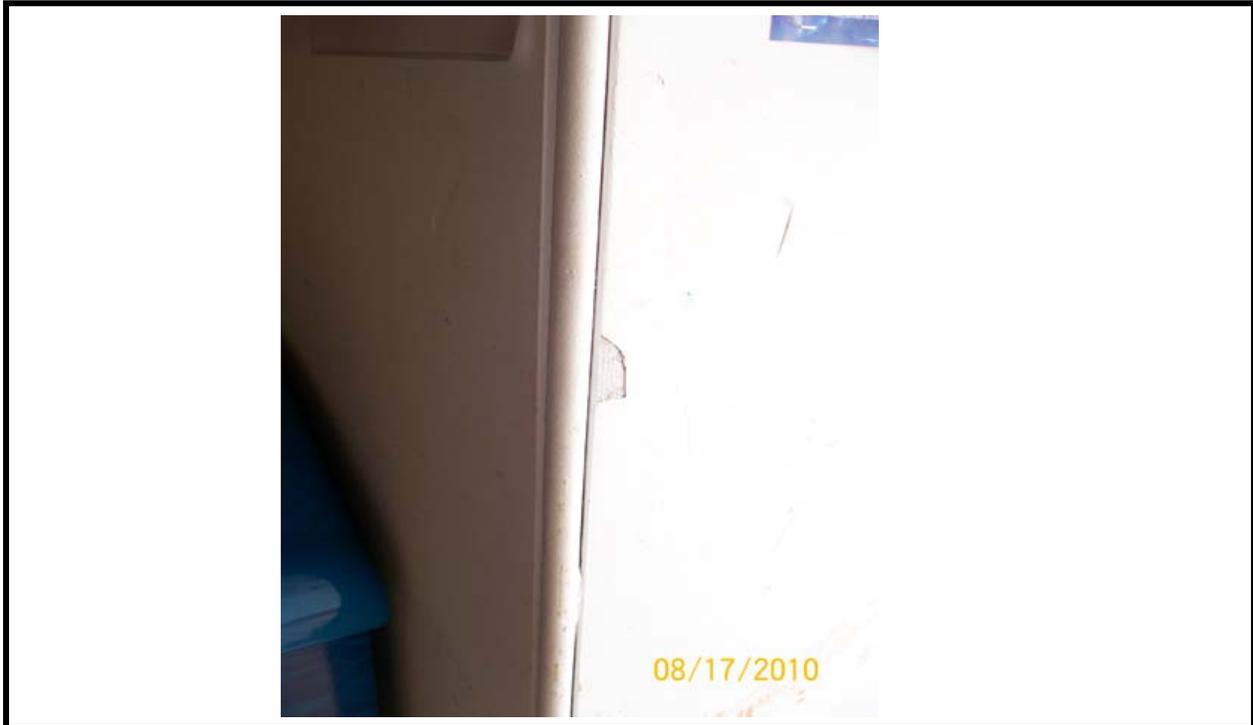
**DESIGNATED SUBSTANCE SURVEY**

**ASSET NO: 3669**

**MAISON CHARRON**

***National Capital Commission***





**Photo No. 15: Drywall compound, office/storage (ground floor), 3669-BAS-3E.**



**Photo No. 16: Stipple coat ceiling finish, entrance (ground floor), 3669-BAS-4ABC.**

**DESIGNATED SUBSTANCE SURVEY**

**ASSET NO: 3669**

**MAISON CHARRON**

***National Capital Commission***





Photo No. 17: Textured finish, exterior wall, 3669-BAS-5ABCDE.



Photo No. 18: Heat pump, south side of building, potentially contains ODS.

**DESIGNATED SUBSTANCE SURVEY**

**ASSET NO: 3669**

**MAISON CHARRON**

***National Capital Commission***



APPENDIX B  
LABORATORY REPORTS



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislabs@emsl.com

Attn: **Jennifer Balkwill**  
**Conestoga-Rovers & Associates, Ltd.**  
**651 Colby Drive**  
**Waterloo, Ontario N2V1C2**

Customer ID: CRAC22  
Customer PO: 20-011927  
Received: 08/23/10 10:20 AM  
EMSL Order: 161014189

Fax: Project: **72145-002-08** Phone: (519) 884-0510

EMSL Proj:  
Analysis Date: 8/30/2010

**Test Report: Asbestos Analysis of Bulk Materials for Quebec IRSST Method 244-2 via EPA600/R-93/116 Method**

Client Sample ID: **3669-BAS-01A**

Lab Sample ID: 161014189-0001

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	Tan/White	75%	25%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-01B**

Lab Sample ID: 161014189-0002

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	Tan/White	70%	30%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-01C**

Lab Sample ID: 161014189-0003

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	Tan/White	70%	30%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-03A**

Lab Sample ID: 161014189-0004

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	White	0%	100%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-03B**

Lab Sample ID: 161014189-0005

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	White	0%	100%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-03C**

Lab Sample ID: 161014189-0006

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	White	0%	100%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-03D**

Lab Sample ID: 161014189-0007

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	White	0%	100%	<b>None Detected</b>	

Samples analyzed by EPA 600/R-93/116 consistent with IRSST Method 244-2. The estimated limit of detection for non-detect samples is <0.1%. Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the US government. Analysis performed by EMSL Indianapolis (NVLAP #200188-0). Page 1

**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislabs@emsl.co

Attn: Jennifer Balkwill  
Conestoga-Rovers & Associates, Ltd.

EMSL Proj: 72145-002-08

**Test Report: Asbestos Analysis of Bulk Materials for Quebec IRSST Method 244-2 via EPA600/R-93/116**Client Sample ID: **3669-BAS-03E**

Lab Sample ID: 161014189-0008

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	White	0%	100%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-04A**

Lab Sample ID: 161014189-0009

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	White	0%	100%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-04B**

Lab Sample ID: 161014189-0010

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	White	0%	100%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-04C**

Lab Sample ID: 161014189-0011

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/27/2010	White	0%	100%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-02A**

Lab Sample ID: 161014189-0012

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	8/30/2010	Gray	0.0000%	100.0000%	<b>None Detected</b>	
TEM Grav. Reduction	8/30/2010	Gray	0.0000%	100.00%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-02B**

Lab Sample ID: 161014189-0013

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	8/30/2010	Gray	0.0000%	100.0000%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-02C**

Lab Sample ID: 161014189-0014

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	8/30/2010	Gray	0.0000%	100.0000%	<b>None Detected</b>	

Samples analyzed by EPA 600/R-93/116 consistent with IRSST Method 244-2. The estimated limit of detection for non-detect samples is <0.1%. Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the US government. Analysis performed by EMSL Indianapolis (NVLAP #200188-0).



**Test Report: Asbestos Analysis of Bulk Materials for Quebec IRSST Method 244-2 via EPA600/R-93/116**

Client Sample ID: **3669-BAS-05A**

Lab Sample ID: 161014189-0015

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	8/30/2010	Gray	0.0000%	100.0000%	<b>None Detected</b>	
TEM Grav. Reduction	8/30/2010	Gray	0.0000%	100.00%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-05B**

Lab Sample ID: 161014189-0016

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	8/30/2010	Gray	0.0000%	100.0000%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-05C**

Lab Sample ID: 161014189-0017

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	8/30/2010	Gray	0.0000%	100.0000%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-05D**

Lab Sample ID: 161014189-0018

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	8/30/2010	Gray	0.0000%	100.0000%	<b>None Detected</b>	

Client Sample ID: **3669-BAS-05E**

Lab Sample ID: 161014189-0019

Sample Description:

Test	Analyzed Date	Color	Non Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	8/30/2010	Gray	0.0000%	100.0000%	<b>None Detected</b>	

PLM:  
PLM EPA NOB:  
TEM EPA NOB:

Analyst(s)  
\_\_\_\_\_  
Craig Nixon  
Margaret Phillips  
Richard Harding

Richard Harding, Laboratory Manager  
or other approved signatory

Samples analyzed by EPA 600/R-93/116 consistent with IRSST Method 244-2. The estimated limit of detection for non-detect samples is <0.1%. Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the US government. Analysis performed by EMSL Indianapolis (NVLAP #200188-0).



**EMSL Analytical, Inc.**

2001 East 52nd St., Indianapolis, IN 46205

Phone: (317) 803-2997 Fax: (317) 803-3047 Email: indianapolislaboratory@emsl.com

Attn: **Jennifer Balkwill**  
**Conestoga-Rovers & Associates, Ltd.**  
**651 Colby Drive**  
**Waterloo, ON, CN N2V1C2**

Customer ID: CRAC22  
Customer PO:  
Received: 08/23/10 10:20 AM  
EMSL Order: 161014383

Fax: Phone: (519) 884-0510  
Project: **72145-002-08**

EMSL Proj:

**Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B\*/7000B)**

Lab ID:	Analyzed	RDL	Lead Concentration	Notes
0001	8/27/2010	0.037 % wt	<0.037 % wt	
<b>Client Sample</b> 3669-LBP-1				<b>Collected:</b> 8/17/2010
0002	8/27/2010	0.011 % wt	0.055 % wt	
<b>Client Sample</b> 3669-LBP-2				<b>Collected:</b> 8/17/2010
0003	8/27/2010	0.010 % wt	0.030 % wt	
<b>Client Sample</b> 3669-LBP-3				<b>Collected:</b> 8/17/2010
0004	8/27/2010	0.037 % wt	0.055 % wt	
<b>Client Sample</b> 3669-LBP-4				<b>Collected:</b> 8/17/2010
0005	8/27/2010	0.042 % wt	<0.042 % wt	
<b>Client Sample</b> 3669-LBP-5				<b>Collected:</b> 8/17/2010

Initial report from 08/30/2010 07:18:17

Doug Wiegand, Laboratory Manager  
or other approved signatory

Reporting limit is 0.01 % wt. The QC data associated with these sample results included in this report meet the method quality control requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. 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.

\* slight modifications to methods applied Samples received in good condition unless otherwise noted. Quality Control Data associated with this sample set is within acceptable limits, unless otherwise noted

Samples analyzed by EMSL Analytical, Inc. 2001 East 52nd St., Indianapolis IN AIHA-LAP, LLC--ELLAP 157245, OH E10040

# CHAIN OF CUSTODY RECORD

161014189

**CRA**

CONESTOGA-ROVERS & ASSOCIATES  
651 Colby Drive  
Waterloo, Ont. N2V 1C2 (519)884-0510

SHIPPED TO (Laboratory Name):

EMSL

REFERENCE NUMBER:

72145-002-08

SAMPLER'S SIGNATURE: *[Signature]* PRINTED NAME: Trevor Saunders

SEQ. No.	DATE	TIME	SAMPLE No.	SAMPLE TYPE	No. OF CONTAINERS	PARAMETERS				REMARKS
						Lead	PLM	PLM NOB		
	8/17/10		31669-LBP-1		1	X				5 Day TAT  See Report to Jen Balkwill
	↓		LBP-2		1	X				
	↓		LBP-3		1	X				
	↓		LBP-4		1	X				
	↓		LBP-5		1	X				
	8/17/10		31669-BAS-1ABC		3		X			See attached Transmittal
	↓		2ABC		1			X		
	↓		3ABCDE		1		X			
	↓		4ABC		1		X			
	↓		5ABCDE		1			X		

TOTAL NUMBER OF CONTAINERS: 24 HEALTH/CHEMICAL HAZARDS: \_\_\_\_\_

RELINQUISHED BY: <u><i>[Signature]</i></u>	DATE: <u>8/20/10</u>	RECEIVED BY: <u><i>[Signature]</i></u>	DATE: <u>8/23/10</u>
① _____	TIME: _____	② _____	TIME: <u>10:20fx</u>
RELINQUISHED BY: _____	DATE: _____	RECEIVED BY: _____	DATE: _____
② _____	TIME: _____	③ _____	TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED BY: _____	DATE: _____
③ _____	TIME: _____	④ _____	TIME: _____

METHOD OF SHIPMENT: Fed-ex WAY BILL No. \_\_\_\_\_

White -Fully Executed Copy Yellow -Receiving Laboratory Copy Pink -Shipper Copy Goldenrod -Sampler Copy	SAMPLE TEAM: <u>T.S.</u>	RECEIVED FOR LABORATORY BY: _____ No <b>35932</b> DATE: _____ TIME: _____
--	--------------------------	---

161014189