



Public Works and Government Services Canada

Requisition No: EZ113-210851

DRAWINGS & SPECIFICATIONS
for

R.111921.001
RCMP Teslin, YK
Hazardous Building Material Abatement Project

APPROVED BY:

Regional Manager, ____

Date

Construction Safety Coordinator

Date

TENDER:

Project Manager

30-07-2020_____
Date

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Reports

- 1 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “Hazardous Building Materials Assessments, RCMP Detachment, Teslin, YT” dated April 9, 2015, prepared for Public Works and Government Services Canada.
- 2 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “Hazardous Building Materials Assessments, RCMP Detachment, Teslin, YT” dated November 3, 2016, prepared for Public Works and Government Services Canada.
- 3 Stantec Consulting Ltd. Report for Project No. 123220912 entitled “Pre-Demolition Hazardous Building Materials Assessment, RCMP M Division Former Detachment, Johnson Road, Teslin, YT” dated October 23, 2017, prepared for Public Services and Procurement Canada.
- 4 Stantec Consulting Ltd. Report for Project No. 123221201.200.100 entitled “Asbestos-Containing Materials Re-Assessment, RCMP M Division Former Detachment, Johnson Road, Teslin, YT” dated March 2019, prepared for Public Services and Procurement Canada.
- 5 Antiquity Environmental Consulting Ltd. Report entitled “Hazardous Materials Limited Report, RCMP Detachment House, Teslin, Yukon” dated August 2019, prepared for Air Care Yukon.
- 6 ALS Environmental Analytical Report entitled “Certificate of Analysis” dated April 3, 2020, prepared for CMS Construction Management Services (supplemental lead paint sampling).

- 7 CMS Construction Management Services Site Visit Report entitled “Old Teslin RCMP Detachment Haz Mat Abatement & Building Demolition” dated May 13, 2020, prepared for Royal Canadian Mounted Police M Division.
- 8 EMSL Canada Inc. Analytical Report entitled “Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy” dated May 22, 2020, prepared for CMS Construction Management Services (supplemental asbestos bulk sampling).
- 9 ALS Environmental Analytical Report entitled “Certificate of Analysis” dated May 26, 2020, prepared for CMS Construction Management Services (supplemental lead paint and leachate sampling).

Appendix B

Forms

- 1 PWGSC Preliminary Hazard Assessment Procedure Checklist

END OF SECTION

Part 1 Summary of Work

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- .1 Work of this Contract consists of execution of hazardous building materials abatement within RCMP Building 823223 Old Detachment, located in Teslin, YT; and further identified as the Work, and summarized as follows:
 - .1 Remove and dispose of approximately 15 linear feet of 10"x10" square ducting with asbestos-containing brown duct mastic from the basement
 - .2 Remove and dispose of approximately 3,530 square feet of asbestos-containing cement shingles on the exterior siding of the structure
 - .1 Asbestos-containing cement siding shingles are present beneath pressboard paper lap siding, which is attached to 2"x2" strapping (at 2' o.c.), with 1.5" beadboard between strapping. Siding layers that are directly attached to, and/or directly in contact with asbestos-containing cement shingles will require appropriate abatement precautions to be employed during removal
 - .3 Remove and dispose of asbestos-containing cement panel from the exterior lower/foundation walls, including the following:
 - .1 Base of the wooden entrance staircase (approximately 30 square feet)
 - .2 Around the concrete foundation of the cell block addition (approximately 150 square feet)
 - .4 Remove and dispose of approximately 650 square feet of asbestos-containing grey textured paint from concrete floor in the garage
 - .5 Remove and dispose of approximately 250 square feet of asbestos-containing texture coating from the ceiling of Room U-8
 - .6 Remove and dispose of approximately 165 square feet of asbestos-containing orange sheet flooring from the kitchen
 - .1 This asbestos-containing sheet flooring is concealed beneath a layer of non-asbestos-containing sheet flooring and plywood subfloor
 - .7 Remove and dispose of approximately 40 square feet of asbestos-containing orange sheet flooring from the upstairs bathroom
 - .8 Remove and dispose of approximately 50 square feet of asbestos-containing tan sheet flooring from the detachment stair landing
 - .9 Remove and dispose of asbestos-containing tan sheet flooring from approximately 15 stair risers (8" height x 36" width)
 - .10 Remove and dispose of approximately 100 square feet of asbestos-containing tan sheet flooring from the cell block entry (top and bottom landing of stairs)
 - .11 Remove and dispose of approximately 70 square feet of asbestos-containing tan sheet flooring from the front foyer
- .2 Remove and dispose of other hazardous building materials in preparation for building demolition, including, but not limited to:
 - .1 Lead and lead-containing paints – limited removal expected, if any. Only necessary to the extent required to complete removal of other hazardous building materials

- .2 Three fluorescent light fixtures in the garage that have:
 - .1 Fluorescent light tubes with mercury vapour
 - .2 Potential PCB-containing ballasts
- .3 One air handling unit with refrigerants that are expected to be ozone-depleting substances.

1.2 OCCUPANCY

- .1 The building will be unoccupied during execution of the Work.
- .2 Co-operate with Departmental Representative in scheduling operations to minimize conflict and to facilitate RCMP usage of premises or property, where applicable.

1.3 CONTRACTOR'S USE OF PREMISES

- .1 Contractor will have access to the site for the time needed to complete the Work before December 31, 2020.
- .2 Reasonable space will be provided for Contractor's use (bin storage, parking), to be confirmed with Departmental Representative.

1.4 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy of each document as follows, where applicable:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Change Orders.
 - .5 Other Modifications to Contract.
 - .6 Field Test Reports.
 - .7 Copy of Approved Work Schedule.
 - .8 Health and Safety Plan and Other Safety Related Documents.
 - .9 Environmental Protection Plan, relevant environmental permits and other environment related documents.
 - .10 Other documents as specified.

Part 2 Work Restrictions

- .1 Execute work with least possible interference or disturbance to normal use of premises.
- .2 Where security is reduced by work, provide temporary means to maintain security.
- .3 Contractor to supply their own sanitary facilities.
- .4 Power and water are limited. Contractor is advised to provide their own power and water.
- .5 Construct barriers in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.

- .6 Security Requirements: refer to Section 01 14 10 - Security Requirements.
- .7 Hours of work:
 - .1 The Work is to be performed during regular work days (Monday to Friday) between the hours of 08:00 to 18:00. 10:00 to 18:00 is acceptable for weekend work.
- .8 Access into Facility:
 - .1 No access will be permitted into unauthorized buildings unless approved by the Departmental Representative.

Part 3 Requirements due to COVID-19

- .1 Contractor is to be responsible for costs of all labour, expenses, accommodations, meals and/or materials, etc. required to comply with current recommended or otherwise legislated requirements for minimizing the spread of COVID-19, including, but not limited to:
 - .1 Requirements for quarantine of workers, if entering the Yukon from other countries, provinces and/or territories where the Yukon Government has implemented such requirements.
 - .2 Requirements for physical distancing – during travel and while on-site.
 - .3 Requirements for personal protective equipment – supply, use and disposal.

Part 4 Construction Work Schedule

- .1 Provide schedule within two (2) weeks of contract award to complete the Work before December 31, 2020.
- .2 Submittals:
 - .1 Refer to Section 01 33 00 Submittal Procedures.
- .3 Project Scheduling Reporting:
 - .1 Update Project Schedule on at least a weekly basis reflecting activity changes and completions, as well as activities in progress.
 - .2 Include as part of Project Schedule, narrative report identifying Work status to date, comparing current progress to baseline, presenting current forecasts, defining problem areas, anticipated delays and impact with possible mitigation.
- .4 Project Meetings:
 - .1 Discuss Project Schedule at meetings to be called by the Departmental Representative, identify activities that are behind schedule and provide measures to regain slippage. Activities considered behind schedule are those with projected start or completion dates later than current approved dates shown on baseline schedule.
 - .2 Before submitting first progress claim submit breakdown of Contract price in detail as directed by Departmental Representative and aggregating contract price.

After approval by Departmental Representative cost breakdown will be used as basis for progress payments.

Part 5 Health and Safety

- .1 Specified in Section 01 35 33 - Health and Safety Requirements.

Part 6 Environmental Procedures

- .1 Specified in Section 01 35 43 – Environmental Procedures.
- .2 Fires and burning of rubbish on site not permitted.
- .3 Do not dispose of waste or volatile materials such as oil, paint thinner or mineral spirits into waterways, storm or sanitary systems.
- .4 Under no circumstances dispose of rubbish or waste materials on property or in RCMP waste bins.

Part 7 Regulatory Requirements

7.1 REFERENCES AND CODES

- .1 Perform Work in accordance with National Building Code of Canada including all amendments up to tender closing date and other codes of territorial or local application provided that in case of conflict or discrepancy, more stringent requirements apply.
- .2 Meet or exceed requirements of:
 - .1 Contract documents.
 - .2 Specified standards, codes and referenced documents.

Part 8 Quality Control

8.1 INSPECTION

- .1 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Departmental Representative instructions, or applicable standards or regulations.
- .2 Departmental Representative may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction.

8.2 REJECTED WORK

- .1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by

Departmental Representative as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.

Part 9 Temporary Utilities

9.1 TEMPORARY VENTILATION

- .1 Ventilating:
 - .1 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during abatement.
 - .2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
 - .3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
 - .4 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
- .2 Maintain strict supervision of operation of temporary ventilating equipment to:
 - .1 Conform with applicable codes and standards.
 - .2 Enforce safe practices.
 - .3 Prevent abuse of services.
 - .4 Prevent damage to finishes.

9.2 TEMPORARY POWER AND LIGHT

- .1 Provide own electrical lines from source, as necessary to complete the work.

9.3 TEMPORARY COMMUNICATION FACILITIES

- .1 Conform to Section 01 14 10 Security Requirements.

9.4 FIRE PROTECTION

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by governing codes, regulations and bylaws.

Part 10 Construction Facilities

10.1 LIFTING EQUIPMENT

- .1 Where required, provide, operate and maintain lifting equipment and manpower required for moving of heavy products in accordance with applicable standards and regulations.

10.2 SITE STORAGE/LOADING

- .1 Confine work and operations of employees to areas specified in Contract Documents. Do not unreasonably encumber premises with products.

10.3 CONSTRUCTION PARKING

- .1 Parking will be available where needed, as directed by the Departmental Representative.

10.4 CONTRACTOR'S SITE OFFICE

- .1 Provide office to accommodate Contractor's operations, if required.
- .2 Provide a clearly marked and fully stocked first-aid case in a readily available location in accordance with YT OHS Reg. requirements.

10.5 EQUIPMENT AND TOOLS STORAGE

- .1 Provide and maintain, in a clean and orderly condition, lockable secure lock box for storage of tools and materials, as necessary.

10.6 SANITARY FACILITIES

- .1 Contractor is required to supply their own sanitary facilities.

10.7 CONSTRUCTION SIGNS

- .1 If signage is requested or required, format, location and quantity of site signs and notices to be approved by Departmental Representative.
- .2 Signs and notices for safety or instruction to be in English language, French language and Tlingit language, or commonly understood graphic symbols.
- .3 Maintain signboards, signs and notices for duration of project.
- .4 Remove signs from site at completion of project or as directed by Departmental Representative.

Part 11 Temporary Barriers and Enclosures

11.1 ENCLOSURE OF WORK AREA

- .1 Provide temporary dust barriers around work areas where dust or harmful vapours are being generated. Exhaust dust and vapours to exterior.

Part 12 Cleaning

12.1 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris.
- .2 Remove waste materials from site at regularly scheduled times or dispose of as directed by Departmental Representative and/or in accordance with applicable transportation and disposal regulations and guidelines.
- .3 Provide on-site containers for collection of waste materials and debris.

- .4 Provide and use clearly marked separate bins for recycling.
- .5 If generated, store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .6 Provide adequate ventilation during use of volatile or noxious substances.
- .7 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .8 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

12.2 FINAL CLEANING

- .1 When Work is Substantially Performed, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by others, and leave Work area clean and suitable for occupancy.
- .3 Remove waste products from site.

Part 13 Closeout Procedures

13.1 INSPECTION AND DECLARATION

- .1 Contractor's Inspection: Conduct an inspection of Work with all subcontractors, identify deficiencies and defects, and repair as required to conform to Contract Documents.
- .2 Notify Departmental Representative in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.
- .3 Request Departmental Representative's Inspection.

13.2 INSPECTION

- .1 Departmental Representative and Contractor will perform inspection of Work to identify obvious defects or deficiencies. Contractor shall correct Work accordingly, at no additional cost to the Contract.

13.3 COMPLETION

- .1 Submit written certificate that the following have been performed:
 - .1 Work has been completed and inspected for compliance with Contract Documents.
 - .2 Defects have been corrected and deficiencies have been completed.
 - .3 Work is complete and ready for Final Inspection.

13.4 FINAL INSPECTION

- .1 When items noted above are completed, request final inspection of Work by Departmental Representative. If Work is deemed incomplete by Departmental Representative, complete outstanding items and request re-inspection, at no additional cost to the Contract.

END OF SECTION

Part 1 General

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- .1 Abatement of identified hazardous building materials, as specified in the Contract documents.

1.2 CONTRACT METHOD

- .1 Conduct Work under stipulated price (lump sum) contract.
- .2 Relations and responsibilities between Contractor and subcontractors are as defined in Conditions of Contract. Assigned Subcontractors must, in addition:
 - .1 Furnish to Contractor, bonds covering faithful performance of subcontracted work and payment of obligations thereunder when Contractor is required to furnish such bonds to Owner.
 - .2 Purchase and maintain liability insurance to protect from claims for not less than limits of liability which Contractor is required to provide to Owner.

1.3 WORK BY OTHERS

- .1 Other contractors are not expected to be present.

1.4 EXISTING SERVICES

- .1 Notify Departmental Representative and utility companies of intended interruption of services and obtain required permissions from any utility provider and the Departmental Representative.
- .2 Interruptions to vehicular traffic are not permitted.
- .3 Temporary services to maintain critical building and tenant systems are not expected to be required.
- .4 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.
- .5 Construct barriers in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.
- .6 Although power may be available at the site the Contractor must plan to provide power to be self-sufficient.
- .7 Contractor must plan to supply potable water to be self-sufficient.
- .8 Contractor to supply their own sanitary facilities.

1.5 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each document as follows:
 - .1 Contract Drawings.

- .2 Specifications.
- .3 Addenda.
- .4 Change Orders.
- .5 Other Modifications to Contract.
- .6 Field Test Reports.
- .7 Copy of Approved Work Schedule.
- .8 Health and Safety Plan and Other Safety Related Documents.
- .9 Environmental Protection Plan, relevant environmental permits and other environment related documents.
- .10 Other documents as specified.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1 Purpose

- .1 To ensure that the abatement project may proceed without undue disruption or hindrance and that the security of the site is maintained at all times.

Part 2 Definitions

- .1 "Unauthorized smoking and related Items" means all smoking items including, but not limited to, cigarettes, cigars, tobacco, chewing tobacco, cigarette making machines, matches and lighters.
- .2 "Commercial Vehicle" means any motor vehicle used for the shipment of material, equipment and tools required for the abatement project.
- .3 "Departmental Representative" means PWGSC representative, or Representative of the facility as applicable.
- .4 "Abatement employees" means persons working for the general contractor, the sub-contractors, equipment operators, material suppliers, testing and inspection companies and regulatory agencies.
- .5 "Abatement limits" means the area, as indicated in the contract documents, that the contractor will be allowed to work". Limits to be confirmed at abatement start-up meeting.

Part 3 Preliminary Proceedings

- .1 At abatement start-up meeting:
 - .1 Discuss the nature and extent of all activities involved in the Project.
 - .2 Establish mutually acceptable security procedures in accordance with this instruction.
- .2 The contractors' responsibilities:
 - .1 Ensure that all abatement employees are aware of the security requirements.
 - .2 Ensure that a copy of the security requirements is always prominently on display at the job site.

Part 4 Contractor Employees

- .1 Any person employed on the abatement site are required to act professional while onsite, at all times, and will be subject to immediate removal from property if they:
 - .1 Appear to be under the influence of alcohol, drugs or narcotics.
 - .2 Behave in an unusual or disorderly manner.

Part 5 Parking

- .1 Parking will be available where needed or possible, as directed by the Departmental Representative.

Part 6 Work Hours

- .1 In accordance with applicable Municipal bylaws and regulations.

Part 7 Tools and Equipment

- .1 Store all tools and equipment in approved secure locations.
- .2 Lock all tool boxes when not in use. Keys to remain in the possession of the employees of the contractor.

Part 8 Contraband

- .1 Weapons, ammunition, explosives, alcoholic beverages, drugs and narcotics are prohibited on the work site.

END OF SECTION

Part 1 General

1.1 ADMINISTRATIVE

- .1 Project meetings will be scheduled and administered throughout the progress of the work at the call of Departmental Representative.
- .2 Representative of Contractor, Subcontractor and/or suppliers attending meetings will be qualified and authorized to act on behalf of the party each represents.

1.2 PRECONSTRUCTION MEETING

- .1 Departmental Representative will schedule a pre-commencement meeting.
- .2 Departmental Representatives and Contractor will be in attendance.
- .3 Agenda to include:
 - .1 Appointment of official representative of participants in the Work.
 - .2 Schedule of Work: in accordance with schedule stipulated in Contract Documents.
 - .3 Schedule of submission. Submit submittals in accordance with Section 01 33 00 - Submittal Procedures.
 - .4 Delivery schedule of specified equipment.
 - .5 Site security.
 - .6 Proposed changes, change orders, procedures, approvals required time extensions, administrative requirements.
 - .7 Insurances, transcript of policies.

1.3 PROGRESS MEETINGS

- .1 Progress meetings will be held. Departmental Representative will schedule the meetings and arrange for a meeting location or call-in number.
- .2 Contractor involved in Work and Departmental Representative(s) are to be in attendance.
- .3 Departmental Representative will chair the meeting, and distribute meeting minutes. Contractor will record the meeting minutes and provide within 5 business days.
- .4 Agenda typically to include the following:
 - .1 Review, approval of minutes of previous meeting.
 - .2 Review of Work progress since previous meeting.
 - .3 Field observations, problems, conflicts.
 - .4 Problems which impede construction schedule.
 - .5 Corrective measures and procedures to regain projected schedule.
 - .6 Revision to construction schedule.
 - .7 Progress schedule, during succeeding work period.
 - .8 Review submittal schedules: expedite as required.

- .9 Maintenance of quality standards.
- .10 Review proposed changes for effect on construction schedule and on completion date.
- .11 Other business.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 ADMINISTRATIVE

- .1 Submit to Departmental Representative submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal until review is complete.
- .3 Review submittals prior to submission to Departmental Representative. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .4 Notify Departmental Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .5 Verify field measurements and affected adjacent Work.
- .6 Contractor's responsibility for errors and omissions in submission is not relieved by Departmental Representative's review of submittals.
- .7 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative review.
- .8 Keep one reviewed copy of each submission on site.

1.2 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work, where required or requested by Departmental Representative.
- .2 Allow 5 days for Departmental Representative's review of each submission. The contractor is to allow time for one revision and review of that revision.
- .3 Make changes in shop drawings as Departmental Representative may require, consistent with Contract Documents. When resubmitting, notify Departmental Representative in writing of revisions other than those requested.
- .4 After Departmental Representative's review, distribute copies.
- .5 Submit electronic copies of shop drawings for each requirement requested in specification Sections and as Departmental Representative may reasonably request.
- .6 If upon review by Departmental Representative, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before installation of Work may proceed.

1.3 PHOTOGRAPHIC DOCUMENTATION

- .1 Submit electronic copies of colour digital photography in “.jpg” format, standard resolution as directed by Departmental Representative.
- .2 Project identification: name and number of project and date of exposure indicated.
- .3 Viewpoints and their location as determined by Departmental Representative.
 - .1 Submit before and after photos of each type of hazardous building material that has been removed
- .4 Frequency of photographic documentation:
 - .1 Upon completion of Work, and as directed by Departmental Representative.

1.4 CERTIFICATES AND TRANSCRIPTS

- .1 Immediately after award of Contract, submit Yukon Workers' Compensation Health and Safety Board status or clearance letter.
- .2 Submit transcription of insurance immediately after award of Contract.

Products

1.5 NOT USED

- .1 Not Used.

Part 2 Execution

2.1 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

PWGSC Update on Asbestos Use

Effective April 1, 2016, all Public Works and Government Services Canada (PWGSC) contracts for new construction and major rehabilitation will prohibit use of asbestos-containing materials.

COVID 19

All contractors shall follow Canadian Construction Association COVID-19 - Standardized Protocols for All Canadian Construction Sites, Territorial Regulations and Federal Site Specific Guidelines.

1.1 REFERENCES

- .1 Government of Canada.
 - .1 Canada Labour Code - Part II (as amended)
 - .2 Canada Occupational Health and Safety Regulations. (as amended)
- .2 National Building Code of Canada (NBC): (as amended)
 - .1 Part 8, Safety Measures at Construction and Demolition Sites.
- .3 The Canadian Electrical Code (as amended)
- .4 Canadian Standards Association (CSA) as amended:
 - .1 CSA Z797-2018 Code of Practice for Access Scaffold.
 - .2 CSA S269.1-2016 Falsework for Construction Purposes.
 - .3 CSA S350-M1980 (R2003) Code of Practice for Safety in Demolition of Structures.
 - .4 CSA Z1006-10 Management of Work in Confined Spaces.
 - .5 CSA Z462-18 Workplace Electrical Safety Standard
- .5 National Fire Code of Canada 2015 (as amended)
 - .1 Part 5 – Hazardous Processes and Operations and Division B as applicable and required.
- .6 American National Standards Institute (ANSI): (as amended)
 - .1 ANSI/ASSP A10.3-2013, Operations – Safety Requirements for Powder-Actuated Fastening Systems.

- .7 Yukon Territories:
 - .1 Workers Compensation Act (as amended)
 - .2 Occupational Health and Safety Act (as amended)
- .8 Refer to the following reports (further referred to herein as the “Assessment Reports”, and attached in Appendix A), for information pertaining to hazardous materials that have been identified and will require disturbance during the Work:
 - .1 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “Hazardous Building Materials Assessments, RCMP Detachment, Teslin, YT” dated April 9, 2015, prepared for Public Works and Government Services Canada.
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 - .9 ALS Environmental Analytical Report entitled “Certificate of Analysis” dated May 26, 2020, prepared for CMS Construction Management Services (supplemental lead paint and leachate sampling).

1.2 RELATED SECTIONS

- .1 Refer to the following current NMS sections as required:
 - .1 Section 01 01 50 - General Instructions
 - .2 Section 01 33 00 - Submittal Procedures
 - .3 Section 01 35 35 – Fire Safety Requirements.
 - .4 Section 01 35 43 – Environmental Procedures.
 - .5 Section 01 74 11 - Cleaning.

- .6 Section 02 81 01 – Hazardous Materials.
- .7 Section 02 82 00.01 – Asbestos Abatement Minimum Precautions.
- .9 Section 02 82 00.03 – Asbestos Abatement Maximum Precautions.

1.3 WORKERS' COMPENSATION BOARD COVERAGE

- .1 Comply fully with the Workers' Compensation Act, regulations and orders made pursuant thereto, and any amendments up to the completion of the work.
- .2 Maintain Workers' Compensation Board coverage during the term of the Contract, until and including the date that the Certificate of Final Completion is issued.

1.4 COMPLIANCE WITH REGULATIONS

- .1 PWGSC may terminate the Contract without liability to PWGSC where the Contractor, in the opinion of PWGSC, refuses to comply with a requirement of the Workers' Compensation Act or the Occupational Health and Safety Regulations.
- .2 It is the Contractor's responsibility to ensure that all workers are qualified, competent and certified to perform the work as required by the Workers' Compensation Act or the Occupational Health and Safety Act.

1.5 SUBMITTALS

- .1 Submit to Departmental Representative submittals listed for review in accordance with Section 01 33 00.
- .2 Work affected by submittal shall not proceed until review is complete.
- .3 Submit the following:
 - .1 Organizations Health and Safety Plan.
 - .2 Site Specific Safety Plan or Health and Safety Plan (SSSP or HASP)
 - .2 Copies of reports or directions issued by Federal and Provincial / Territorial health and safety inspectors.
 - .3 Copies of incident and accident reports.
 - .4 Complete set of Material Safety Data Sheets (SDS), and all other documentation required by Workplace Hazardous Materials Information System (WHMIS) requirements.
 - .5 Emergency Response Procedures.

- .4 The Departmental Representative will review the Contractor's Site Specific Safety Plan or Health and Safety Plan (SSSP/HASP) and emergency response procedures, and provide comments to the Contractor within 5 days after receipt of the plan. Revise the plan as appropriate and resubmit to Departmental Representative.
- .5 Medical surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of work, and submit additional certifications for any new site personnel to Departmental Representative.
- .6 Submission of the Site Specific Safety Plan or Health and Safety Plan, and any revised version, to the Departmental Representative is for information and reference purposes only. It shall not:
 - .1 Be construed to imply approval by the Departmental Representative.
 - .2 Be interpreted as a warranty of being complete, accurate and legislatively compliant.
 - .3 Relieve the Contractor of his legal obligations for the provision of health and safety on the project.

1.6 RESPONSIBILITY

- .1 Assume responsibility as the for work under this contract.
- .2 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .3 Comply with and enforce compliance by employees with safety requirements of Contract documents, applicable Federal, Territorial, and local statutes, regulations, and ordinances, and with site-specific safety plan and/or Health and Safety Plan.

1.7 HEALTH AND SAFETY COORDINATOR

- .1 Assign a competent and qualified Health and Safety Coordinator who shall:
 - .1 Be responsible for completing all health and safety training, and ensuring that personnel that do not successfully complete the required training are not permitted to enter the site to perform work.
 - .2 Be responsible for implementing, daily enforcing, and monitoring the Site Specific Safety Plan (SSSP) or Health and Safety Plan (HASP)
 - .3 Be on site during execution of work.
 - .4 Have minimum two (2) years' site-related working experience
 - .5 Have working knowledge of the applicable occupational safety and health regulations.

1.8 GENERAL CONDITIONS

- .1 Provide safety barricades and lights around work site as required to provide a safe working environment for workers and protection for pedestrian and vehicular traffic.
- .2 Ensure that non-authorized persons are not allowed to circulate in designated construction areas of the work site.
 - .1 Provide appropriate means by use of barricades, fences, warning signs, and temporary lighting as required.
 - .2 Secure site at night time or provide security guard as deemed necessary to protect site against entry.

1.9 PROJECT/SITE CONDITIONS

- .1 Work at site may involve contact with:
 - .1 Multi-employer work site.
 - .2 Federal employees and general public.
 - .3 Energized electrical services.
 - .4 Working from heights.
 - .5 Hazards - PWGSC Preliminary Hazard Assessment Procedure Checklist included as an Appendix B to Specifications

1.10 UTILITY CLEARANCES

- .1 The Contractor is solely responsible for all utility detection and clearances required to complete the Work, prior to starting the Work.
- .2 The Contractor will not rely solely upon the Reference Drawings or other information provided for Utility locations.

1.11 REGULATORY REQUIREMENTS

- .1 Comply with specified codes, acts, bylaws, standards and regulations to ensure safe operations at site.
- .2 In event of conflict between any provision of the above authorities, the most stringent provision will apply. Should a dispute arise in determining the most stringent requirement, the Departmental Representative will advise on the course of action to be followed.

1.12 WORK PERMITS

- .1 Obtain specialty permit(s) related to project before start of work.

1.13 FILING OF NOTICE

- .1 The Contractor is to file Notice of Project with Territorial authorities prior to commencement of work. (All construction projects require a Notice of Work)
- .2 Provide copies of all notices to the Departmental Representative within 1 week following award of contract.

1.14 SITE SPECIFIC HEALTH AND SAFETY PLAN

- .1 Conduct and document a site-specific hazard assessment based on review of Contract documents, required work, and project site. Identify any known and potential health risks and safety hazards.
- .2 Prepare, submit and comply with the Site Specific Safety Plan (SSSP) or Health and Safety Plan (HASP) based on the required hazard assessment, including, but not limited to, the following:
 - .1 Primary requirements:
 - .1 Contractor's safety policy.
 - .2 Identification of applicable compliance obligations.
 - .3 Definition of responsibilities for project safety/organization chart for project.
 - .4 General safety rules for project.
 - .5 Job-specific safe work, procedures.
 - .6 Inspection policy and procedures.
 - .7 Incident reporting and investigation policy and procedures.
 - .8 Occupational Health and Safety Committee/Representative procedures.
 - .9 Occupational Health and Safety meetings.
 - .10 Occupational Health and Safety communications and record keeping procedures.
 - .11 COVID 19 Protocols and Procedures

- .2 Summary of health risks and safety hazards resulting from analysis of hazard assessment, with respect to site tasks and operations which must be performed as part of the work.
 - .3 List hazardous materials to be brought on site as required by work. SDS required for all products.
 - .4 Indicate Engineering and administrative control measures to be implemented at the site for managing identified risks and hazards.
 - .5 Identify personal protective equipment (PPE) to be used by workers.
 - .6 Identify personnel and alternates responsible for site safety and health.
 - .7 Identify personnel training requirements and training plan, including site orientation for new workers.
- .3 Develop the plan in collaboration with all subcontractors. Ensure that work/activities of subcontractors are included in the hazard assessment and are reflected in the plan.
 - .4 Revise and update Site Specific Safety Plan (SSSP) and/or Health and Safety Plan (HASP) as required, and re-submit to the Departmental Representative.
 - .5 Departmental Representative's review: the review of Site Specific Safety Plan and/or Health and Safety Plan by Public Works and Government Services Canada (PWGSC) shall not relieve the Contractor of responsibility for errors or omissions in final Site Specific Safety Plan and/or Health and Safety Plan of responsibility for meeting all requirements of construction and Contract documents and legislated requirements.

1.15 EMERGENCY PROCEDURES

- .1 List standard operating procedures and measures to be taken in emergency situations. Include an emergency response and emergency evacuation plan and emergency contacts (i.e. names/telephone numbers) of:
 - .1 Designated personnel from own company.
 - .2 Regulatory agencies applicable to work and as per legislated regulations.
 - .3 Local emergency resources.
 - .4 Departmental Representative.
 - .5 A route map with written directions to the nearest hospital or medical clinic.

- .2 Include the following provisions in the emergency procedures:
 - .1 Notify workers and the first-aid attendant, of the nature and location of the emergency.
 - .2 Evacuate all workers safely.
 - .3 Check and confirm the safe evacuation of all workers.
 - .4 Notify the fire department or other emergency responders.
 - .5 Notify adjacent workplaces or residences which may be affected if the risk extends beyond the workplace.
 - .6 Notify Departmental Representative.
- .3 Provide written rescue/evacuation procedures as required for, but not limited to:
 - .1 Work at high angles.
 - .2 Work in confined spaces or where there is a risk of entrapment.
 - .3 Work with hazardous substances.
 - .4 Underground work.
 - .5 Work on, over, under and adjacent to water.
 - .6 Workplaces where there are persons who require physical assistance to be moved.
- .4 Design and mark emergency exit routes to provide quick and unimpeded exit.
- .5 Revise and update emergency procedures as required, and re-submit to the Departmental Representative.
- .6 Contractor's must not rely solely upon 911 for emergency rescue in a confined space, working at heights, etc.

1.16 HAZARDOUS PRODUCTS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS 2015) regarding use, handling, storage and disposal of hazardous materials, and regarding labelling and provision of Safety Data Sheets (SDS) acceptable to the Departmental Representative and in accordance with the Canada Labour Code.

- .2 Where use of hazardous and toxic products cannot be avoided:
 - .1 Advise Departmental Representative beforehand of the product(s) intended for use. Submit applicable SDS and WHMIS 2015 documents as per Section 01 33 00.
 - .2 In conjunction with Departmental Representative schedule to carry out work during "off hours" when tenants have left the building.
 - .3 Provide adequate means of ventilation in accordance with Section 01 51 00.
 - .4 The Contractor shall ensure that the product is applied as per manufacturers recommendations.
 - .5 The Contractor shall ensure that only pre-approved products are bought onto the work site in an adequate quantity to complete the work.

1.17 ASBESTOS HAZARD

- .1 Carry out any activities involving asbestos in accordance with current applicable Federal and Territorial Regulations.
- .2 Removal and handling of asbestos will be in accordance with current applicable Territorial / Federal Regulations.

1.18 PCB REMOVALS

- .1 Mercury-containing fluorescent tubes and ballasts which contain polychlorinated biphenyls (PCBs) are classified as hazardous waste.
- .2 Remove, handle, transport and dispose of as indicated in Division 2 specifications.

1.19 REMOVAL OF LEAD-CONTAINING PAINT

- .1 All paint containing TCLP lead concentrations above 5 ppm are classified as hazardous.
- .2 Carry out demolition and/or remediation activities involving lead-containing paints in accordance with current applicable Provincial / Territorial Regulations.
- .3 Work with lead-containing paint shall be completed as per Territorial and Federal regulations.
- .4 Dry Scraping/Sanding of any materials containing lead is strictly prohibited.
- .5 The use of Methylene Chloride based paint removal products is strictly prohibited.

1.20 ELECTRICAL SAFETY REQUIREMENTS

- .1 Comply with authorities and ensure that, when installing new facilities or modifying existing facilities, all electrical personnel are completely familiar with existing and new electrical circuits and equipment and their operation.
 - .1 Before undertaking any work, coordinate arc flash protection, required energizing and de-energizing of new and existing circuits with Departmental Representative.
 - .2 Maintain electrical safety procedures and take necessary precautions to ensure safety of all personnel working under this Contract, as well as safety of other personnel on site.

1.21 ELECTRICAL LOCKOUT

- .1 Develop, implement and enforce use of established procedures to provide electrical lockout and to ensure the health and safety of workers for every event where work must be done on any electrical circuit or facility.
- .2 Prepare the lockout procedures in writing, listing step-by-step processes to be followed by workers, including how to prepare and issue the request/authorization form. Have procedures available for review upon request by the Departmental Representative.
- .3 Keep the documents and lockout tags at the site and list in a log book for the full duration of the Contract. Upon request, make such data available for viewing by Departmental Representative or by any authorized safety representative.

1.22 OVERLOADING

- .1 Ensure no part of work is subjected to a load which will endanger its safety or will cause permanent deformation.

1.23 FALSEWORK

- .1 Design and construct falsework in accordance with CSA S269.1-1975 (R2003) (as amended)

1.24 SCAFFOLDING

- .1 Design, construct and maintain scaffolding in a rigid, secure and safe manner, in accordance with CSA Z797-2009 (as amended) Occupational Health and Safety Act. (as amended)

1.25 CONFINED SPACES

- .1 Carry out work in compliance with current Provincial / Territorial regulations.

1.26 POWDER-ACTUATED DEVICES

- .1 Use powder-actuated devices in accordance with ANSI A10.3 (as amended) only after receipt of written permission from the Departmental Representative.

1.27 FIRE SAFETY AND HOT WORK

- .1 Obtain Departmental Representative's authorization before any welding, cutting or any other hot work operations can be carried out on site.
- .2 Hot work includes cutting/melting with use of torch, flame heating roofing kettles, or other open flame devices and grinding with equipment which produces sparks.
- .3 Hot Work permits are a mandatory requirement for any hot work activities.

1.28 FIRE SAFETY REQUIREMENTS

- .1 Store oily/paint-soaked rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.
- .2 Handle, store, use and dispose of flammable and combustible materials in accordance with the National Fire Code of Canada. (as amended)
- .3 Portable gas and diesel fuel tanks are not permitted on most federal work sites. Approval from the Departmental Representative is required prior to any gas or diesel tank being brought onto the work site.

1.29 FIRE PROTECTION AND ALARM SYSTEM

- .1 Fire protection and alarm systems shall not be:
 - .1 Obstructed.
 - .2 Shut off.
- .2 Do not use fire hydrants, standpipes and hose systems for purposes other than firefighting.
- .3 Be responsible/liable for costs incurred from the fire department, the building owner and the tenants, resulting from false alarms.

1.30 UNFORESEEN HAZARDS

- .1 Should any unforeseen or peculiar safety-related factor, hazard or condition become evident during performance of the work, immediately stop work and immediately advise the Departmental Representative verbally and in writing.

1.31 POSTED DOCUMENTS

- .1 Post legible versions of the following documents on site:
 - .1 Site Specific Safety Plan (SSSP) or Health and Safety Plan (HASP)
 - .2 Sequence of work.
 - .3 Emergency procedures.
 - .4 Site drawing showing project layout, locations of the first-aid station, evacuation route and marshalling station, and the emergency transportation provisions.
 - .5 Notice of Project.
 - .6 Floor plans or site plans. Must be posted in a non-inmate access area and locked up when not being used.
 - .7 Notice as to where a copy of the Workers' Compensation Act and Regulations are available on the work site for review by employees and workers.
 - .8 Workplace Hazardous Materials Information System (WHMIS 2015) documents.
 - .9 Material Safety Data Sheets (SDS).
 - .10 List of names of Joint Health and Safety Committee members, or Health and Safety Representative, as applicable.
 - .11 All Hazardous Material and Substance Reports including Lab Analysis
- .2 Post all Material Safety Data Sheets (SDS) on site, in a common area, visible to all workers and in locations accessible to tenants when work of this Contract includes construction activities adjacent to occupied areas.
- .3 Postings should be protected from the weather, and visible from the street or the exterior of the principal construction site shelter provided for workers and equipment, or as approved by the Departmental Representative.

1.32 MEETINGS

- .1 Attend health and safety pre-construction meeting and all subsequent meetings called by the Departmental Representative.

1.33 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by the Departmental Representative.

- .2 Provide Departmental Representative with written report of action taken to correct non-compliance with health and safety issues identified.
- .3 The Departmental Representative may issue a "stop work order" if noncompliance of health and safety regulations is not corrected immediately or within posted time. The Contractor/subcontractors will be responsible for any costs arising from such a "stop work order".

2 PRODUCTS

- .1 Not used.

3 EXECUTION

- .1 Not used.

END OF SECTION

Part 1 General

1.1 REPORTING FIRES

- .1 Know location of nearest fire alarm box and telephone, including emergency phone number (911).
- .2 Immediately report fire incidents to the local Fire Department.
- .3 Person calling in the fire alarm box will remain at entrance to direct Fire Department to scene of fire.
- .4 When reporting fire by telephone, give location of fire, address or number of building and be prepared to verify location.

1.2 INTERIOR AND EXTERIOR FIRE PROTECTION AND ALARM SYSTEMS

- .1 Fire hydrants, standpipes and hose systems will not be used for other than fire-fighting purposes unless authorized by Departmental Representative.

1.3 FIRE EXTINGUISHERS

- .1 Supply fire extinguishers necessary to protect work in progress and Contractor's physical plant on site.

1.4 BLOCKAGE OF ROADWAYS

- .1 Advise Departmental Representative of work that would impede fire apparatus response. This includes erecting of barricades and digging of trenches.

1.5 SMOKING PRECAUTIONS

- .1 Observe smoking regulations.

1.6 RUBBISH AND WASTE MATERIALS

- .1 Keep rubbish and waste materials at minimum quantities.
- .2 Burning of rubbish is prohibited.
- .3 Remove rubbish from work site at end of work day or shift or as directed.
- .4 Storage:
 - .1 Store waste in approved receptacles to ensure maximum cleanliness and safety.
 - .2 Deposit greasy or oily rags and materials subject to spontaneous combustion in approved receptacles and remove specified.

1.7 FLAMMABLE AND COMBUSTIBLE LIQUIDS

- .1 Handling, storage and use of flammable and combustible liquids governed by current National Fire Code of Canada.

- .2 Keep flammable and combustible liquids such as gasoline, kerosene and naphtha for ready use in quantities not exceeding 45 litres provided they are stored in approved safety cans bearing Underwriters' Laboratory of Canada or Factory Mutual seal of approval. Storage of quantities of flammable and combustible liquids exceeding 45 litres for work purposes requires permission of Departmental Representative.
- .3 Transfer of flammable and combustible liquids is prohibited within buildings.
- .4 Transfer of flammable and combustible liquids will not be carried out in vicinity of open flames or any type of heat-producing devices.
- .5 Do not use flammable liquids having flash point below 38 degrees C such as naphtha or gasoline as solvents or cleaning agents.
- .6 Store flammable and combustible waste liquids, for disposal, in approved containers located in safe ventilated area. Keep quantities minimum and Agassiz Fire Department is to be notified when disposal is required.

1.8 HAZARDOUS SUBSTANCES

- .1 If the Work involves the use of toxic or hazardous materials, chemicals and/or explosives, or otherwise creating hazard to life, safety or health, Work shall be conducted in accordance with National Fire Code of Canada.
- .2 When Work is carried out in dangerous or hazardous areas involving use of heat, provide fire watchers equipped with sufficient fire extinguishers. Determination of dangerous or hazardous areas along with level of protection necessary for Fire Watch is at discretion of Departmental Representative. Contractors are responsible for providing fire watch service for work on scale established and in conjunction with Departmental Representative (or alternate) at pre-work conference.
- .3 Provide ventilation where flammable liquids, such as lacquers or urethanes are used, eliminate sources of ignition.

1.9 QUESTIONS AND/OR CLARIFICATION

- .1 Direct questions or clarification on Fire Safety in addition to above requirements to Departmental Representative.

1.10 FIRE INSPECTION

- .1 Co-ordinate site inspections through Departmental Representative.
- .2 Allow Departmental Representative unrestricted access to work site.
- .3 Co-operate with Departmental Representative during routine fire safety inspection of work site.
- .4 Immediately remedy unsafe fire situations observed by Departmental Representative (or alternate).

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Definitions:
 - .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade environment aesthetically, culturally and/or historically.
 - .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction. Control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Prior to commencing construction activities or delivery of materials to site, provide Environmental Protection Plan for review and approval by Departmental Representative.
- .3 Ensure Environmental Protection Plan includes comprehensive overview of known or potential environmental issues to be addressed during construction.
- .4 Address topics at level of detail commensurate with environmental issue and required abatement task[s].
- .5 Include in Environmental Protection Plan:
 - .1 Name[s] of person[s] responsible for ensuring adherence to Environmental Protection Plan.
 - .2 Name[s] and qualifications of person[s] responsible for manifesting hazardous waste to be removed from site.
 - .3 Name[s] and qualifications of person[s] responsible for training site personnel.
 - .4 Descriptions of environmental protection personnel training program.
 - .5 Traffic Control Plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Ensure plans include measures to minimize amount of mud transported onto paved public roads by vehicles or runoff.
 - .6 Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use. Ensure plan includes measures for marking limits of use areas and methods for protection of features to be preserved within authorized work areas.
 - .7 Spill Control Plan including procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
 - .8 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.

- .9 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, are contained on project site.
- .10 Contaminant Prevention Plan identifying potentially hazardous substances to be used on job site; intended actions to prevent introduction of such materials into air, water, or ground; and detailing provisions for compliance with Federal, Provincial/Territorial, and Municipal laws and regulations for storage and handling of these materials.
- .11 Waste Water Management Plan identifying methods and procedures for management and/or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering of ground water, disinfection water, hydrostatic test water, and water used in flushing of lines.

1.3 FIRES

- .1 Fires and burning of rubbish on site not permitted.

1.4 DRAINAGE

- .1 Ensure pumped water into waterways, sewer or drainage systems is free of suspended materials.
- .2 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

1.5 POLLUTION CONTROL

- .1 Maintain temporary erosion and pollution control features installed at the Site.
- .2 Control emissions from equipment and plant to local authorities' emission requirements.
- .3 Prevent sandblasting and other extraneous materials from contaminating air and waterways beyond application area.
 - .1 Provide temporary enclosures where required.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

1.6 NOTIFICATION

- .1 Departmental Representative will notify Contractor in writing of observed noncompliance with Federal, Provincial/Territorial or Municipal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection plan.
- .2 Contractor: after receipt of such notice, inform Departmental Representative of proposed corrective action and take such action for approval by Departmental Representative.
 - .1 Do not take action until after receipt of written approval by Departmental Representative.
- .3 Departmental Representative will issue stop order of work until satisfactory corrective action has been taken.

- .4 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 CLEANING

- .1 Clean in accordance with Section 01 74 11 - Cleaning.
- .2 Waste Management: dispose of waste in accordance with Section 02 81 01 – Hazardous Materials.
- .3 Rubbish and waste materials are not to be buried on site
- .4 Ensure public waterways, storm and sanitary sewers remain free of waste and volatile materials disposal.

END OF SECTION

Part 1 General

1.1 REFERENCES AND CODES

- .1 Perform Work in accordance with codes of Federal, Provincial/Territorial or local application provided that in case of conflict or discrepancy, more stringent requirements apply.
- .2 Meet or exceed requirements of:
 - .1 Contract documents.
 - .2 Specified standards, codes and referenced documents.
- .3 Comply with all approvals and permits that apply to the Work.
- .4 Contractor shall ensure compliance on its part and on the part of all its Subcontractors with the Yukon Territory Occupational Health and Safety Act and Regulations thereunder.
- .5 All other Yukon Territory Laws and Regulations shall apply as appropriate and the Contractor shall comply with the requirements thereof as though they had been specifically named in these specifications.
- .6 Codes, Standards and Regulations are specified in other sections of the specifications and the Work shall be done in accordance with those Codes, Standards and Regulations where applicable.

1.2 HAZARDOUS MATERIAL DISCOVERY

- .1 Notify Departmental Representative if additional, previously un-identified suspected hazardous material (e.g. asbestos, lead, PCB, mercury, etc.) during the Work. Leave undisturbed (as much as possible) until Departmental Representative provides instructions.

1.3 BUILDING SMOKING ENVIRONMENT

- .1 Comply with smoking restrictions and Municipal by-laws and the provisions of the Contract Documents.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 INSTALLATION AND REMOVAL

- .1 Provide temporary utilities as required to execute work expeditiously.
- .2 Remove from site all such work after use.

1.2 WATER SUPPLY

- .1 Contractor will provide continuous supply of potable water for own use.
- .2 If required, arrange for connection with appropriate utility company and pay costs for installation, maintenance and removal.

1.3 TEMPORARY HEATING AND VENTILATION

- .1 If required, provide temporary heating, as required during construction period, including attendance, maintenance and fuel.
- .2 Construction heaters used inside building must be vented to outside or be non-flameless type. Solid fuel salamanders are not permitted.
- .3 Provide temporary heat and ventilation in enclosed areas as required to:
 - .1 Facilitate progress of Work.
 - .2 Protect Work and products against dampness and cold.
 - .3 Prevent moisture condensation on surfaces.
 - .4 Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
 - .5 Provide adequate ventilation to meet health regulations for safe working environment.
- .4 Ventilating:
 - .1 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during work.
 - .2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
 - .3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
 - .4 Ventilate storage spaces containing hazardous or volatile materials.
 - .5 Ventilate temporary sanitary facilities.
 - .6 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.

1.4 TEMPORARY POWER AND LIGHT

- .1 Provide and maintain temporary lighting throughout project, where required and in accordance with applicable Health and Safety standards.

1.5 TEMPORARY COMMUNICATION FACILITIES

- .1 Provide and pay for temporary telephone and data hook up (and associated lines) necessary for own use, if required.

1.6 FIRE PROTECTION

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.
- .2 Burning rubbish and construction waste materials is not permitted on site.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 INSTALLATION AND REMOVAL

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Remove from site all such work after use.

1.2 GUARD RAILS AND BARRICADES

- .1 Provide secure, rigid guard rails and barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs as necessary
- .2 Provide as required by governing authorities.

1.3 DUST TIGHT SCREENS

- .1 Provide dust tight screens or partitions to localize dust generating activities, and for protection of workers and public, as required.
- .2 Maintain and relocate protection until such work is complete.

1.4 ACCESS TO SITE

- .1 Provide and maintain site security, access roads, sidewalk crossings, ramps and construction runways as may be required for access to Work.

1.5 FIRE ROUTES

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.

1.6 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY

- .1 Protect surrounding private and public property from damage during performance of Work.
- .2 Be responsible for damage incurred.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, other than that caused by Departmental Representative or other Contractors.
- .2 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by Departmental Representative. Do not burn waste materials on site.
- .3 Clear snow and ice from access to buildings, if necessary.
- .4 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5 Provide on-site containers for collection of waste materials and debris.
- .6 Provide and use marked separate bins for recycling.
- .7 Dispose of waste materials and debris off site.
- .8 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .9 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- .10 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.

1.2 FINAL CLEANING

- .1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .3 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .4 Remove all waste products and debris.
- .5 Remove waste materials from site at regularly scheduled times or dispose of as directed by Departmental Representative. Do not burn waste materials on site.
- .6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .7 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.

.8 Clean and sweep areaways and sunken wells.

.9 Sweep and wash clean paved areas.

1.3 WASTE MANAGEMENT AND DISPOSAL

.1 Separate waste materials in accordance with Section 02 81 01 – Hazardous Materials

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

1.1 General

1.2 ADMINISTRATIVE REQUIREMENTS

- .1 Acceptance of Work Procedures:
 - .1 Contractor's Inspection: Contractor to conduct inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
 - .1 Notify Departmental Representative in writing of satisfactory completion of Contractor's inspection and submit verification that corrections have been made.
 - .2 Request Departmental Representative inspection.
 - .2 Departmental Representative Inspection:
 - .1 Departmental Representative and Contractor to inspect Work and identify defects and deficiencies.
 - .2 Contractor to correct Work as directed.
 - .3 Completion Tasks: submit written certificates that tasks have been performed as follows:
 - .1 Work: completed and inspected for compliance with Contract Documents.
 - .2 Defects: corrected and deficiencies completed.
 - .3 Work: complete and ready for final inspection.
 - .4 Final Inspection:
 - .1 When completion tasks are done, request final inspection of Work by Departmental Representative.
 - .2 When Work is incomplete according to Departmental Representative, complete outstanding items and request re-inspection, at no additional cost to the Contract.
 - .5 Final Payment:
 - .1 When Departmental Representative considers final deficiencies and defects corrected and requirements of Contract met, make application for final payment.

1.3 FINAL CLEANING

- .1 Clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Remove surplus materials, excess materials, rubbish, tools and equipment.
- .2 Waste Management: dispose of waste materials in accordance with Section 02 81 01 – Hazardous Materials

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Reports (collectively referred to herein as the “Assessment Reports”)
 - .1 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “Hazardous Building Materials Assessments, RCMP Detachment, Teslin, YT” dated April 9, 2015, prepared for Public Works and Government Services Canada.
 - .2 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “Hazardous Building Materials Assessments, RCMP Detachment, Teslin, YT” dated November 3, 2016, prepared for Public Works and Government Services Canada.
 - .3 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “ Pre-Demolition Hazardous Building Materials Assessment, RCMP M Division Former Detachment, Johnson Road, Teslin, YT” dated October 23, 2017, prepared for Public Services and Procurement Canada.
 - .4 Stantec Consulting Ltd. Report for Project No. 123221201.200.100 entitled “Asbestos-Containing Materials Re-Assessment, RCMP M Division Former Detachment, Johnson Road, Teslin, YT” dated March 2019, prepared for Public Services and Procurement Canada.
 - .5 Antiquity Consulting Ltd. Report entitled “Hazardous Materials Limited Report, RCMP Detachment House, Teslin, Yukon” dated August 2019, prepared for Air Care Yukon.
 - .6 ALS Environmental Analytical Report entitled “Certificate of Analysis” dated April 3, 2020, prepared for CMS Construction Management Services (supplemental lead paint sampling).
 - .7 CMS Construction Management Services Site Visit Report entitled “Old Teslin RCMP Detachment Haz Mat Abatement & Building Demolition” dated May 13, 2020, prepared for Royal Canadian Mounted Police M Division.
 - .8 EMSL Canada Inc. Analytical Report entitled “Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy” dated May 22, 2020, prepared for CMS Construction Management Services (supplemental asbestos bulk sampling).
 - .9 ALS Environmental Analytical Report entitled “Certificate of Analysis” dated May 26, 2020, prepared for CMS Construction Management Services (supplemental lead paint and leachate sampling).

1.2 DEFINITIONS

- .1 Dangerous Goods: product, substance, or organism specifically listed or meets hazard criteria established in Transportation of Dangerous Goods Regulations.
- .2 Hazardous Material: product, substance, or organism used for its original purpose; and is either dangerous goods or material that will cause adverse impact to environment or adversely affect health of persons, animals, or plant life when released into the environment.
- .3 Hazardous Waste: hazardous material no longer used for its original purpose and that is intended for recycling, treatment or disposal.

- .4 Workplace Hazardous Materials Information System (WHMIS): Canada-wide system designed to give employers and workers information about hazardous materials used in workplace. Under WHMIS, information on hazardous materials is provided on container labels, material safety data sheets (MSDS), and worker education programs. WHMIS is put into effect by combination of federal and territorial laws.
- .5 Hazardous Building Material: component of a building or structure that will cause adverse impact to environment or adversely affect health of persons, animals, or plant life when altered, disturbed or removed during maintenance, renovation or demolition.

1.3 REFERENCE STANDARDS:

- .1 Canadian Environmental Protection Act,1999 (CEPA 1999)
 - .1 Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2005-149).
- .2 Department of Justice Canada (Jus)
 - .1 Transportation of Dangerous Goods Act, 1992 (TDG Act) [1992], (c. 34).
 - .2 Transportation of Dangerous Goods Regulations (T-19.01-SOR/2001-286).
- .3 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .4 National Research Council Canada Institute for Research in Construction (NRC-IRC).
 - .1 National Fire Code of Canada-(2010).
- .5 Yukon Government
 - .1 Yukon Territory Occupational Health and Safety Act and Regulations (YT OHS Reg.), including amendments to the date of the work
 - .2 Solid Waste Regulations, including amendments to the date of the work
 - .3 Special Waste Regulations, including amendments to the date of the work
 - .4 Contaminated Sites Regulation, including amendments to the date of the work
- .6 Government of Canada
 - .1 The Canada Labour Code, Part II, Canada Occupational Health and Safety Regulations (COHSR)
 - .2 The Federal PCB Regulations (SOR/2008-273).
 - .3 The Federal Halocarbons Regulation (FHR 2003).
- .7 Environment Canada
 - .1 Identification of Lamp Ballasts Containing PCBs, Report EPS 2/CC/2, dated August 1991 (PCB Guide)
- .8 Canadian Construction Association
 - .1 Standard Construction Document CCA 82 “Mould Guidelines for the Canadian Construction Industry” (2004 – further referred to herein as “CCA 82”).

1.4 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

- .1 Submit manufacturer's instructions, printed product literature and data sheets for hazardous materials and include product characteristics, performance criteria, physical size, finish and limitations.
- .2 Submit two copies of WHMIS MSDS in accordance with Sections 01 35 33 – Health and Safety Requirements and 01 35 43 – Environmental Procedures to Departmental Representative for each hazardous material required prior to bringing hazardous material on site.
- .3 Submit environmental management plan to Departmental Representative that identifies hazardous materials, usage, location, personal protective equipment requirements, and disposal arrangements.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Transport hazardous materials and wastes in accordance with Transportation of Dangerous Goods Act, Transportation of Dangerous Goods Regulations, and applicable territorial regulations.
- .4 Storage and Handling Requirements:
 - .1 Co-ordinate storage of hazardous materials with Departmental Representative and abide by internal requirements for labelling and storage of materials and wastes.
 - .2 Store and handle hazardous materials and wastes in accordance with applicable Federal and Territorial laws, regulations, codes, and guidelines.
 - .3 Store and handle flammable and combustible materials in accordance with National Fire Code of Canada requirements.
 - .4 Keep no more than 45 litres of flammable and combustible liquids such as gasoline, kerosene and naphtha for ready use.
 - .1 Store flammable and combustible liquids in approved safety cans bearing the Underwriters' Laboratory of Canada or Factory Mutual seal of approval.
 - .2 Storage of quantities of flammable and combustible liquids exceeding 45 litres for work purposes requires the written approval of the Departmental Representative.
 - .5 Transfer of flammable and combustible liquids is prohibited within buildings.
 - .6 Transfer flammable and combustible liquids away from open flames or heat-producing devices.
 - .7 Solvents or cleaning agents must be non-flammable or have flash point above 38 degrees C.
 - .8 Store flammable and combustible waste liquids for disposal in approved containers located in safe, ventilated area. Keep quantities to minimum.
 - .9 Observe smoking regulations, smoking is prohibited in areas where hazardous materials are stored, used, or handled.

- .10 Storage requirements for quantities of hazardous materials and wastes in excess of 5 kg for solids, and 5 litres for liquids:
 - .1 Store hazardous materials and wastes in closed and sealed containers.
 - .2 Label containers of hazardous materials and wastes in accordance with WHMIS.
 - .3 Store hazardous materials and wastes in containers compatible with that material or waste.
 - .4 Segregate incompatible materials and wastes.
 - .5 Ensure that different hazardous materials or hazardous wastes are stored in separate containers.
 - .6 Store hazardous materials and wastes in secure storage area with controlled access.
 - .7 Maintain clear egress from storage area.
 - .8 Store hazardous materials and wastes in location that will prevent them from spilling into environment.
 - .9 Have appropriate emergency spill response equipment available near storage area, including personal protective equipment.
 - .10 Maintain inventory of hazardous materials and wastes, including product name, quantity, and date when storage began.
- .11 Ensure personnel have been trained in accordance with Workplace Hazardous Materials Information System (WHMIS) requirements.
- .12 Report spills or accidents immediately to Departmental Representative. Submit a written spill report to Departmental Representative within 24 hours of incident.

1.6 TRANSPORTATION

- .1 Transport hazardous materials and wastes in accordance with federal Transportation of Dangerous Goods Act, Transportation of Dangerous Goods Regulations, and applicable territorial regulations.
- .2 When hazardous waste is generated on site:
 - .1 Co-ordinate transportation and disposal with Departmental Representative.
 - .2 Ensure compliance with applicable federal, territorial and municipal laws and regulations for generators of hazardous waste.
 - .3 Use licensed carrier authorized by territorial authorities to accept subject material.
 - .4 Prior to shipping material obtain written notice from intended hazardous waste treatment or disposal facility that it will accept material and that it is licensed to accept this material.
 - .5 Label containers with legible, visible safety marks as prescribed by federal and territorial regulations.
 - .6 Ensure that trained personnel handle, offer for transport, or transport dangerous goods.
 - .7 Provide photocopy of shipping documents and waste manifests to Departmental Representative.
 - .8 Track receipt of completed manifest from consignee after shipping dangerous goods. Provide a photocopy of completed manifest to Departmental Representative.

- .9 Report discharge, emission, or escape of hazardous materials immediately to Departmental Representative and appropriate territorial authority. Take reasonable measures to control release.

1.1 EXISTING CONDITIONS

- .1 Reports and information pertaining to hazardous building materials present within the buildings that may be handled, removed, or otherwise disturbed and disposed of during this Project are bound into this specification in the Appendix.
- .2 Notify Departmental Representative of suspected hazardous building material discovered during Work and not apparent from drawings, specifications, or reports pertaining to the Work. Do not disturb such material pending instructions from Departmental Representative.

Part 2 Products

2.1 MATERIALS

- .1 Bring on site only quantities hazardous material required to perform Work.
- .2 Maintain SDS in proximity to where materials are being used. Communicate this location to personnel who may have contact with hazardous materials.

Part 3 Execution

3.1 HAZARDOUS MATERIALS ABATEMENT

- .1 Scope of Abatement Activities (other than asbestos-containing materials – specified elsewhere)
 - .1 Abatement shall be conducted to remove and dispose of hazardous building materials as identified in the Assessment Reports in accordance with applicable regulations, guidelines, standards and/or best practices for such work, to the extent required to allow for building demolition.
 - .2 Contractor is responsible for reviewing plans, specifications and reports such that they understand the locations and amounts of hazardous building materials that require abatement.
 - .3 Where there is a discrepancy between the information in this specification as compared to the information in the Assessment Reports as it pertains to identities, locations and/or quantities of identified hazardous building materials, the information in the Assessment Reports will prevail.
 - .1 If discrepancies are present pertaining to identities, locations and/or quantities of identified hazardous building materials, it is the Contractor's responsibility to request information to clarify such discrepancies during the bidding period. No additional costs will be allowed by the Contractor for additional labour or materials required to complete required abatement related to such discrepancies that could otherwise have been clarified during the bidding period.
 - .4 The listing below is a summary of the identified hazardous building materials (other than asbestos-containing materials) and associated considerations and/or

removal and disposal requirements including regulations, guidelines and/or standards.

- .1 Lead
 - .1 Actions that will disturb lead-containing materials (including paints) are to be conducted such that airborne exposure to lead dust does not exceed the 8-hour COHSR Occupational Exposure Limit (OEL) for lead of 0.05 milligram per cubic metre (mg/m³).
 - .2 The actual methods to be used by the Contractor to complete the general Work of this Project may impact how and to what extent various lead-containing items and LCPs will require removal and disposal.
 - .1 The work tasks required and the ways in which lead-containing materials (including LCPs) will be impacted will determine the appropriate respirators, measures and procedures that should be followed to protect workers from lead or arsenic exposure. This is to be determined by the Contractor through their own Risk Assessment.
 - .1 Although formal evaluation is ultimately the responsibility of the Contractor, limited hazards are expected associated with the lead content of paints and other items to be disturbed, based on the information in the Assessment Reports, and on the scope for remediation, which does NOT require specific or comprehensive removal of lead-containing items or LCPs.
 - .3 Although LCPs and items coated with LCPs may be disturbed and/or removed for disposal during the Work, unless deemed necessary through risk assessment or cost analysis conducted by the Contractor, comprehensive removal of LCPs from items or surfaces and/or specific removal of building materials coated with LCPs is not expected to be required during the Work.
 - .4 Waste transportation to be conducted in accordance the Federal Transportation of Dangerous Goods Regulation.
 - .5 Waste disposal to be conducted in accordance with Disposal requirements of Yukon Environment—Contaminated Sites Regulations and the Yukon Government Special Waste Regulations.
 - .1 Preliminary testing as indicated in the Assessment Reports indicates that building materials coated with identified LCPs would NOT create waste that contains lead in a leachable form such that its leachate would contain >5 mg/L lead.
- .2 Polychlorinated Biphenyls (PCBs)
 - .1 When fluorescent fixtures are decommissioned, verify the PCB content of fluorescent lamp ballasts as per the PCB Guide.
 - .2 Should a material suspected to contain PCBs become uncovered during demolition activities (i.e., dielectric fluids, hydraulic fluids), all work in the areas that may disturb the material should be stopped. Samples of the suspect material should be submitted for laboratory analysis to determine if PCBs are present.

- .3 If PCB-containing items (including lamp ballasts) are identified for removal and disposal, these should be handled, transported, stored and disposed of in accordance with the following:
 - .1 Transportation requirements of the Federal Transportation of Dangerous Goods Regulation.
 - .2 Disposal requirements of Yukon Environment—Contaminated Sites Regulations and the Yukon Government Special Waste Regulations.
 - .3 Requirements of the Federal PCB Regulations (SOR/2008-273).

- .3 Mould
 - .1 Suspect mould-impacted drywall is present on various walls within the basement.
 - .2 Specific removal of mould-impacted materials is not required as part of the Work. Workers should be notified of the presence of mould, and provided with with respiratory protection and/or other personal protective equipment as deemed necessary for the work that they will be conducting in contaminated areas.
 - .1 For the Work of this contract, contact with and/or working around mould-contaminated items is expected to be limited.

- .4 Mercury
 - .1 Complete removal of mercury-containing equipment is required prior to demolition activities that may disturb the equipment.
 - .2 When mercury-containing items (e.g., fluorescent light bulbs/tubes, thermostats) are removed, ensure all mercury waste is handled, stored and disposed of in accordance with the requirements the following:
 - .1 Yukon Government Special Waste Regulations.
 - .2 Transportation requirements of the Federal Transportation of Dangerous Goods Regulation.
 - .3 Precautions should be taken if workers may potentially be exposed to mercury or mercury vapours to ensure that worker exposure levels do not exceed the COHSR occupational exposure limit of 0.025 mg/m³. This can be achieved by providing respiratory and skin protection applicable to the hazard and task to be completed.

- .5 Ozone-Depleting Substances (ODSs)
 - .1 Removal and disposal of one suspected Lennox air handling unit (main floor) that may have ODS-containing refrigerants, is required.
 - .2 When refrigeration equipment that is suspect or confirmed ODS-containing is decommissioned, unless the refrigerant can be confirmed as non-ODS, it should be emptied and inspected by licensed refrigeration technician (as defined in the FHR 2003).
 - .3 When ODS-containing equipment is removed for disposal, ODSs must be handled, recycled, stored, and/or disposed of in

accordance with the requirements of with the Yukon's Ozone Depleting Substances (ODS) Regulations and the FHR 2003.

- .6 Silica
 - .1 Specific removal and disposal of silica-containing items is not required as part of this Contract, however, disturbance to silica-containing items is likely to occur during the Work.
 - .2 When silica-containing materials are to be disturbed, ensure dust control measures are employed such that airborne silica dust concentrations do not exceed the applicable exposure limits indicated in the current version of the COHSR. This would include, but not be limited to, the following:
 - .1 Providing workers with respiratory protection.
 - .2 Wetting the surface of the materials to prevent dust emissions.
 - .3 Providing workers with facilities to properly wash prior to exiting the work area.
 - .4 Providing dust control to mitigate the potential for demolition dust to escape from the work area into public and/or adjacent areas.

3.2 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning. Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: dispose of waste materials in accordance with the regulations and guidelines as outlined in this Section.
 - .1 Dispose of hazardous waste materials in accordance with applicable Federal and Territorial acts, regulations, and guidelines.
 - .2 Recycle hazardous wastes for which there is approved, cost effective recycling process available.
 - .3 Send hazardous wastes to authorized hazardous waste disposal or treatment facilities.
 - .4 Burning, diluting, or mixing hazardous wastes for purpose of disposal is prohibited.
 - .5 Disposal of hazardous materials in waterways, storm or sanitary sewers, or in Municipal solid waste landfills is prohibited.
 - .6 Dispose of hazardous wastes in timely fashion in accordance with applicable Federal and Territorial regulations.
 - .7 Minimize generation of hazardous waste to maximum extent practicable. Take necessary precautions to avoid mixing clean and contaminated wastes.
 - .8 Identify and evaluate recycling and reclamation options as alternatives to land disposal, such as:
 - .1 Hazardous wastes recycled in manner constituting disposal.
 - .2 Hazardous waste burned for energy recovery.

- .3 Lead-acid battery recycling.
- .4 Hazardous wastes with economically recoverable precious metals.

END OF SECTION

Part 1 General

1.1 SUMMARY

- .1 Refer to the following reports (further referred to herein as the “Assessment Reports”, and attached in Appendix A, for information pertaining to asbestos-containing materials (ACMs) that have been identified and will require disturbance during the Work:
 - .1 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “Hazardous Building Materials Assessments, RCMP Detachment, Teslin, YT” dated April 9, 2015, prepared for Public Works and Government Services Canada.
 - .2 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “Hazardous Building Materials Assessments, RCMP Detachment, Teslin, YT” dated November 3, 2016, prepared for Public Works and Government Services Canada.
 - .3 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “ Pre-Demolition Hazardous Building Materials Assessment, RCMP M Division Former Detachment, Johnson Road, Teslin, YT” dated October 23, 2017, prepared for Public Services and Procurement Canada.
 - .4 Stantec Consulting Ltd. Report for Project No. 123221201.200.100 entitled “Asbestos-Containing Materials Re-Assessment, RCMP M Division Former Detachment, Johnson Road, Teslin, YT” dated March 2019, prepared for Public Services and Procurement Canada.
 - .5 Antiquity Consulting Ltd. Report entitled “Hazardous Materials Limited Report, RCMP Detachment House, Teslin, Yukon” dated August 2019, prepared for Air Care Yukon.
 - .6 ALS Environmental Analytical Report entitled “Certificate of Analysis” dated April 3, 2020, prepared for CMS Construction Management Services (supplemental lead paint sampling).
 - .7 CMS Construction Management Services Site Visit Report entitled “Old Teslin RCMP Detachment Haz Mat Abatement & Building Demolition” dated May 13, 2020, prepared for Royal Canadian Mounted Police M Division
 - .8 EMSL Canada Inc. Analytical Report entitled “Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy” dated May 22, 2020, prepared for CMS Construction Management Services (supplemental asbestos bulk sampling).
 - .9 ALS Environmental Analytical Report entitled “Certificate of Analysis” dated May 26, 2020, prepared for CMS Construction Management Services (supplemental lead paint and leachate sampling).
- .2 Abatement shall be conducted to remove and dispose of ACMs as identified in the Assessment Reports in accordance with applicable regulations, guidelines, standards and/or best practices for such work.
- .3 Contractor is responsible for reviewing plans, specifications and reports such that they understand the locations and amounts of ACMs that will require abatement.
- .4 Where there is a discrepancy between the information in this specification as compared to the information in the Assessment Reports as it pertains to identities, locations and/or quantities of identified ACMs, the information in the Assessment Reports will prevail.

- .1 If discrepancies are present pertaining to identities, locations and/or quantities of identified hazardous building materials, it is the Contractor's responsibility to request information to clarify such discrepancies during the bidding period. No additional costs will be allowed by the Contractor for additional labour or materials required to complete required abatement related to such discrepancies that could otherwise have been clarified during the bidding period.
- .5 Contractor is responsible for any and all supplemental assessment and/or pre-work site visits necessary to satisfy the requirements of the YT OHS Reg. as they may pertain to appropriate documentation of the following:
 - .1 Project plan (sequencing of work, duration of work, addressing unknowns [if any], work methods, tools PPE, etc.)
 - .2 Site-specific hazard assessments/risk assessments, and development of site-specific safe work practices, as necessary
 - .3 Addressing potential for concealed or previously un-assessed potential ACMs
- .6 Documentation pertaining to 1.1.5 above is to be provided to Departmental Representative for review.
 - .1 Deviation that involves less stringent procedures must first be approved in writing by a Yukon Government Occupational Health and Safety Officer.
 - .2 If, in the opinion of the Departmental Representative, the work procedures developed by the Contractor do not meet the intent of the YT OHS Reg. or this specification, revisions will be required, at no cost to the Owner, and at no impact to the schedule.
- .7 The Contractor may choose to combine tasks outlined in this specification section with other tasks being completed under more stringent procedures (e.g. 02 82 00.02 – Asbestos Abatement Intermediate Precautions; 02 82 00.03 – Asbestos Abatement Maximum Precautions), provided that the procedures of the more stringent section will prevail for all “combined” work.
- .8 Unless otherwise determined through risk assessment conducted by the Contractor's competent person (certified in asbestos control procedures, per the requirements of the YT OHS Reg.), at a minimum, the Contractor is to comply with requirements of this Section when removing and disposing of the following identified ACMs:
 - .1 Square ducting with asbestos-containing brown duct mastic in the basement
 - .2 Asbestos-containing cement shingles on the exterior siding of the structure.
 - .3 Asbestos-containing cement panel on the exterior lower/foundation and/or staircase walls

1.2 SECTION INCLUDES

- .1 Requirements, applicable procedures and personal protective equipment to be utilized during asbestos abatement activities as outlined herein.

1.3 REFERENCES

- .1 Canadian Environmental Protection Act, 1999 (CEPA 1999)
 - .1 Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2005-149).

- .2 Department of Justice Canada (Jus)
 - .1 Transportation of Dangerous Goods Act, 1992 (TDG Act) [1992], (c. 34).
 - .2 Transportation of Dangerous Goods Regulations (T-19.01-SOR/2001-286).
- .3 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .4 National Research Council Canada Institute for Research in Construction (NRC-IRC).
 - .1 National Fire Code of Canada-(2010).
- .5 Yukon Government
 - .1 Yukon Territory Occupational Health and Safety Act and Regulations (YT OHS Reg.), including amendments to the date of the work
 - .2 Solid Waste Regulations, including amendments to the date of the work
 - .3 Special Waste Regulations, including amendments to the date of the work
 - .4 Contaminated Sites Regulation, including amendments to the date of the work
- .6 Government of Canada
 - .1 The Canada Labour Code, Part II, Canada Occupational Health and Safety Regulations (COHSR)

1.4 DEFINITIONS

- .1 HEPA vacuum: High Efficiency Particulate Air filtered vacuum equipment with filter system capable of collecting and retaining fibres greater than 0.3 microns in any direction at 99.97% efficiency.
- .2 Amended Water: water with non-ionic surfactant wetting agent added to reduce water tension to allow thorough wetting of fibres.
- .3 Asbestos Containing Materials (ACMs): materials that contain 0.5 per cent or more asbestos by dry weight (or vermiculite insulation materials with any asbestos) and are identified under Existing Conditions including fallen materials and settled dust.
- .4 Asbestos Work Area: area where work takes place which will, or may, disturb ACMs.
- .5 Authorized Visitors: Consultant or Departmental Representative and representatives of regulatory agencies.
- .6 Competent worker: in relation to specific work, means a worker who:
 - .1 Is qualified because of knowledge, training and experience to perform the work.
 - .2 Is familiar with the provincial and federal laws and with the provisions of the regulations that apply to the work.
 - .3 Has knowledge of all potential or actual danger to health or safety in the work.
- .7 Friable material: means material that:
 - .1 When dry, can be crumbled, pulverized or powdered by hand pressure, or
 - .2 is crumbled, pulverized or powdered.

- .8 Non-Friable Material: material that when dry cannot be crumbled, pulverized or powdered by hand pressure.
- .9 Occupied Area: any area of the building or work site that is outside Asbestos Work Area.
- .10 Polyethylene: polyethylene sheeting or rip-proof polyethylene sheeting with tape along edges, around penetrating objects, over cuts and tears, and elsewhere as required to provide protection and isolation.
- .11 Sprayer: garden reservoir type sprayer or airless spray equipment capable of producing mist or fine spray. Must have appropriate capacity for work.

1.5 SUBMITTALS

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit proof satisfactory to Departmental Representative that suitable arrangements have been made to dispose of asbestos-containing waste in accordance with requirements of authority having jurisdiction.
- .3 Submit Provincial and/or local requirements for Notice of Project Form.
- .4 Submit proof of Contractor's Asbestos Liability Insurance.
- .5 Submit to Departmental Representative necessary permits for transportation and disposal of asbestos-containing waste and proof that asbestos-containing waste has been received and properly disposed.
- .6 Submit proof that all asbestos workers and/or supervisor have received appropriate training from a competent person in the hazards of asbestos exposure, good personal hygiene and work practices while working in Asbestos Work Areas, and the use, cleaning and disposal of respirators and protective clothing. Instruction and training related to respirators includes, at minimum:
 - .1 Fitting of equipment.
 - .2 Inspection and maintenance of equipment.
 - .3 Disinfecting of equipment.
 - .4 Limitations of equipment.
- .7 Submit proof satisfactory to Departmental Representative that employees have respirator fitting and testing. Workers must be fit tested respirator that is personally issued.

1.6 QUALITY ASSURANCE

- .1 Regulatory Requirements: comply with Federal, Provincial and local requirements pertaining to asbestos, provided that in case of conflict among these requirements or with these specifications, more stringent requirement applies. Comply with regulations in effect at time Work is performed.
- .2 Health and Safety:
 - .1 Perform construction occupational health and safety in accordance with Section 01 35 33 - Health and Safety Requirements.

- .2 Safety Requirements: worker protection.
 - .1 Protective equipment and clothing to be worn by workers while in Asbestos Work Area include:
 - .1 Air purifying half-mask respirator with N-100, R-100 or P-100 particulate filter, personally issued to worker and marked as to efficiency and purpose, suitable for protection against asbestos and acceptable to Provincial Authority having jurisdiction. The respirator to be fitted so that there is an effective seal between the respirator and the worker's face, unless the respirator is equipped with a hood or helmet. The respirator to be cleaned, disinfected and inspected after use on each shift, or more often if necessary, when issued for the exclusive use of one worker, or after each use when used by more than one worker. The respirator to have damaged or deteriorated parts replaced prior to being used by a worker; and, when not in use, to be stored in a convenient, clean and sanitary location. The employer to establish written procedures regarding the selection, use and care of respirators, and a copy of the procedures to be provided to and reviewed with each worker who is required to wear a respirator. A worker not to be assigned to an operation requiring the use of a respirator unless he or she is physically able to perform the operation while using the respirator.
 - .2 Disposable-type protective clothing that does not readily retain or permit penetration of asbestos fibres. Protective clothing to be provided by the employer and worn by every worker who enters the work area, and the protective clothing shall consist of a head covering and full body covering that fits snugly at the ankles, wrists and neck, in order to prevent asbestos fibres from reaching the garments and skin under the protective clothing to include suitable footwear, and to be repaired or replaced if torn.
 - .2 Eating, drinking, chewing, and smoking are not permitted in Asbestos Work Area.
 - .3 Before leaving Asbestos Work Area, the worker can decontaminate his or her protective clothing by using a vacuum equipped with a HEPA filter, or by damp wiping, before removing the protective clothing, or, if the protective clothing will not be reused, place it in a container for dust and waste. The container to be dust tight, suitable for asbestos waste, impervious to asbestos, identified as asbestos waste, cleaned with a damp cloth or a vacuum equipped with a HEPA filter immediately before removal from the work area, and removed from the work area frequently and at regular intervals.
 - .4 Facilities for washing hands and face shall be provided within or close to the Asbestos Work Area.
 - .5 Ensure workers wash hands and face when leaving Asbestos Work Area. Facilities for washing are to be supplied by the Contractor.
 - .6 Ensure that no person required to enter an Asbestos Work Area has facial hair that affects seal between respirator and face.

1.7 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials in accordance with Section 02 81 01 – Hazardous Materials.

- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal packaging material in appropriate on-site bins for recycling.
- .4 Place materials defined as hazardous or toxic in designated containers.
- .5 Handle and dispose of hazardous materials in accordance with the CEPA, TDGA, Regional and Municipal regulations.
- .6 Fold up metal banding, flatten and place in designated area for recycling.
- .7 Disposal of asbestos waste generated by removal activities must comply with Federal, Provincial and Municipal regulations. Dispose of asbestos waste in sealed double thickness 6 mil bags or leak proof drums. Label containers with appropriate warning labels.
- .8 Provide manifests describing and listing waste created. Transport containers by approved means to licensed landfill for burial.

1.8 EXISTING CONDITIONS

- .1 Reports and information pertaining to ACMs to be removed and disposed of during the Work are attached in Appendix A.
- .2 Notify Departmental Representative of suspected ACM discovered during Work and not apparent from drawings, specifications, or report pertaining to Work. Do not disturb such material pending instructions from Departmental Representative.

1.9 SCHEDULING

- .1 Hours of Work: perform work during normal working hours as indicated in Contract Documents.

Part 2 Products

2.1 MATERIALS

- .1 Drop Sheets:
 - .1 Polyethylene: 0.15 mm thick.
 - .2 FR polyethylene: 0.15 mm thick woven fibre reinforced fabric bonded both sides with polyethylene.
- .2 Wetting Agent: 50% polyoxyethylene ester and 50% polyoxyethylene ether mixed with water in a concentration to provide thorough wetting of asbestos-containing material.
- .3 Waste Containers: contain waste in two separate containers.
 - .1 Inner container: 0.15 mm thick sealable polyethylene waste bag.
 - .2 Outer container: sealable metal or fibre type where there are sharp objects included in waste material; otherwise outer container may be sealable metal or fibre type or second 0.15 mm thick sealable polyethylene bag.

- .3 Labelling requirements: affix pre-printed cautionary asbestos warning in both official languages that is visible when ready for removal to disposal site.
- .4 Slow - drying sealer: non-staining, clear, water - dispersible type that remains tacky on surface for at least 8 hours and designed for purpose of trapping residual asbestos fibres.
- .5 Tape: fibreglass - reinforced duct tape suitable for sealing polyethylene under both dry conditions and wet conditions using amended water.

Part 3 Execution

3.1 PROCEDURES

- .1 Do construction occupational health and safety in accordance Section 01 35 33 - Health and Safety Requirements.
- .2 Work is generally to be conducted in accordance with the procedures stipulated in the and the YT OHS Reg. Where there are discrepancies between that document and this specification, the more stringent will apply.
- .3 Before beginning Work, isolate Asbestos Work Area using, minimum, preprinted cautionary asbestos warning signs in both official languages that are visible at access routes to Asbestos Work Area.
 - .1 Remove visible dust from surfaces in the work area where dust is likely to be disturbed during course of work.
 - .2 Use HEPA vacuum or damp cloths where damp cleaning does not create a hazard and is otherwise appropriate.
 - .3 Do not use compressed air to clean up or remove dust from any surface.
- .4 Prevent spread of dust from Asbestos Work Area using measures appropriate to work to be done.
 - .1 Use FR polyethylene drop sheets over flooring such as carpeting that absorbs dust and over flooring in Asbestos Work Area where dust and contamination cannot otherwise be safely contained. Drop sheets are not to be reused.
- .5 Wet materials containing asbestos to be cut, ground, abraded, scraped, drilled, or otherwise disturbed unless wetting creates hazard or causes damage.
 - .1 Use garden reservoir type low - velocity fine - mist sprayer.
 - .2 Perform Work to reduce dust creation to lowest levels practicable.
 - .3 Work will be subject to visual inspection and air monitoring.
 - .4 Contamination of surrounding areas indicated by visual inspection or air monitoring will require complete enclosure and clean-up of affected areas.
- .6 Frequently and at regular intervals during Work and immediately on completion of work:
 - .1 Dust and waste to be cleaned up and removed using a vacuum equipped with a HEPA filter, or by damp mopping or wet sweeping, and placed in a waste container, and
 - .2 Drop sheets to be wetted and placed in a waste container as soon as practicable.

- .7 Cleanup:
 - .1 Place dust and asbestos containing waste in sealed dust-tight waste bags. Treat drop sheets and disposable protective clothing as asbestos waste; wet and fold these items to contain dust, and then place in plastic bags.
 - .2 Clean exterior of each waste-filled bag using damp cloths or HEPA vacuum and place in second clean waste bag immediately prior to removal from Asbestos Work Area.
 - .3 Seal waste bags and remove from site. Dispose of in accordance with requirements of Provincial and Federal Authority having jurisdiction. Supervise dumping and ensure that dump operator is fully aware of hazardous nature of material to be dumped and that the appropriate guidelines and regulations for asbestos disposal are followed.
 - .4 Perform final thorough clean-up of Work areas and adjacent areas affected by Work using HEPA vacuum.

3.2 AIR MONITORING

- .1 From beginning of Work until completion of cleaning operations, and where necessary, Departmental Representative will take air samples inside and outside of Asbestos Work Areas in accordance with the requirements of the more stringent of the COHSR and the YT OHS Reg.
 - .1 Air samples will be collected and analyzed in accordance with NIOSH method 7400.
 - .2 Air sample results will be provided to the Contractor within 24-hours of sample collection.
 - .3 Analysis will be conducted by qualified persons or laboratories that take part in a documented QA/QC program for such analysis.
- .2 Contractor will be notified to stop Work when airborne fibre measurements exceed 0.05 fiber/cubic centimetre (f/cc), when PPE and protection factors are considered, and to correct procedures.
 - .1 Additional monitoring will be conducted, where possible, to verify procedural corrections were effective.
- .3 If air monitoring shows that areas outside Asbestos Work Area are contaminated as determined by the Departmental Representative, Contractor will be notified to maintain and clean these areas in same manner as that applicable to Asbestos Work Area, at no additional cost to the Contract.
- .4 When asbestos leakage from Asbestos Work Area has occurred, or is likely to occur Departmental Representative may order Work shutdown and correction of deficiencies.
 - .1 No additional costs will be allowed by Contractor for additional labour or materials required to provide specified performance level.
- .5 If clearance testing is required by a Yukon Government Occupational Health and Safety Officer, Contractor is to coordinate and schedule this testing directly with the Yukon Government, and is to provide schedule notification to the Departmental Representative.
 - .1 No additional costs will be allowed by Contractor for additional labour or materials required arising from:
 - .1 Delays associated with Yukon Government's required testing.

- .2 Addressing deficiencies arising from or identified by the Yukon Government Occupational Health and Safety Officer.
- .3 Scheduling or completing repeated testing events by the Departmental Representative or the Yukon Government Occupational Health and Safety Officer.

3.3 INSPECTION

- .1 Perform inspection of Asbestos Work Area to confirm compliance with specification and governing authority requirements. Deviations from these requirements that have not been approved in writing by Departmental Representative may result in Work stoppage, at no cost to Owner.
- .2 Departmental Representative may inspect Work for:
 - .1 Adherence to specific procedures and materials.
 - .2 Final cleanliness and completion.
- .3 No additional costs will be allowed by Contractor for additional labour or materials required to provide specified performance level.

END OF SECTION

Part 1 General

1.1 SUMMARY

- .1 Refer to the following reports (further referred to herein as the “Assessment Reports”, and attached in Appendix A, for information pertaining to asbestos-containing materials (ACMs) that have been identified and will require disturbance during the Work.
 - .1 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “Hazardous Building Materials Assessments, RCMP Detachment, Teslin, YT” dated April 9, 2015, prepared for Public Works and Government Services Canada.
 - .2 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “Hazardous Building Materials Assessments, RCMP Detachment, Teslin, YT” dated November 3, 2016, prepared for Public Works and Government Services Canada.
 - .3 Stantec Consulting Ltd. Report for Project No. 123220250 entitled “ Pre-Demolition Hazardous Building Materials Assessment, RCMP M Division Former Detachment, Johnson Road, Teslin, YT” dated October 23, 2017, prepared for Public Services and Procurement Canada.
 - .4 Stantec Consulting Ltd. Report for Project No. 123221201.200.100 entitled “Asbestos-Containing Materials Re-Assessment, RCMP M Division Former Detachment, Johnson Road, Teslin, YT” dated March 2019, prepared for Public Services and Procurement Canada.
 - .5 Antiquity Consulting Ltd. Report entitled “Hazardous Materials Limited Report, RCMP Detachment House, Teslin, Yukon” dated August 2019, prepared for Air Care Yukon.
 - .6 ALS Environmental Analytical Report entitled “Certificate of Analysis” dated April 3, 2020, prepared for CMS Construction Management Services (supplemental lead paint sampling).
 - .7 CMS Construction Management Services Site Visit Report entitled “Old Teslin RCMP Detachment Haz Mat Abatement & Building Demolition” dated May 13, 2020, prepared for Royal Canadian Mounted Police M Division
 - .8 EMSL Canada Inc. Analytical Report entitled “Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy” dated May 22, 2020, prepared for CMS Construction Management Services (supplemental asbestos bulk sampling).
 - .9 ALS Environmental Analytical Report entitled “Certificate of Analysis” dated May 26, 2020, prepared for CMS Construction Management Services (supplemental lead paint and leachate sampling).
- .2 Abatement shall be conducted to remove and dispose of ACMs as identified in the Assessment Reports in accordance with applicable regulations, guidelines, standards and/or best practices for such work.
- .3 Contractor is responsible for reviewing plans, specifications and reports such that they understand the locations and amounts of ACMs that will require abatement.
- .4 Where there is a discrepancy between the information in this specification as compared to the information in the Assessment Reports as it pertains to identities, locations and/or quantities of identified ACMs, the information in the Assessment Reports will prevail.

- .1 If discrepancies are present pertaining to identities, locations and/or quantities of identified hazardous building materials, it is the Contractor's responsibility to request information to clarify such discrepancies during the bidding period. No additional costs will be allowed by the Contractor for additional labour or materials required to complete required abatement related to such discrepancies that could otherwise have been clarified during the bidding period.
- .5 Contractor is responsible for any and all supplemental assessment and/or pre-work site visits necessary to satisfy the requirements of the YT OHS Reg. as they may pertain to appropriate documentation of the following:
 - .1 Project plan (sequencing of work, duration of work, addressing unknowns [if any], work methods, tools PPE, etc.)
 - .2 Site-specific hazard assessments/risk assessments, and development of site-specific safe work practices, as necessary
 - .3 Addressing potential for concealed or previously un-assessed potential ACMs
- .6 Documentation pertaining to 1.1.5 above is to be provided to Departmental Representative for review.
 - .1 Deviation that involves less stringent procedures must first be approved in writing by a Yukon Government Occupational Health and Safety Officer.
 - .2 If, in the opinion of the Departmental Representative, the work procedures developed by the Contractor do not meet the intent of the YT OHS Reg. or this specification, revisions will be required, at no cost to the Owner, and at no impact to the schedule.
- .7 Unless otherwise determined through risk assessment conducted by the Contractor's competent person (certified in asbestos control procedures, per the requirements of the YT OHS Reg.), at a minimum, the Contractor is to comply with requirements of this Section when removing and disposing of the following identified ACMs:
 - .1 Grey textured paint from concrete floor in the garage
 - .2 Texture coating from the ceiling of Room U-8
 - .3 Sheet flooring from various locations throughout (including removal of overlying floor materials, where applicable)

1.2 SECTION INCLUDES

- .1 Requirements for procedures and personal protective equipment to be utilized during abatement of ACMs as outlined herein.

1.3 REFERENCES

- .1 Canadian Environmental Protection Act, 1999 (CEPA 1999)
 - .1 Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2005-149).
- .2 Department of Justice Canada (Jus)
 - .1 Transportation of Dangerous Goods Act, 1992 (TDG Act) [1992], (c. 34).
 - .2 Transportation of Dangerous Goods Regulations (T-19.01-SOR/2001-286).
- .3 Health Canada / Workplace Hazardous Materials Information System (WHMIS)

- .1 Material Safety Data Sheets (MSDS).
- .4 National Research Council Canada Institute for Research in Construction (NRC-IRC).
 - .1 National Fire Code of Canada-(2010).
- .5 Yukon Government
 - .1 Yukon Territory Occupational Health and Safety Act and Regulations (YT OHS Reg.), including amendments to the date of the work
 - .2 Solid Waste Regulations, including amendments to the date of the work
 - .3 Special Waste Regulations, including amendments to the date of the work
 - .4 Contaminated Sites Regulation, including amendments to the date of the work
- .6 Government of Canada
 - .1 The Canada Labour Code, Part II, Canada Occupational Health and Safety Regulations (COHSR)

1.4 DEFINITIONS

- .1 Airlock: system for permitting ingress or egress without permitting air movement between contaminated area and uncontaminated area, typically consisting of two curtained doorways at least 2 m apart.
- .2 Amended Water: water with a non-ionic surfactant wetting agent added to reduce water tension to allow wetting of fibres.
- .3 Asbestos-Containing Materials (ACMs): materials that contain 0.5 per cent or more asbestos by dry weight (or vermiculite insulation materials with any asbestos) and are identified under Existing Conditions including fallen materials and settled dust.
- .4 Asbestos Work Areas: area where work takes place which will, or may disturb ACMs.
- .5 Authorized Visitors: Departmental Representative, Consultant, and representatives of regulatory agencies.
- .6 Curtained doorway: arrangement of closures to allow ingress and egress from one room to another while permitting minimal air movement between rooms, typically constructed as follows:
 - .1 Place two overlapping sheets of polyethylene over existing or temporarily framed doorway, secure each along top of doorway, secure vertical edge of one sheet along one vertical side of doorway, and secure vertical edge of other sheet along opposite vertical side of doorway.
 - .2 Reinforce free edges of polyethylene with duct tape and weight bottom edge to ensure proper closing.
 - .3 Overlap each polyethylene sheet at openings not less than 1.5 m on each side.
- .7 DOP Test: testing method used to determine integrity of Negative Pressure unit using dioctyl phthalate (DOP) HEPA-filter leak test.
- .8 Friable material: means material that:
 - .1 When dry, can be crumbled, pulverized or powdered by hand pressure, or

- .2 is crumbled, pulverized or powdered.
- .9 HEPA vacuum: High Efficiency Particulate Air filtered vacuum equipment with a filter system capable of collecting and retaining fibres greater than 0.3 microns in any direction at 99.97% efficiency.
- .10 Negative pressure: system that extracts air directly from work area, filters such extracted air through High Efficiency Particulate Air filtering system, and discharges this air directly outside work area to exterior of building.
 - .1 System to maintain minimum pressure differential of 5 Pa relative to adjacent areas outside of work areas, be equipped with alarm to warn of system breakdown, and be equipped with instrument to continuously monitor and automatically record pressure differences.
- .11 Non-Friable Materials: material that when dry cannot be crumbled, pulverized or powdered by hand pressure.
- .12 Occupied Areas: any area of building or work site that is outside Asbestos Work Area.
- .13 Polyethylene sheeting sealed with tape: polyethylene sheeting of type and thickness specified sealed with tape along edges, around penetrating objects, over cuts and tears, and elsewhere as required to provide continuous polyethylene membrane to protect underlying surfaces from water damage or damage by sealants, and to prevent escape of asbestos fibres through sheeting into clean area.
- .14 Qualified person or worker: in relation to specific work, means a worker who:
 - .1 Is qualified because of knowledge, training and experience to perform the work.
 - .2 Is familiar with the provincial and federal laws and with the provisions of the regulations that apply to the work.
 - .3 Has knowledge of all potential or actual danger to health or safety in the work.
- .15 Sprayer: garden reservoir type sprayer or airless spray equipment capable of producing mist or fine spray. Must be appropriate capacity for scope of work.

1.5 SUBMITTALS

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit proof satisfactory to Departmental Representative that suitable arrangements have been made to dispose of asbestos containing waste in accordance with requirements of authority having jurisdiction.
- .3 Submit Provincial and/or local requirements for Notice of Project Form.
- .4 Submit proof of Contractor's Asbestos Liability Insurance.
- .5 Submit to Departmental Representative necessary permits for transportation and disposal of asbestos containing waste and proof that asbestos containing waste has been received and properly disposed.
- .6 Submit proof that all asbestos workers and/or supervisor have received appropriate training and education by a competent person in the hazards of asbestos exposure, good personal hygiene and work practices while working in Asbestos Work Areas, and the use,

cleaning and disposal of respirators and protective clothing. Instruction and training related to respirators is to include, at a minimum:

- .1 Fitting of equipment.
- .2 Inspection and maintenance of equipment.
- .3 Disinfecting of equipment.
- .4 Limitations of equipment.
- .7 Submit proof that supervisory personnel have attended asbestos abatement course, of not less than two days duration.
- .8 Submit Worker's Compensation Board status and transcription of insurance.
- .9 Submit documentation including test results, fire and flammability data, and Material Safety Data Sheets (MSDS) for chemicals or materials including:
 - .1 Encapsulants;
 - .2 Amended water;
 - .3 Slow drying sealer.
- .10 Submit proof satisfactory to Departmental Representative that employees have respirator fitting and testing. Workers must be fit tested (irritant smoke test) with respirator that is personally issued.

1.6 QUALITY ASSURANCE

- .1 Regulatory Requirements: comply with Federal, Provincial and local requirements pertaining to asbestos, provided that in case of conflict among those requirements or with these specifications more stringent requirement applies. Comply with regulations in effect at time work is performed.
- .2 Health and Safety:
 - .1 Perform construction occupational health and safety in accordance with Section 01 35 29 - Health and Safety Requirements.
 - .2 Safety Requirements: worker and visitor protection.
 - .1 Protective equipment and clothing to be worn by workers while in Asbestos Work Area includes, at a minimum:
 - .1 Full-facepiece powered air purifying respirator (PAPR) with P-100 particulate filter, personally issued to worker and marked as to efficiency and purpose, suitable for protection against asbestos and acceptable to Provincial Authority having jurisdiction. The respirator to be fitted so that there is an effective seal between the respirator and the worker's face, unless the respirator is equipped with a hood or helmet. The respirator to be cleaned, disinfected and inspected after use on each shift, or more often if necessary, when issued for the exclusive use of one worker, or after each use when used by more than one worker. The respirator to have damaged or deteriorated parts replaced prior to being used by a worker; and, when not in use, to be stored in a convenient, clean and sanitary location. The employer to establish written procedures regarding the selection, use and care of respirators, and a copy of the procedures to be provided to and

reviewed with each worker who is required to wear a respirator. A worker not to be assigned to an operation requiring the use of a respirator unless he or she is physically able to perform the operation while using the respirator.

- .2 Disposable type protective clothing that does not readily retain or permit penetration of asbestos fibres. Protective clothing to be provided by the employer and worn by every worker who enters the work area, and the protective clothing to consist of a head covering and full body covering that fits snugly at the ankles, wrists and neck, in order to prevent asbestos fibres from reaching the garments and skin under the protective clothing. It includes suitable footwear, and it to be repaired or replaced if torn.

Requirements for each worker:

- .1 Remove street clothes in clean change room and put on respirator with new filters or reusable filters that have been tested as satisfactory, clean coveralls and head covers before entering Equipment and Access Rooms or Asbestos Work Area. Store street clothes, uncontaminated footwear, towels, and similar uncontaminated articles in clean change room.
 - .2 Remove gross contamination from clothing before leaving work area then proceed to Equipment and Access Room and remove clothing except respirators. Place contaminated work suits in receptacles for disposal with other asbestos - contaminated materials. Leave reusable items except respirator in Equipment and Access Room. Still wearing the respirator proceed naked to showers. Using soap and water wash body and hair thoroughly. Clean outside of respirator with soap and water while showering; remove respirator; remove filters and wet them and dispose of filters in container provided for purpose; and wash and rinse inside of respirator. When not in use in work area, store work footwear in Equipment and Access Room. Upon completion of asbestos abatement, dispose of footwear as contaminated waste or clean thoroughly inside and out using soap and water before removing from work area or from Equipment and Access Room.
 - .3 After showering and drying off, proceed to clean change room and dress in street clothes at end of each day's work, or in clean coveralls before eating, smoking, or drinking. If re-entering work area, follow procedures outlined in paragraphs above.
 - .4 Enter unloading room from outside dressed in clean coveralls to remove waste containers and equipment from Holding Room of Container and Equipment Decontamination Enclosure system. Workers must not use this system as means to leave or enter work area.
- .2 Eating, drinking, chewing, and smoking are not permitted in Asbestos Work Area.

- .3 Ensure workers are fully protected with respirators and protective clothing during preparation of system of enclosures prior to commencing actual asbestos abatement.
- .4 Provide and post in Clean Change Room and in Equipment and Access Room the procedures described in this Section, in both official languages.
- .5 Ensure that no person required to enter an Asbestos Work Area has facial hair that affects seal between respirator and face.
- .6 Visitor Protection:
 - .1 Provide protective clothing and approved respirators to Authorized Visitors to work areas.
 - .2 Instruct Authorized Visitors in the use of protective clothing, respirators and procedures.
 - .3 Instruct Authorized Visitors in proper procedures to be followed in entering into and exiting from Asbestos Work Area.

1.7 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials in accordance Section 02 81 01 – Hazardous Materials.
- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal packaging material in appropriate on-site bins for recycling.
- .4 Separate for reuse and recycling and place in designated containers steel, metal, and plastic waste.
- .5 Place materials defined as hazardous or toxic in designated containers.
- .6 Handle and dispose of hazardous materials in accordance with the CEPA, TDGA, Regional and Municipal regulations.
- .7 Fold up metal banding, flatten and place in designated area for recycling.
- .8 Disposal of asbestos waste generated by removal activities must comply with Federal, Provincial and Municipal regulations. Dispose of asbestos waste in sealed double thickness 6 mil bags or leak proof drums. Label containers with appropriate warning labels.
- .9 Provide manifests describing and listing waste created. Transport containers by approved means to licenced landfill for burial.

1.8 EXISTING CONDITIONS

- .1 Reports and information pertaining to ACMs to be removed and disposed of during the Work are attached in Appendix A.
- .2 Notify Departmental Representative of suspected ACM discovered during Work and not apparent from drawings, specifications, or report pertaining to Work. Do not disturb such material pending instructions from Departmental Representative.

1.9 SCHEDULING

- .1 Hours of Work: perform work during normal working hours as indicated in Contract Documents.
- .2 Contractor is to notify Departmental Representative of schedule for activities planned under this Section, if any, at least 5 business days prior to initiation.

Part 2 Products

2.1 MATERIALS

- .1 Polyethylene: minimum 0.15 mm thick unless otherwise specified; in sheet size to minimize joints.
- .2 FR polyethylene: minimum 0.15 mm thick, woven fibre reinforced fabric bonded both sides with polyethylene.
- .3 Tape: tape suitable for sealing polyethylene to surfaces under both dry and wet conditions using amended water.
- .4 Waste Containers: contain waste in two separate containers.
 - .1 Inner container: 0.15 mm thick sealable polyethylene bag.
 - .2 Outer container: sealable metal or fibre type where there are sharp objects included in waste material; otherwise outer container may be sealable metal or fibre type or second 0.15 mm thick sealable polyethylene bag.
 - .3 Labelling requirements: affix preprinted cautionary asbestos warning, in both official languages, that is visible when ready for removal to disposal site. Label containers in accordance with Asbestos Regulations 29 CFR 1910.1001. Label in both official languages.
- .5 Slow - drying sealer: non-staining, clear, water - dispersible type that remains tacky on surface for at least 8 hours and designed for purpose of trapping residual asbestos fibres.
 - .1 Sealer: flame spread and smoke developed rating less than 50.
- .6 Encapsulants: Type 1 penetrating type Class A water based conforming to CAN/CGSB-1.205 and approved by the Fire Commissioner of Canada.

Part 3 Execution

3.1 PREPARATION

- .1 Do construction occupational health and safety in accordance with Section 01 35 29 - Health and Safety Requirements.
- .2 Work Areas:
 - .1 Shut off and isolate air handling and ventilation systems to prevent fibre dispersal to other building areas during work phase. Conduct smoke tests to ensure that duct work is airtight. Seal and caulk joints and seams of active return air ducts within Asbestos Work Area.

- .2 Clean proposed work areas using, where practicable, HEPA vacuum cleaning equipment. If not practicable, use wet cleaning method. Do not use methods that raise dust, such as dry sweeping, or vacuuming using other than HEPA vacuum equipment.
 - .3 The spread of dust from the work area to be prevented by:
 - .1 Using enclosures of polyethylene or other suitable material that is impervious to asbestos (including, if the enclosure material is opaque, one or more transparent window areas to allow observation of the entire work area from outside the enclosure), if the work area is not enclosed by walls.
 - .2 Using curtains of polyethylene sheeting or other suitable material that is impervious to asbestos, fitted on each side of each entrance or exit from the work area.
 - .4 Put negative pressure system in operation and operate continuously from time first polyethylene is installed to seal openings until final completion of work including final cleanup. The system to maintain a negative air pressure, relative to the area outside the enclosed area. The system to be inspected and maintained by a competent person prior each use to ensure that there is no air leakage, and if the filter is found to be damaged or defective, it to be replaced before the ventilation system is used.
 - .5 Seal off openings such as corridors, doorways, windows, skylights, ducts, grilles, and diffusers, with polyethylene sheeting sealed with tape.
 - .6 Cover floor and wall surfaces with polyethylene sheeting sealed with tape. Cover floors first so that polyethylene extends at least 300 mm up walls then cover walls to overlap floor sheeting.
 - .7 Build airlocks at entrances to and exits from work areas so that work areas are always closed off by one curtained doorway when workers enter or exit.
 - .8 At each access to work areas install warning signs in both official languages in upper case "Helvetica Medium" letters reading as follows where number in parentheses indicates font size to be used: "CAUTION ASBESTOS HAZARD AREA (25 mm) NO UNAUTHORIZED ENTRY (19 mm) WEAR ASSIGNED PROTECTIVE EQUIPMENT (19 mm) BREATHING ASBESTOS DUST MAY CAUSE SERIOUS BODILY HARM (7 mm)".
 - .9 Maintain emergency and fire exits from work areas, or establish alternative exits satisfactory to Fire Commissioner of Canada and Provincial Fire Marshall Authority having jurisdiction.
 - .10 Where application of water is required for wetting asbestos containing materials, shut off electrical power, provide 24 volt safety lighting and ground fault interrupter circuits on power source for electrical tools, in accordance with applicable CSA Standard. Ensure safe installation of electrical lines and equipment.
 - .11 After preparation of work areas and Decontamination Enclosure Systems, for the removal of all other asbestos containing materials, remove within work area and dispose of as contaminated waste in specified containers. Spray asbestos debris and immediate work area with amended water to reduce dust, as work progresses.
- .3 Worker Decontamination Enclosure System:
 - .1 Worker Decontamination Enclosure System includes Equipment and Access Room, Shower Room, and Clean Room, as follows:

- .1 Equipment and Access Room: build Equipment and Access Room between Shower Room and work area[s], with two curtained doorways, one to Shower Room and one to work area[s]. Install waste receptor, and storage facilities for workers' shoes and protective clothing to be reworn in work area[s]. Build Equipment and Access Room large enough to accommodate specified facilities, other equipment needed, and at least one worker allowing him /her sufficient space to undress comfortably.
 - .2 Shower Room: build Shower Room between Clean Room and Equipment and Access Room, with two curtained doorways, one to Clean Room and one to Equipment and Access Room. Provide one shower for every five workers. Provide constant supply of hot and cold or warm water. Provide piping and connect to water sources and drains. Pump waste water through 5 micrometre filter system before directing into drains. Provide soap, clean towels, and appropriate containers for disposal of used respirator filters.
 - .3 Clean Room: build Clean Room between Shower Room and clean areas outside of enclosures, with two curtained doorways, one to outside of enclosures and one to Shower Room. Provide lockers or hangers and hooks for workers' street clothes and personal belongings. Provide storage for clean protective clothing and respiratory equipment. Install mirror to permit workers to fit respiratory equipment properly.
- .4 Container and Equipment Decontamination Enclosure System:
- .1 Container and Equipment Decontamination Enclosure System consists of Staging Area within work area, Washroom, Holding Room, and Unloading Room. Purpose of system is to provide means to decontaminate waste containers, scaffolding, waste and material containers, vacuum and spray equipment, and other tools and equipment for which Worker Decontamination Enclosure System is not suitable.
 - .1 Staging Area: designate Staging Area in work area for gross removal of dust and debris from waste containers and equipment, labelling and sealing of waste containers, and temporary storage pending removal to Washroom. Equip Staging Area with curtained doorway to Washroom.
 - .2 Washroom: build Washroom between Staging Area and Holding Room with two curtained doorways, one to Staging Area and one to Holding Room. Provide high - pressure low - volume sprays for washing of waste containers and equipment. Pump waste water through 5 micrometre filter system before directing into drains. Provide piping and connect to water sources and drains.
 - .3 Holding Room: build Holding Room between Washroom and Unloading Room, with two curtained doorways, one to Washroom and one to Unloading Room. Build Holding Room sized to accommodate at least two waste containers and largest item of equipment used.
 - .4 Unloading Room: build Unloading Room between Holding Room and outside, with two curtained doorways, one to Holding Room and one to outside.
- .5 Construction of Decontamination Enclosures:
- .1 Build suitable framing for enclosures or use existing rooms where convenient, and line with polyethylene sheeting sealed with tape.

- .2 Build curtained doorways between enclosures so that when people move through or when waste containers and equipment are moved through doorway, one of two closures comprising doorway always remains closed.
- .6 Maintenance of Enclosures:
 - .1 Maintain enclosures in tidy condition.
 - .2 Ensure that barriers and polyethylene linings are effectively sealed and taped. Repair damaged barriers and remedy defects immediately upon discovery.
 - .3 Visually inspect enclosures at beginning of each working period.
 - .4 Use smoke methods to test effectiveness of barriers when directed by Consultant.
- .7 Do not begin Asbestos Abatement work until:
 - .1 Arrangements have been made for disposal of waste.
 - .2 For wet stripping techniques, arrangements have been made for containing, filtering, and disposal of waste water.
 - .3 Work area[s] and decontamination enclosures are effectively segregated.
 - .4 Tools, equipment, and materials waste containers are on hand.
 - .5 Arrangements have been made for building security.
 - .6 Warning signs are displayed where access to contaminated areas is possible.
 - .7 Notifications have been completed and other preparatory steps have been taken.

3.2 SUPERVISION

- .1 Minimum of one Supervisor for every ten workers is required.
- .2 Approved Supervisor must remain within Asbestos Work Area during disturbance, removal, or other handling of asbestos containing materials.

3.3 PROCEDURES

- .1 Where discrepancies exist between this specification and the YT OHS Reg., the more stringent will apply.
- .2 Before removing asbestos:
 - .1 Prepare site.
 - .2 Spray asbestos material with water containing specified wetting agent, using airless spray equipment capable of providing "mist" application to prevent release of fibres. Saturate asbestos material sufficiently to wet it to substrate without causing excess dripping. Spray asbestos material repeatedly during work process to maintain saturation and to minimize asbestos fibre dispersion.
- .3 Remove saturated asbestos material in small sections. Do not allow saturated asbestos to dry out. As it is being removed pack material in sealable plastic bags 0.15 mm minimum thick and place in labelled containers for transport.
- .4 Seal filled containers. Clean external surfaces thoroughly by wet sponging. Remove from immediate working area to Staging Area. Clean external surfaces thoroughly again by wet sponging before moving containers to decontamination Washroom. Wash containers thoroughly in decontamination Washroom, and store in Holding Room pending removal

to Unloading Room and outside. Ensure that containers are removed from Holding Room by workers who have entered from uncontaminated areas dressed in clean coveralls.

- .5 After completion of removal work, wire brush, HEPA vacuum and/or wet-sponge surfaces from which asbestos has been removed to remove visible material.
- .6 Where Departmental Representative decides complete removal of asbestos containing material is impossible due to obstructions such as structural members or major service elements, and provides written direction, encapsulate material as follows:
 - .1 Apply penetrating type sealer to penetrate existing sprayed asbestos surfaces uniformly to substrate.
- .7 After removal of visible asbestos, and after encapsulating asbestos containing material impossible to remove, wet clean entire work area including Equipment and Access Room, and equipment used in process. After 24 hour period to allow for dust settling, wet clean these areas and objects again. During this settling period no entry, activity, or ventilation will be permitted. After second 24 hour period under same conditions, clean these areas and objects again using HEPA vacuum followed by wet cleaning. After inspection by Consultant apply continuous coat of slow drying sealer to surfaces of work area. Allow at least 16 hours with no entry, activity, ventilation, or disturbance other than operation of negative pressure units during this period.
- .8 Work is subject to visual inspection and air monitoring. Contamination of surrounding areas indicated by visual inspection or air monitoring will require complete enclosure and clean-up of affected areas.
- .9 Cleanup:
 - .1 Frequently during Work and immediately after completion of work, clean up dust and asbestos containing waste using HEPA vacuum or by damp mopping.
 - .2 Place dust and asbestos containing waste in sealed dust tight waste bags. Treat drop sheets and disposable protective clothing as asbestos waste and wet and fold to contain dust and then place in waste bags.
 - .3 Immediately before their removal from Asbestos Work Area and disposal, clean each filled waste bag using damp cloths or HEPA vacuum and place in second clean waste bag.
 - .4 Seal and remove double bagged waste from site. Dispose of in accordance with requirements of Provincial and Federal authority having jurisdiction. Supervise dumping and ensure that dump operator is fully aware of hazardous nature of material to be dumped and that guidelines and regulations for asbestos disposal are followed.
 - .5 Perform final thorough clean-up of Asbestos Work Areas and adjacent areas affected by Work using HEPA vacuum.

3.4 FINAL CLEANUP

- .1 Remove polyethylene sheet by rolling it away from walls to centre of work area. Vacuum visible asbestos containing particles observed during cleanup, immediately, using HEPA vacuum equipment.
- .2 Place polyethylene seals, tape, cleaning material, clothing, and other contaminated waste in plastic bags and sealed labelled waste containers for transport.

- .3 Include in clean-up Work areas, Equipment and Access Room, Washroom, Shower Room, and other contaminated enclosures.
- .4 Include in clean-up sealed waste containers and equipment used in Work and remove from work areas, via Container and Equipment Decontamination Enclosure System, at appropriate time in cleaning sequence.
- .5 As work progresses, and to prevent exceeding available storage capacity on site, remove sealed and labelled containers containing asbestos waste and dispose of to authorized disposal area in accordance with requirements of disposal authority. Ensure that each shipment of containers transported to dump is accompanied by Contractor's representative to ensure that dumping is done in accordance with governing regulations.

3.5 AIR MONITORING

- .1 From beginning of Work until completion of cleaning operations, Departmental Representative will take air samples inside and outside of Asbestos Work Area in accordance with the requirements of the more stringent of the COHSR and the YT OHS Reg.
 - .1 Air samples will be collected and analyzed in accordance with NIOSH method 7400.
 - .2 Air sample results will be provided to the Contractor within 24-hours of sample collection.
 - .3 Analysis will be conducted by qualified persons or laboratories that take part in a documented QA/QC program for such analysis.
- .2 Contractor to stop Work when airborne fibre measurements exceed 0.05 fiber/cubic centimetre (f/cc), when PPE and protection factors are considered, and to correct procedures.
- .3 Additional monitoring will be conducted, where possible, to verify procedural corrections were effective.
- .4 If air monitoring shows that areas outside Asbestos Work Area are contaminated as determined by the Departmental Representative, Contractor will be notified to maintain and clean these areas in same manner as that applicable to Asbestos Work Area, at no additional cost to the Contract.
- .5 When asbestos leakage from Asbestos Work Area has occurred, or is likely to occur Departmental Representative may order Work shutdown and correction of deficiencies.
 - .1 No additional costs will be allowed by Contractor for additional labour or materials required to provide specified performance level.
- .6 If clearance testing is required by a Yukon Government Occupational Health and Safety Officer, Contractor is to coordinate and schedule this testing directly with the Yukon Government, and is to provide schedule notification to the Departmental Representative.
 - .1 No additional costs will be allowed by Contractor for additional labour or materials required arising from:
 - .1 Delays associated with Yukon Government's required testing.
 - .2 Addressing deficiencies arising from or identified by the Yukon Government Occupational Health and Safety Officer.

- .3 Scheduling or completing repeated testing events by the Departmental Representative or the Yukon Government Occupational Health and Safety Officer.

3.6 INSPECTION

- .1 Perform inspection of Asbestos Work Area to confirm compliance with specification and governing authority requirements. Deviations from these requirements that have not been approved in writing by Departmental Representative may result in Work stoppage, at no cost to Owner.
- .2 Departmental Representative may inspect Work for:
 - .1 Adherence to specific procedures and materials.
 - .2 Final cleanliness and completion.
 - .3 No additional costs will be allowed by Contractor for additional labour or materials required to provide specified performance level.

END OF SECTION

APPENDIX A

Reports

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

RCMP Detachment
Teslin, YT



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April 9, 2015

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Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Public Works and Government Services Canada (PWGSC) on behalf of the Royal Canadian Mounted Police (RCMP) to conduct hazardous building materials assessments within 6 buildings (subject buildings) associated with the Teslin RCMP detachment, located in Teslin, YT.

The purpose of the assessment was to check for potential hazardous building materials that may require special attention in accordance with the requirements of the Canada Labour Code, Part II (Canada Labour Code), Yukon Workers' Compensation Health and Safety Board (WCB) and the current version of the *Yukon Territory Occupational Health and Safety Act and Regulations* (YT OHS Reg.), for continued operations and maintenance.

The hazardous building materials considered included asbestos-containing materials (ACMs), lead-containing materials including lead-containing paints (LCPs), polychlorinated biphenyls (PCBs), mercury-containing items, ozone-depleting substances (ODSs), mould-impacted building materials and silica.

Based on Stantec's visual assessment and on the laboratory analyses performed on samples collected, hazardous building materials were identified within many of the subject buildings.

A summary of our findings and recommendations is presented below. It should be noted that this summary is subject to the same restrictions and limitations as presented in **Section 3** (Assessment Limitations) and **Section 6** (Closure). The information provided is to be read in conjunction with the remainder of this report.

NOTE: Where particular hazardous building materials are not listed in the following table, they were not identified in that particular building.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Summary of Identified Hazardous Building Materials	
Building	Identified Hazardous Building Materials
House #17: Residence	<p>Lead</p> <ul style="list-style-type: none"> Lead is expected to be present in solder used on copper domestic pipes and caulking on bell fittings for cast iron drainage pipes. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete in the foundation/floors.
House #23: Residence	<p>Lead</p> <ul style="list-style-type: none"> Lead is expected to be present in solder used on copper domestic pipes and caulking on bell fittings for cast iron drainage pipes. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete in the foundation/floors.
823223: Old Detachment	<p>Asbestos</p> <ul style="list-style-type: none"> Brown duct mastic throughout is asbestos-containing. Cement panel on the exterior siding under the first layer of siding is asbestos-containing. Tan sheet flooring with grey dots in the front foyer, central stairwell to basement and stairwell to cells is asbestos-containing. Orange and yellow sheet flooring in the second floor bathroom is asbestos-containing. <p>Lead</p> <ul style="list-style-type: none"> Blue paint on cement on the main floor is lead-containing. Grey paint on the cement floor in the basement is lead-containing. Cream paint on the interior basement walls is lead-containing. Blue paint on the exterior deck (over red primer) is lead-containing. White paint on the exterior siding is lead-containing. Blue paint on the exterior trim is lead-containing. Lead is expected to be present in solder used on copper domestic pipes, caulking on bell fittings for cast iron drainage pipes and in electrical equipment (i.e., batteries for emergency lighting/signage). <p>Mould</p> <ul style="list-style-type: none"> Moisture stained drywall throughout the basement was observed. <p>Mercury</p> <ul style="list-style-type: none"> One (1) suspected mercury-containing thermometer was observed on the main floor in the southwest room, as indicated on the attached floor plan drawings. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete observed in various locations throughout.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Summary of Identified Hazardous Building Materials	
Building	Identified Hazardous Building Materials
823235: Garage	<p>Lead</p> <ul style="list-style-type: none"> Lead is expected to be present in solder used on copper domestic pipes, caulking on bell fittings for cast iron drainage pipes and in electrical equipment (i.e., batteries for emergency lighting/signage). <p>Mercury</p> <ul style="list-style-type: none"> Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in thirty (30) fluorescent light fixtures. In addition one (1) suspected mercury-containing thermometer was observed in the garage, as indicated on the attached floor plan drawings. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete in the foundation/floors.
823236: Main Detachment	<p>Lead</p> <ul style="list-style-type: none"> Lead is expected to be present in solder used on copper domestic pipes, caulking on bell fittings for cast iron drainage pipes and in electrical equipment (i.e., batteries for emergency lighting/signage). <p>Mould</p> <ul style="list-style-type: none"> Water stained ceiling tiles were observed in the basement by the oil storage tanks. <p>Mercury</p> <ul style="list-style-type: none"> Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in thirty-six (36) fluorescent light fixtures. In addition one (1) suspected mercury-containing thermometer was observed in the holding/cell area, as indicated on the attached floor plan drawings. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete, cement and ceramic tiles observed in various locations throughout.
823256: Residence	<p>Lead</p> <ul style="list-style-type: none"> Lead is expected to be present in solder used on copper domestic pipes and caulking on bell fittings for cast iron drainage pipes. <p>Mercury</p> <ul style="list-style-type: none"> Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in two (2) fluorescent light fixtures. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete in the foundation/floors.

Building-by-building summaries of the identified hazardous building materials, as well as building-specific recommendations to address identified hazardous building materials in non-compliant conditions are provided in **Appendix B through Appendix G**. General findings and recommendations pertaining to hazardous building materials within the subject buildings are provided in **Section 4** and **Section 5** of this report.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Introduction
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1.0 INTRODUCTION

Stantec Consulting Ltd. (Stantec) was retained by Public Works and Government Services Canada (PWGSC) on behalf of the Royal Canadian Mounted Police (RCMP) to conduct hazardous building materials assessments within 6 buildings (subject buildings) associated with the Teslin RCMP detachment, located in Teslin, YT.

The purpose of the assessment was to check for potential hazardous building materials that may require special attention in accordance with the requirements of the Canada Labour Code, Part II (Canada Labour Code), Yukon Workers' Compensation Health and Safety Board (WCB) and the current version of the *Yukon Territory Occupational Health and Safety Act and Regulations* (YT OHS Reg.), for continued operations and maintenance.

The hazardous building materials considered included asbestos-containing materials (ACMs), lead-containing materials including lead-containing paints (LCPs), polychlorinated biphenyls (PCBs), mercury-containing items, ozone-depleting substances (ODSs), suspected mould-impacted building materials and silica.

The site work was conducted by Keith Irwin and Kim Wiese of Stantec on March 3, 2015.

1.1 UNDERSTANDING OF THE PROJECT

Stantec understands that the information pertaining to the identity, location and approximate extent of hazardous building materials (if any) within the subject building is either not on-file or outdated. As such, and in accordance with the requirements of the Canada Labour code, the YT OHS Reg. and PWGSC's internal management practices pertaining to identifying hazards associated with hazardous building materials in the workplace, PWGSC commissioned this assessment.

A list of the buildings included in this assessment is provided in **Appendix A**.

2.0 SCOPE AND METHODOLOGY

Keith Irwin and Kim Wiese of Stantec conducted a visual assessment within the subject buildings on March 3, 2015. Site work was conducted in general compliance with the requirements of the Canada Labour Code, the WCB, the current version of the YT OHS Reg. and Stantec's Safe Work Practices (SWPs).

Mechanical systems, structures and finishes of the subject buildings were visually examined to determine the suspected presence of ACMs, lead including LCPs, PCBs, mercury, ODSs, mould, and silica. Where building materials were suspected but not confirmed to contain asbestos, lead (in paint), or mould samples were collected for analysis to confirm or deny the presence of

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Scope and Methodology

April 9, 2015

these hazardous materials. Based on analytical results, visually similar materials were referenced to specific analyzed samples to reduce the number of samples collected.

Additional background information and the methodology used for the determination of presence or absence of each specific hazardous material considered in this assessment are outlined in the following sections.

2.1 ASBESTOS

The common use of friable (materials which, when dry, can be easily crumbled or powdered by hand pressure) ACMs in construction generally ceased voluntarily in the mid-1970s but was only banned through legislation by the late 1980s. Friable asbestos was used in many building products, primarily high temperature insulations, spray-applied structural fireproofing, and a material known as vermiculite that was commonly used as block wall insulation and may be contaminated with asbestos fibres. Asbestos was also used in many non-friable manufactured products such as floor tiles, ceiling tiles, Transite™ cement products, and various other construction materials. Some cement products currently used in the construction of buildings may still contain asbestos.

The presence of asbestos in federal workplaces, and pertaining to federally regulated workers is governed by the Canada Labour Code. The presence of asbestos in the workplace in the Yukon pertaining to territorially regulated workers is governed by the WCB, with provisions published in the current version of the YT OHS Reg. As both federally regulated workers and territorially regulated workers (e.g., contractors) are expected to carry out work activities within the subject buildings, and as the territorial regulations are generally more prescriptive pertaining to asbestos (and generally include the requirements noted in the Canada Labour Code), this assessment was conducted to meet the requirements of the current version of the YT OHS Reg.

According to current version of the YT OHS Reg., asbestos-containing material (ACM) means any material which is found to contain any asbestos.

Based on this criterion, a visual assessment of accessible areas was undertaken in order to check for the presence of materials suspected of containing asbestos. Locations to collect discrete bulk asbestos samples of suspect building materials were identified. Samples of representative materials were then collected at these locations.

Multiple samples were collected from each "homogenous application" of observed suspected ACMs (materials suspected to contain asbestos that are uniform in material type, colour, texture application and estimated installation date) and submitted to EMSL Canada Inc. (EMSL) in Mississauga, Ontario for analysis of asbestos content using polarized light microscopy (PLM) with dispersion staining, in accordance with the United States Environmental Protection Agency (EPA) 600/R-93/116 method.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

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The number of samples to be collected for each homogenous application of a suspected ACM was based on accepted occupational hygiene standards and protocols, along with the assessor's experience and understanding of the consistency of that building material's application.

EMSL's analytical laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

2.1.1 Sample Results Interpretation

When asbestos is detected in one of the samples within a set that was collected to represent a "homogenous application" of a particular material, the entire sample set and the entire application of that material is then considered to be an ACM.

In addition to the above, a "positive stop" option was used during the laboratory analysis of the building material samples submitted for asbestos analysis. The "positive stop" option is utilized by the laboratory when asbestos is detected at a concentration of greater than one percent in one of the samples within a set that was collected to represent a "homogenous application" of that material. At this point, further analysis of subsequent samples within the set is deemed to be unnecessary (as the entire set will be considered an ACM, per above), and the remainder of the samples within the set are not analysed.

2.1.2 Potential Asbestos-Containing Vermiculite Insulation

As part of the assessment, Stantec assessed the subject buildings for areas where vermiculite insulation, a potential ACM, would likely be present. This included making note of and assessing attic spaces, floor cavities and masonry or brick walls, which are typical areas where vermiculite is found. Where masonry or brick walls were observed, destructive assessment (drilling) was not conducted to assess the cavity for the presence of vermiculite.

2.1.3 Asbestos Sampling Quality Assurance/Quality Control

Sampling activities pertaining to asbestos were conducted in accordance with Stantec's Safe Work Practices (SWPs), which take into account current territorial regulations pertaining to such work (i.e., sampling procedures, required number of samples, and laboratory analytical procedures).

Representative bulk samples were collected of accessible suspect ACMs in sufficient quantities for laboratory analyses. Suspect ACM samples were sealed in polyethylene zip-lock bags labeled with the sample number, suspect material description, and sample location. As part of sampling procedures, sampling tools were cleaned between sample collection events to avoid the potential for cross-contamination of samples.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

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Sample bags were compiled in order and placed into a single container accompanied with a Chain of Custody form outlining the project information, date, building location, number of samples, and sample description. Samples were submitted to the analytical laboratory in a sealed container via courier.

2.2 LEAD

Lead may be used in its pure metallic form or combined chemically with other elements to form lead compounds. Metallic lead is used to make products such as electric storage batteries, ammunition, lead solder, radiation shields, pipes, and sheaths for electric cables. Metallic lead is sometimes combined with other metals such as copper, tin, and antimony as lead alloys for use in the manufacture of a variety of metal products. Lead is commonly found in buildings in the solder used on copper domestic pipes, in the caulking on bell fittings of cast iron drainage pipes and in electrical equipment.

The presence of lead-containing materials (other than paint) was assessed through visual means.

With respect to potential lead exposures associated with disturbance to surfaces coated with lead-containing products, various occupational health and safety administrations have indicated that working with materials coated with paint that has a lead content that exceeds 600 ppm can lead to exposures in excess of 50% of the occupational exposure limit (OEL) for lead, when the OEL is 0.05 mg/m³ (the OEL for lead in the Yukon, according to the current version of the YT OHS Reg., is 0.15 mg/m³).

Prior to disposal, Yukon Environment recommends that analytical results for building materials should be compared to the territorial soil guideline value of 1,000 ppm as found in the Contaminated Sites Regulations. As such, and given that the OEL for lead in the Yukon is 3 times that of jurisdictions that reference 600 ppm as lead-containing, Stantec will reference the 1,000 ppm value in defining paints as "lead-containing" as the most applicable criteria.

Based on this criterion, samples of suspected LCPs were collected from major paint applications, and were collected to substrate, where possible, in sufficient quantity to conduct analyses for total lead content. Samples collected were placed into separate, sealed, and labeled polyethylene bags, and submitted to EMSL for analyses of total lead content using Flame Atomic Absorption Spectrometry AAS (SW 846 3050B*/7000B).

EMSL's analytical laboratory is also accredited by the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Approval Program.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

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2.3 POLYCHLORINATED BIPHENYLS

PCBs were used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment. In fluorescent fixtures, PCBs were usually found within the small capacitors inside the ballast that controls the lamp. The Federal Chlorobiphenyls Regulation, SOR/91-152, prohibited the use of PCBs in electrical equipment manufactured after July 1, 1980.

The presence of PCB-containing equipment was assessed through visual means. With respect to fluorescent lamp ballasts, due to the risk of electrical shock associated with dismantling operating fixtures, fluorescent lamp ballasts were not removed to view identification numbers/information.

The total number of fluorescent lamp fixtures with ballasts that may contain PCBs within the subject buildings was approximated.

Suspected PCB-containing electrical equipment can be visually inspected and compared to the Environment Canada reference guide entitled "*Identification of Lamp Ballasts Containing PCBs, Report EPS 2/CC/2*", dated August 1991 (PCB Guide).

2.4 MERCURY

Mercury is commonly found in buildings as mercury vapour lighting, thermostats/thermometers with mercury-containing glass ampoules, electrical switches and can also be found in minor amounts in fluorescent lamp tubes and vapour bulbs and may be present in stable forms in adhesives. Exposure to mercury in workplaces is governed by the WCB.

The presence of mercury and mercury-containing equipment was assessed through visual means.

2.5 MOULD

Moist building materials may provide suitable conditions for mould growth, and the removal of building materials impacted by mould growth may require workers with specific training and experience using work procedures that have been developed to protect workers and work areas from exposure to elevated concentrations of airborne mould.

The presence of suspect visible mould was assessed through visual means and limited sampling. Material observed with dark-colored staining and/or a textured and discolored appearance is described as "suspect mould". Mould identified visually is defined as "suspect mould" unless it is confirmed as mould by laboratory analysis.

Two bulk samples were collected from building materials exhibiting visual evidence of suspect mould growth in one of the residences scheduled for demolition. The bulk samples collected were placed into a separate, labeled plastic bag that was sealed and submitted to Sporometrics Inc. (Sporometrics) of Toronto, ON for analysis of the mould forms present.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

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Sporometrics is accredited through the American Industrial Hygiene Association's Environmental Microbiology Proficiency Analytical Testing (EMPAT) program.

2.5.1 Mould Reference Guidelines

With respect to mould and/or moisture, the visual assessment and bulk sampling procedures utilized during this project were based on the recommendations provided in the documents listed below:

- Standard Construction Document CCA 82 " *Mould Guidelines for the Canadian Construction Industry* ", Canadian Construction Association, 2004 (referred to as "CCA 82").
- " *Guidelines on Assessment and Remediation of Fungi in Indoor Environment* ", New York City Department of Health, Bureau of Environmental and Occupational Disease Epidemiology, April 2000 (referred to as the "NYC Guidelines").
- " *Fungal Contamination in Public Buildings: Health Effects and Investigation Methods* ", Federal-Provincial Committee on Environmental and Occupational Health, 2004 (referred to as the "Health Canada Guide").
- " *Indoor Air Quality in Office Buildings: A Technical Guide* ", Report of the Federal-Provincial Advisory Committee on Environmental and Occupational Health, 1995. (referred to as the "IAQ Guide").
- " *Bioaerosols: Assessment and Control* ", American Conference of Governmental Industrial Hygienists (ACGIH), 1999 (referred to as the ACGIH Report).

2.6 OZONE-DEPLETING SUBSTANCES

Chlorofluorocarbons (CFCs) and other ODSs are often found in refrigeration units associated with air-conditioning or other refrigeration equipment. In September 1987, forty-seven countries agreed to the Montreal Protocol on Substances that Deplete the Ozone Layer. Disposal of ODSs are regulated in the Yukon by the Yukon Government's ' *Special Waste Regulations* ' (2010) and the *Federal Halocarbon Regulations*, 2003 (FHR 2003).

The presence of ODSs and equipment containing these materials was assessed through visual means.

2.7 SILICA

Silica, also referred to as free crystalline silica, is found in concrete, cement, mortar, ceramic wall and floor tiles, stucco finishes and acoustic ceiling tiles. Prolonged exposure to, and inhalation of free crystalline silica, may result in respiratory disease known as silicosis, which is characterized by progressive fibrosis of the inner lung tissue and marked shortness of breath or impaired lung function.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

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Exposure to silica dust is governed by the WCB, with applicable exposure limits indicated in the current version of the YT OHS Reg., depending on the type of silica to be considered (quartz, cristobalite or tridymite).

The presence of silica was assessed through visual means.

3.0 ASSESSMENT LIMITATIONS

This report reflects the observations made within accessed areas of the subject buildings and the results of analyses performed on specific materials sampled during the assessment. Analytical results reflect the sampled materials at the specific sample locations.

Sampling was conducted pertaining to suspected ACMs and suspected LCPs only. The assessment for the presence of other hazardous building materials was visual in nature, and was conducted pertaining to readily visible surfaces within accessible spaces only. Concealed spaces were inspected via existing access panels, where present. Interior and exterior finishes, solid ceilings, walls, flooring and structural elements were not removed to access concealed areas. Inspection ports were made in various places where the presence of hazardous building materials was suspected behind solid finishes.

Due to limitations on the agreed to scope of work for this project as well as physical limitations in accessing concealed areas as well as limitations associated with working in occupied/operational spaces, there are specific limitations to the information that can be provided to each hazardous building material considered in this assessment, as outlined in the following sub-sections.

3.1 ASBESTOS

Suspected ACMs that were not sampled included, but were not limited to, the following (where present, based on building construction or as otherwise noted):

- Roofing materials covered in snow or unsafe to access
- Sub-grade materials
- Interior components of mechanical equipment (e.g., inner linings or gaskets in boilers)
- Interior components of heating, ventilation and air conditioning (HVAC) units
- Heat protection materials inside mechanical installations (e.g., gaskets) and light fixtures (e.g., paper backing in sealed incandescent fixtures)
- Flooring material concealed beneath ceramic tile, brickwork, hardwood flooring, and/or concealed beneath existing sub-floors
- Drywall and/or wall plaster and associated finish materials concealed behind new and/or additional walls or ceilings
- Woven tape inside duct connection joints or inner ducting insulation
- Materials within wall cavities, hard ceiling cavities or crawlspaces
- Insulation materials inside fire doors

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If encountered during renovation, demolition or other activities, any suspected ACMs not identified within this report should be presumed to contain asbestos and handled as such until otherwise proven, through analytical testing.

3.2 LEAD

Assessment for the presence of lead or lead-containing materials was visual in nature, and was conducted pertaining to readily visible surfaces within accessible spaces of the subject buildings only. The presence of lead or lead-containing materials in inaccessible areas not assessed included, but was not limited to: ceiling spaces, wall cavities, crawlspaces, and buried materials.

With respect to paint, samples of suspected LCPs were collected within the subject buildings only from surfaces of major paint applications where visually different paint colours and/or types were identified. Although the surfaces where samples were collected may be covered with more than one coat of paint, the paint samples are described by the surface (visible) colour only.

Attempts were made to represent all layers of paint in the samples collected. As analytical results are referenced to the surface paint colour only, the lead content of all painted surfaces similar to that represented by the surface paint colour will be presumed to be the same, regardless of differing sub surface paints, if any.

3.3 POLYCHLORINATED BIPHENYLS

Due to height restrictions and the risk of electrical shock in handling operational light fixtures, the ballasts present in the fixtures observed within the subject buildings were not removed for comparison to the PCB Guide.

Conclusions and recommendations regarding the presence of PCBs within the subject buildings are based on Stantec's limited observations in combination with information provided by staff or occupants regarding lighting renovations (where requested by Stantec based on observations) and is presented to provide guidance regarding the likelihood that PCB-containing equipment is or is not present within the subject buildings. The exact extent and/or number of fluorescent lamp ballasts containing PCBs, if any, within the subject buildings will not be commented on.

3.4 MERCURY

Visual assessment for the presence of mercury-containing equipment within the subject buildings was conducted in accessible areas only. The presence of mercury or mercury-containing equipment in inaccessible areas includes, but is not limited to: ceiling spaces, wall cavities, and crawlspaces, or as internal parts of HVAC mechanisms.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Findings
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3.5 MOULD

Visual assessment for the presence of suspected visible mould and/or suitable conditions for mould growth (e.g., moist and/or water-stained building materials) were conducted in accessed portions of the subject buildings only. The assessment was not intrusive in nature and included visual assessment of exposed surfaces and closer inspection of known problem areas.

The conclusions made in this report provide description(s) of the potential source(s) of moisture within the subject buildings that may have led to suitable conditions for mould growth, only in those cases where potential source(s) of moisture were identified. These conclusions will not necessarily identify all sources of moisture leading to suitable conditions for mould growth within the subject buildings or within the impacted area(s).

This assessment does not constitute a building envelope/building systems assessment for any of the subject buildings, which would include an intrusive investigation to assess the internal condition, potential moisture sources, and expected remaining service life of the various components and systems comprising the envelope of a building.

3.6 OZONE DEPLETING SUBSTANCES

Visual assessment for the presence of ODSs within the subject buildings was conducted in accessible areas only. The presence of ODS-containing equipment in inaccessible areas including, but not limited to, ceiling spaces, wall cavities and crawlspaces, was not assessed. In addition, portable equipment that may contain ODSs (refrigerators, drink coolers, etc.) was not considered as part of this assessment.

3.7 SILICA

Visual assessment for the presence of silica-containing materials within the subject buildings was conducted in accessible areas only. The presence of potential silica-containing materials in inaccessible areas including, but not limited to, ceiling spaces, wall cavities and crawlspaces was not assessed.

4.0 FINDINGS

The results of our assessment are provided on a building-by-building basis in **Appendices B through G**. Each Appendix contains the following (where applicable):

- Separate sections with written summaries of findings pertaining to each hazardous building material, including the following:
 - Information regarding the building, including the reported intent for that particular building (e.g., demolition, renovation or continued operation and maintenance)
 - A listing of suspect materials observed

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

General Recommendations

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- Tables including a summaries of the sample types, locations, and analytical results
- Interpretations of observations and/or sample analytical results.
- Photographs of identified hazardous building materials
- Information pertaining to condition evaluation of identified hazardous building materials
- Building-specific recommendations pertaining to identified hazardous building materials based on the reported intent for that particular building (e.g., demolition, renovation or continued operation and maintenance)
- Floor plan drawings for the subject building, which include locations of the samples collected during this assessment, and locations of identified hazardous building materials (where practical)
- Copies of the Certificates of Analysis for samples analyzed

It should be noted that evaluation of condition of identified ACMs was conducted using terminology and classifications as outlined in the former (repealed) *Public Works and Government Services Canada Asbestos Management Directive* (DP 057, 1997-12-03), and considered the friability of the material (terminology relating to how easily fibres can be released), condition (good, fair and poor) and accessibility of the material.

5.0 GENERAL RECOMMENDATIONS

Building-specific recommendations pertaining to the identified hazardous building materials that require action are provided in **Appendices B through G**. General recommendations pertaining to management of identified hazardous building materials in for continued operations, are provided below.

Please note: Additional testing and/or destructive assessment are likely to be required prior to renovation or demolition work. As part of the planning process, the scope for any renovations (or other work that will disturb building materials and/or finishes) should be reviewed in comparison to the information provided in this report. This review should be conducted by an individual with appropriate asbestos/hazardous building materials management expertise to determine whether additional testing is required, on a project-specific basis.

5.1 ASBESTOS

For continued operations the following should be considered pertaining to identified ACMs:

- An asbestos exposure control plan (also known as an “asbestos management plan” (AMP) or “asbestos operations and management plan”) should be developed and implemented buildings where ACMs are identified or remain. The AMP would serve to compile the available data, results and reports regarding the presence, extent, handling, removal, and disposal of ACMs within the subject building. The AMP would also provide sections for information regarding future sampling and analysis of suspected ACMs, if required, asbestos-abatement projects, if undertaken, and other information regarding the management of asbestos within the subject building.



HAZARDOUS BUILDING MATERIALS ASSESSMENTS

General Recommendations

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- Identified ACMs that remain in the building and are in good condition can be managed in place, upon development and implementation of an AMP.
- Identified ACMs that may be impacted during renovations activities should be removed prior to the onset of those activities, in accordance with the requirements of the Canada Labour Code, the WCB and the current version of the YT OHS Reg. It is expected that this will require the involvement of a qualified, licensed asbestos abatement contractor.
- Should a material suspected to contain asbestos fibres become uncovered during renovation or other activities, all work in the areas that may disturb the material should be stopped. Samples of the suspect material should be submitted for laboratory analysis to determine if asbestos fibres are present. Confirmed asbestos materials should be handled in accordance with applicable guidelines and regulations.
- Suspected ACMs deemed visually similar to the ACMs identified in this report should be considered asbestos-containing and handled as such, unless proven otherwise, through analytical testing.
- Ensure asbestos containing waste is handled, stored, and disposed of in accordance with the requirements of the *Federal Transportation of Dangerous Goods Regulation*, the "*Asbestos Abatement Code of Practice*" (May 2012) and Yukon Environment Special Waste & Solid Waste Regulations document entitled "*Asbestos Disposal*" (2010).
- Asbestos-containing cement pipe may be present below ground – caution should be used if excavation is required.

This report should be added to the AMP and referred to as the current ACM record.

5.2 LEAD

Lead-containing materials and LCPs in good condition do not pose significant hazards to workers for continued operations and maintenance. These materials can be managed in place.

If LCPs or other lead-containing materials are to be disturbed and/or removed during renovation or other activities, ensure compliance with the following:

- The occupational exposure control requirements of the Canada Labour Code and the WCB
- The disposal requirements of *Yukon Environment – Contaminated Sites Regulations* and the *Yukon Government Special Waste Regulations*
- The transportation requirements of the *Federal Transportation of Dangerous Goods Regulation*

Corrective action or remedial work on paint applications containing any concentration of lead should be undertaken in a manner so as to avoid generating fine particulate matter or dust (i.e., avoid sanding). Airborne lead dust or fumes should not exceed the WCB 8-hour Occupational Exposure Limit (OEL) of 0.15 milligram per cubic metre (mg/m³) during the removal of paints and products containing any concentration of lead. This can be achieved by:

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

General Recommendations

April 9, 2015

- Providing workers with protective clothing and PPE or devices as necessary to protect the worker against the hazards to which the worker may be exposed
- Providing workers with adequate and training in the care and use of clothing, equipment or device before wearing or using it
- Wetting the surface of the materials to prevent dust emissions
- Providing workers with washing facilities with clean water, soap and individual towels to properly wash prior to exiting the work area

5.3 POLYCHLORINATED BIPHENYLS

For continued operations and maintenance, fluorescent lamp ballasts that may contain PCBs can be managed in place, where these items are operating and in good condition. No further action is currently required until 2025, when PCB-containing items will require removal and disposal.

As fluorescent lamp ballasts may contain PCBs, if these items are removed from service, they should be assessed in reference to the PCB Guide.

If PCB-containing items are identified and require removal, they should be handled, transported, stored and disposed of according to the *Federal Transportation of Dangerous Goods Regulation* and the *PCB Regulations* (SOR/2008-273).

5.4 MERCURY

For continued operations and maintenance, identified mercury-containing materials can be managed in place. Mercury vapour within light fixtures and/or liquid mercury in thermostat switches or thermometers pose no risk to workers or occupants provided the mercury containers remain intact and undisturbed. No further action is currently required.

For either renovation or demolition, if mercury-containing materials (e.g., thermostats, fluorescent light bulbs, HID lighting) are to be removed from service, ensure all mercury waste is handled, stored and disposed of in accordance with the requirements of the requirements of the Yukon Government *Special Waste Regulations* and the *Transportation of Dangerous Goods Regulation*.

5.5 MOULD

While there are few definitive guidelines on the interpretation of laboratory results for mould analysis, documents published by Health Canada, Ontario Ministry of Health, American Industrial Hygiene Association (AIHA), American Conference of Governmental Industrial Hygienists (ACGIH) and others, provide guidance for interpreting the results of mould investigations. The *Health Canada Guide* states that:

"Identifiable promoters of fungal growth require correction, and any visible fungi require removal"

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

General Recommendations

April 9, 2015

In general, mould-impacted building materials should be removed and/or cleaned. Porous materials such as fabrics, paper-faced gypsum boards and such should be removed, while semi-porous (e.g. wood framing, wood sheathing) or non-porous (e.g. metal, glass) materials can typically be cleaned. Such removal and/or cleaning should be conducted by appropriately trained personnel (likely specialized contractors, depending on the scope/extent of removal required) and in accordance with accepted guidelines and procedures for such work (e.g. those indicated in CCA 82).

Where moisture-impacted building materials are present with no suspect mould currently observed, such materials can be monitored to determine whether the moisture staining is current or historical. If current, measures should be taken to correct the source of moisture, and the moist materials should likely be removed (or cleaned, where cleaning is possible, per above).

As the most controllable promoter of fungal growth is moisture, buildings that are to continue to be operated and maintained should be managed to minimize moisture ingress or moisture impacts to building materials that are not intended to be wetted.

If significant mould contamination is identified in concealed locations or is encountered due to unwanted moisture-intrusion events (e.g. floods, leaks), an experienced mould abatement contractor and a health and safety professional (e.g. consultant) may be required to assist with removal in accordance with applicable guidelines and standards for such work.

5.6 OZONE DEPLETING SUBSTANCES

Suspect ODS-containing equipment can be managed in place and must be serviced by licensed refrigeration technicians (as defined in the FHR 2003).

When refrigeration equipment that is suspect or confirmed ODS-containing is decommissioned, it should be emptied and inspected by licensed refrigeration technician (as defined in the FHR 2003).

If ODS-containing equipment in buildings to be removed for disposal, ODSs must be handled, recycled, stored, and/or disposed of in accordance with the requirements of with the requirements of the *Yukon's Ozone Depleting Substances (ODS) Regulations* and the FHR 2003.

5.7 SILICA

For continued operations and maintenance, identified silica-containing materials can be managed in place.

For renovation or demolition activities, if silica-containing materials are to be disturbed, ensure dust control measures are employed such that airborne silica dust concentrations do not exceed the applicable exposure limits indicated in the current version of the YT OHS Reg. This would include, but not be limited to, the following:



HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Closure

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- Providing workers with respiratory protection
- Wetting the surface of the materials to prevent dust emissions
- Providing workers with facilities to properly wash prior to exiting the work area
- Providing dust control to mitigate the potential for demolition dust to escape from the work area into public and/or adjacent areas

6.0 CLOSURE

This report has been prepared by Stantec Consulting Ltd. for the sole benefit of Public Works and Government Services Canada and the Royal Canadian Mounted Police. Any use that a third party makes of this report, or any reliance on decisions to be made based on it, is the responsibility of such third parties. Stantec Consulting Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The conclusions presented represent the best judgment of the assessor based on current environmental, health and safety standards and the site conditions observed on the dates cited within this report. This report is based on, and limited by, circumstances and conditions stated herein, and on information available at the time of preparation of the report. Due to the limited nature of the investigation and the limited data available, Stantec Consulting Ltd. cannot warrant against undiscovered environmental, health and/or safety liabilities. It is possible that additional, concealed hazardous materials may become evident during renovation and/or demolition activities within the subject buildings.

If any conditions become apparent that differ significantly from our understanding of conditions as presented in this report, we request that we be notified immediately to reassess the conclusions provided herein.

We trust that the report meets your current requirements. Should you have any questions or concerns regarding the above, please do not hesitate to contact the undersigned.

Respectfully submitted,

STANTEC CONSULTING LTD.



Kim Wiese Dipl. Tech.
Environmental Technologist

Reviewed by:



Sean Brigden, B.Sc., P.B.Dipl., CRSP
Project Manager

KW/SB/tt



**APPENDIX A
BUILDING LIST**

Appendix	Building Name	Building Number	Year of Construction	Building Area (square metres)
B	Residence	17	1994	171
C	Residence	23	1994	171
D	Old Detachment	823223	1957	300
E	Garage	823235	2001	84
F	Main Detachment	823236	1995	334
G	Residence	823256	1993	138

APPENDIX B
FINDINGS AND RECOMMENDATIONS
- BUILDING 17: RESIDENCE

B-4.0 FINDINGS – BUILDING 823238 (HOUSE #17) RESIDENCE

Building 823238 (House #17) Residence was reportedly constructed in 1994.

The results of the assessment for each of the considered hazardous materials within the Residence are provided in the following sub-sections.

Floor plan drawings for Building 823238 (House #17) Residence, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following area was not accessed, for the reason indicated:

- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

B-4.1 Asbestos

Given the reported construction date of Building (House #4) Residence (1992), limited ACMs were anticipated to be present. As a measure of diligence, and for confirmatory purposes, Stantec identified and sampled various materials that would be suspected ACMs if present in buildings of older vintage, including the following:

- Grey penetration putty
- Drywall joint compound
- White ceiling texture coat
- 6"x6" pattern cream sheet flooring
- Cream sheet flooring

Thirteen (13) samples of the above-noted suspected ACMs were collected and submitted to EMSL for analysis of asbestos content and nature.

A summary of the sample types, locations and analytical results is presented in Table B-4.1.1, below. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are attached at the end of this Appendix.

**Table B-4.1.1: Suspected ACM Sample Collection and Analysis Summary
Building 823238 (House #17) Residence, Teslin, YT**

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
17-PP-01A	Grey penetration putty	Penetrations around exterior	None detected
17-PP-01B	Grey penetration putty	Penetrations around exterior	None detected
17-PP-01C	Grey penetration putty	Penetrations around exterior	None detected
17-DJC-01A	Drywall joint compound	Main floor closet	None detected
17-DJC-01B	Drywall joint compound	Main floor front bedroom closet	None detected
17-DJC-01C	Drywall joint compound	Basement main room	None detected
17-DJC-01D	Drywall joint compound	Basement front room	None detected
17-DJC-01E	Drywall joint compound	Basement front room	None detected
17-CTC-01A	White ceiling texture coat	Main floor front bedroom	None detected
17-CTC-01B	White ceiling texture coat	Main floor bedroom by front door	None detected
17-CTC-01C	White ceiling texture coat	Main floor living room	None detected
17-SF-01	6" x 6" pattern cream sheet flooring	Ensuite bathroom	None detected
17-SF-02	Crème sheet flooring	Basement front room	None detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of suspected ACM sample analytical results, no ACMs were identified.

B-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes

With respect to paint, three (3) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table B-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table B-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823238 (House #17) Residence, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
17-LP-01	Basement interior walls	Green	<90	No
17-LP-02	Throughout interior walls	Cream	<210	No
17-LP-03	Exterior on steps	Grey	<140	No

Based on our observations and on our interpretations of suspected LCP sample analytical results, no LCPs were identified.

B-4.3 Polychlorinated Biphenyls

Based on the construction date of the building (1992), PCBs are not anticipated to be present.

B-4.4 Mercury

Suspected mercury-containing equipment was not observed.

B-4.5 Mould

Suspect mould or moisture-impacted building materials were not observed at the time of the assessment.

B-4.6 Ozone-Depleting Substances

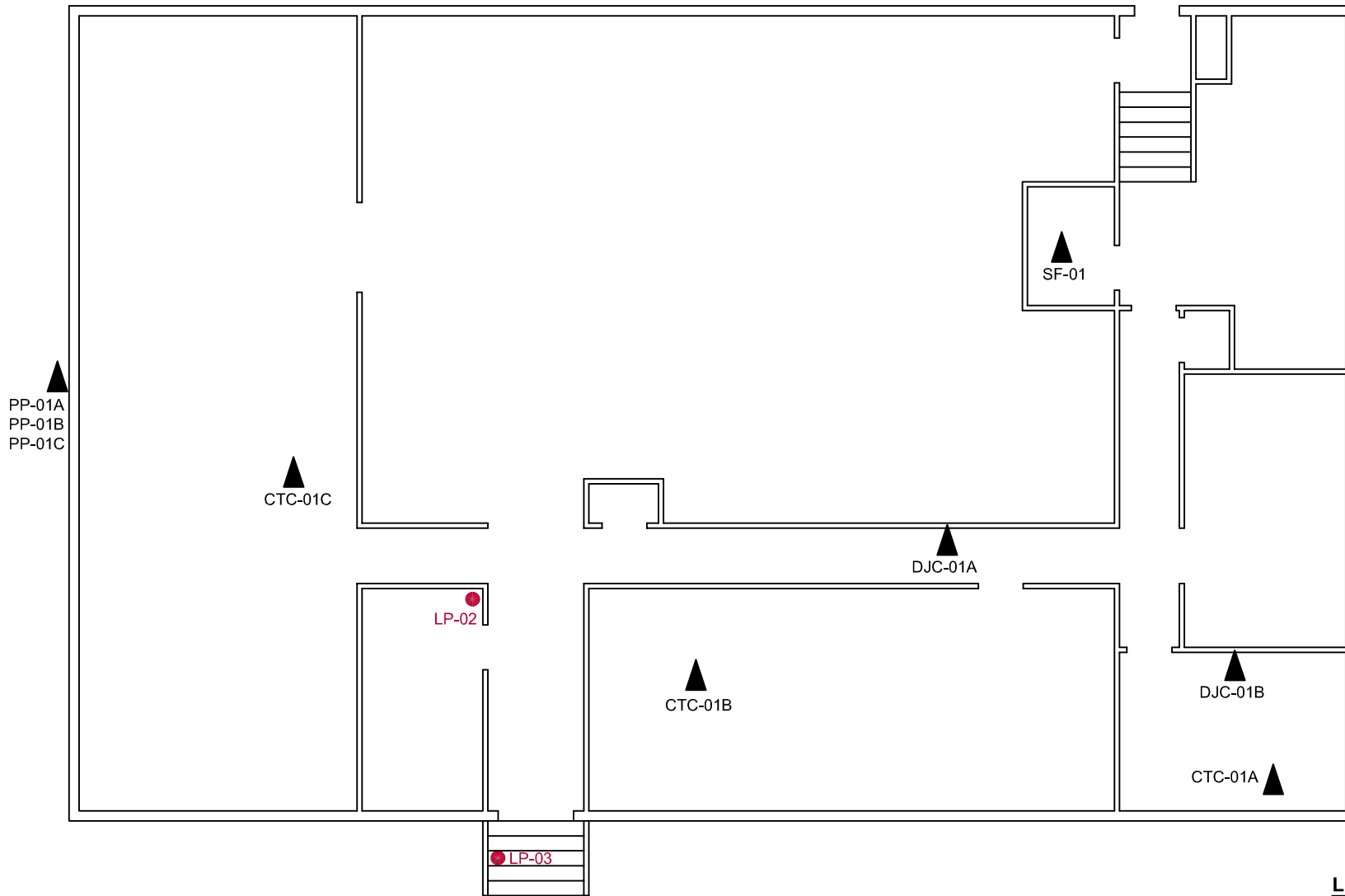
Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

B-4.7 Silica

Silica may be present in concrete in the foundation/floors.

B-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

Identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.



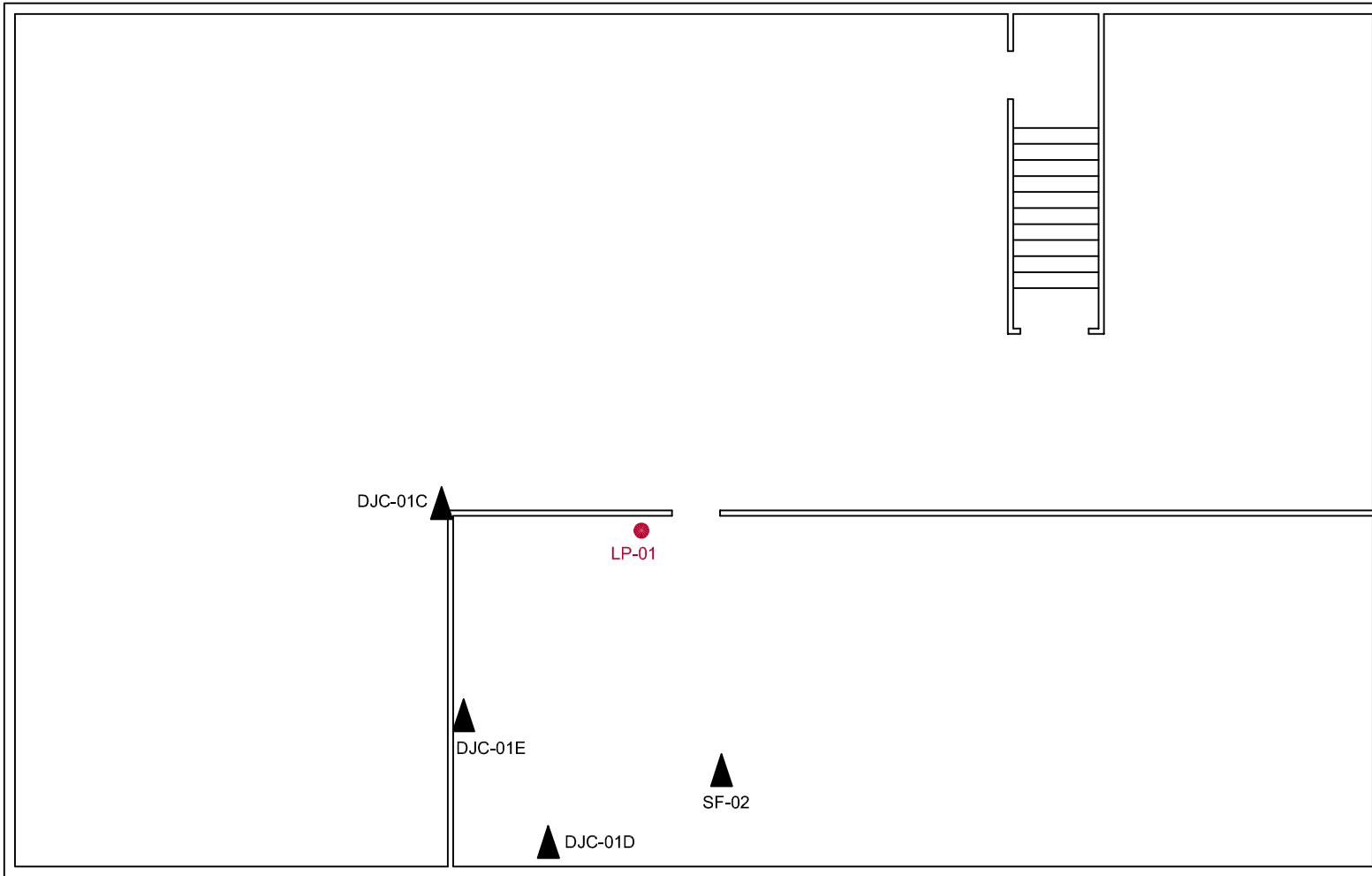
**BUILDING 823238 (HOUSE #17): RESIDENCE
MAIN FLOOR**

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p>B-1</p>	
	Scale: N.T.S.		
	Date: 15/03/19		
	Dwn. By: CD _{VM} SL2015030193		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	App'd By: TW		



**BUILDING 823238 (HOUSE #17): RESIDENCE
BASEMENT**

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250,400	<p>Dwg.:</p> <p>B-2</p>
	Scale: N.T.S.	
	Date: 15/04/01	
	Dwn. By: CD _{VM/DM} ^{SL2015040016}	
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	App'd By: TW	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Attn: Kim Wiese
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6
Phone: (604) 412-3004
Fax:
Collected:
Received: 3/11/2015
Analyzed: 3/16/2015
Proj: 123220250-400.100

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 17-PP-01A **Lab Sample ID:** 551502378-0001

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 17-PP-01B **Lab Sample ID:** 551502378-0002

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 17-PP-01C **Lab Sample ID:** 551502378-0003

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 17--DJC-01A **Lab Sample ID:** 551502378-0004

Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR CLOSET

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17--DJC-01B **Lab Sample ID:** 551502378-0005

Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR FRONT BEDROOM/CLOSET

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17--DJC-01C **Lab Sample ID:** 551502378-0006

Sample Description: DRYWALL JOINT COMPOUND BASEMENT MAIN ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17--DJC-01D **Lab Sample ID:** 551502378-0007

Sample Description: DRYWALL JOINT COMPOUND BASEMENT FRONT ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 17--DJC-01E **Lab Sample ID:** 551502378-0008
Sample Description: DRYWALL JOINT COMPOUND BASEMENT FRONT ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17-CTC-01A **Lab Sample ID:** 551502378-0009
Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR FRONT/BEDROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17-CTC-01B **Lab Sample ID:** 551502378-0010
Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR BEDROOM BY/FRONT DOOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17-CTC-01C **Lab Sample ID:** 551502378-0011
Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR LIVING ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17-SF-01 **Lab Sample ID:** 551502378-0012
Sample Description: 6X6" CRÈME FLOOR TILE ENSUITE BATHROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Beige	0.0%	100%	None Detected	

Client Sample ID: 17-SF-02 **Lab Sample ID:** 551502378-0013
Sample Description: CRÈME SHEET FLOORING BASEMENT FRONT ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Beige	0.0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Analyst(s):

Arabee Sathiaseelan PLM (3)
PLM Grav. Reduction (4)
John Biesiadecki PLM (5)
Nicole Dimou PLM Grav. Reduction (1)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 03/16/2015 18:15:24

**EMSL Canada Inc.**

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EMSL Canada Or	551502408
CustomerID:	55JACQ30L
CustomerPO:	123220250-400
ProjectID:	

Attn: **Kim Wiese**
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6

Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
17-LP-01 Site: BASEMENT INTERIOR Desc: GREEN	551502408-0001	3/16/2015		<90 ppm
17-LP-02 Site: THROUGHOUT Desc: CRÉME	551502408-0002	3/16/2015		<210 ppm
17-LP-03 Site: EXTERIOR ON STEPS Desc: GREY	551502408-0003	3/16/2015		<140 ppm

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

APPENDIX C
FINDINGS AND RECOMMENDATIONS
- BUILDING 23: RESIDENCE

C-4.0 FINDINGS – BUILDING 823237 (HOUSE # 23) RESIDENCE

Building 823237 (House # 23) Residence was reportedly constructed in 1994.

The results of the assessment for each of the considered hazardous materials within the Residence are provided in the following sub-sections.

Floor plan drawings for Building 823237 (House # 23) Residence, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following area was not accessed, for the reason indicated:

- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

C-4.1 Asbestos

Given the reported construction date of Building 823237 (House # 23) Residence (1994), limited ACMs were anticipated to be present. As a measure of diligence, and for confirmatory purposes, Stantec identified and sampled various materials that would be suspected ACMs if present in buildings of older vintage, including the following:

- Grey penetration putty
- Drywall joint compound
- White ceiling texture coat
- 6"x6" pattern crème sheet flooring

Twelve (12) samples of the above-noted suspected ACMs were collected and submitted to EMSL for analysis of asbestos content and nature.

A summary of the sample types, locations and analytical results is presented in Table C-4.1.1, below. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are attached at the end of this Appendix.

**Table C-4.1.1: Suspected ACM Sample Collection and Analysis Summary
Building 823237 (House # 23) Residence, Teslin, YT**

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
23-PP-01A	Grey penetration putty	Penetrations around exterior	None detected
23-PP-01B	Grey penetration putty	Penetrations around exterior	None detected
23-PP-01C	Grey penetration putty	Penetrations around exterior	None detected
23-DJC-01A	Drywall joint compound	Basement by stairs	None detected
23-DJC-01B	Drywall joint compound	Basement under stairs	None detected
23-DJC-01C	Drywall joint compound	Basement by stair landing	None detected
23-DJC-01D	Drywall joint compound	Main floor bathroom	None detected
23-DJC-01E	Drywall joint compound	Main floor closet	None detected
23-CTC-01A	White ceiling texture coat	Main floor front foyer	None detected
23-CTC-01B	White ceiling texture coat	Main floor kitchen	None detected
23-CTC-01C	White ceiling texture coat	Main floor hallway	None detected
23-SF-01	6"x6" pattern crème sheet flooring	Basement landing	None detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of suspected ACM sample analytical results, no ACMs were identified.

C-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes

With respect to paint, three (3) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table C-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table C-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823237 (House # 23) Residence, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
23-LP-01	Throughout interior walls	Cream	<90	No
23-LP-02	Basement floor	Grey	<97	No
23-LP-03	Exterior deck and stairs	White	<130	No

Based on our observations and on our interpretations of suspected LCP sample analytical results, no LCPs were identified

C-4.3 Polychlorinated Biphenyls

Based on the construction date of the building (1992), PCBs are not anticipated to be present.

C-4.4 Mercury

Suspected mercury-containing equipment was not observed.

C-4.5 Mould

Suspect mould or moisture-impacted building materials were not observed at the time of the assessment.

C-4.6 Ozone-Depleting Substances

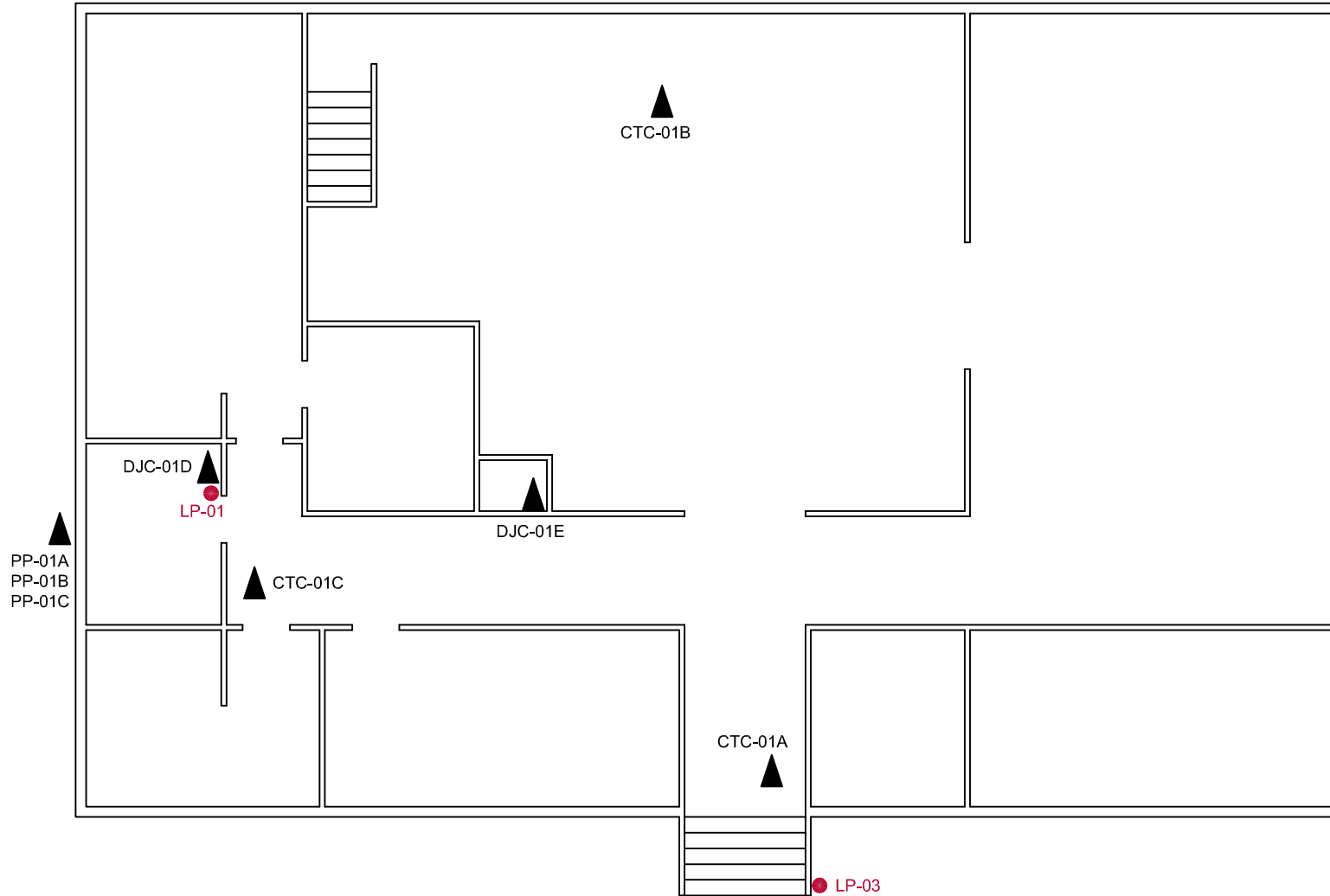
Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

C-4.7 Silica

Silica may be present in concrete in the foundation/floors.

C-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

Identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.



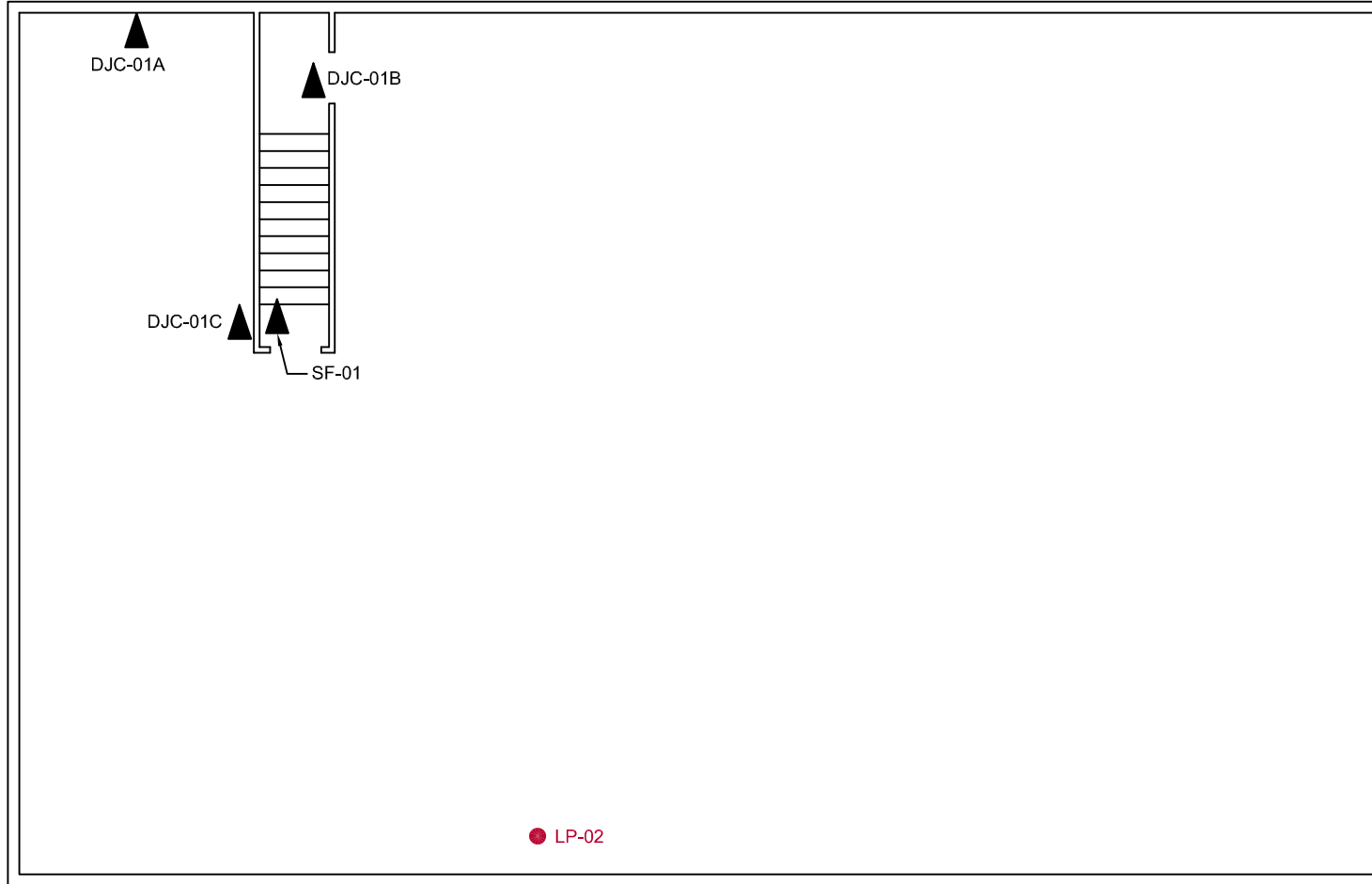
**BUILDING 823237 (HOUSE #23): RESIDENCE
MAIN FLOOR**

LEGEND

- ▲ BULK SAMPLE
- PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	<p>Project No.: 123220250.400</p>	<p>Dwg.:</p> <p style="font-size: 2em; font-weight: bold;">C-1</p>		
	<p>Scale: N.T.S.</p>			
<p>Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA</p>	<p>Date: 15/03/19</p>			
	<p>Dwn. By: CD_{VM}SL2015030195</p>			
		<p>App'd By: TW</p>		



BUILDING 823237 (HOUSE #23): RESIDENCE BASEMENT

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p style="font-size: 2em;">C-2</p>
	Scale: N.T.S.	
	Date: 15/03/19	
	Dwn. By: CD _{VM} SL2015030196	
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	App'd By: TW	



EMSL Canada Inc.

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<http://www.EMSL.com> / torontolab@emsl.com

EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Attn: Kim Wiese
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6
Proj: 123220250-400.100
Phone: (604) 412-3004
Fax:
Collected:
Received: 3/11/2015
Analyzed: 3/16/2015

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 23-PP-01A **Lab Sample ID:** 551502378-0014

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 23-PP-01B **Lab Sample ID:** 551502378-0015

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Gray	0%	100%	None Detected	

Client Sample ID: 23-PP-01C **Lab Sample ID:** 551502378-0016

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Gray	0%	100%	None Detected	

Client Sample ID: 23-DJC-01A **Lab Sample ID:** 551502378-0017

Sample Description: DRYWALL JOINT COMPOUND BASEMENT BY STAIRS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-DJC-01B **Lab Sample ID:** 551502378-0018

Sample Description: DRYWALL JOINT COMPOUND BASEMENT UNDER STAIRS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-DJC-01C **Lab Sample ID:** 551502378-0019

Sample Description: DRYWALL JOINT COMPOUND BASEMENT BY STAIR LANDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-DJC-01D **Lab Sample ID:** 551502378-0020

Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR BATHROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 23-DJC-01E **Lab Sample ID:** 551502378-0021
Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR CLOSET

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-CTC-01A **Lab Sample ID:** 551502378-0022
Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR FRONT FOYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-CTC-01B **Lab Sample ID:** 551502378-0023
Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-CTC-01C **Lab Sample ID:** 551502378-0024
Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR HALLWAY

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-SF-01 **Lab Sample ID:** 551502378-0025
Sample Description: 6X6" CRÈME SHEET FLOORING BASEMENT LANDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/Beige	0.0%	100%	None Detected	

Analyst(s):

Arabee Sathiseelan PLM (5)
PLM Grav. Reduction (2)
John Biesiadecki PLM (5)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 03/16/2015 18:15:24

**EMSL Canada Inc.**

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EMSL Canada Or	551502408
CustomerID:	55JACQ30L
CustomerPO:	123220250-400
ProjectID:	

Attn: **Kim Wiese**
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6

Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
23-LP-01	551502408-0004 Site: THROUGHOUT Desc: CRÈME	3/16/2015		<90 ppm
23-LP-02	551502408-0005 Site: BASEMENT FLOOR Desc: GREY	3/16/2015		<97 ppm
23-LP-03	551502408-0006 Site: EXTERIOR ON DECK AND STAIRS Desc: WHITE	3/16/2015		<130 ppm

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

APPENDIX D
FINDINGS AND RECOMMENDATIONS
- BUILDING 823223: OLD DETACHMENT

D-4.0 FINDINGS – BUILDING 823223 OLD DETACHEMENT

Building 823223 Old Detachment was reportedly constructed in 1957.

The results of the assessment for each of the considered hazardous materials within the Old Detachment are provided in the following sub-sections.

Floor plan drawings for Building 823223 Old Detachment, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following areas were not accessed, for the reasons indicated:

- Garage on south side of building (Lock frozen, unable to open)
- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

D-4.1 Asbestos

Stantec identified and sampled various suspected ACMs, including the following:

- Various types of fiber board
- White ceiling texture coat
- Drywall joint compound
- Brown duct mastic
- White building paper
- White exterior penetration caulking
- White window caulking
- Roofing material
- Cement panel
- Various types and patterns of sheet flooring
- 12" x 12" brown wood-like floor tile (and associated mastic)

Forty-two (44) samples of the above-noted suspected ACMs were collected and submitted to EMSL for analysis of asbestos content and nature.

A summary of the sample types, locations and analytical results is presented in Table D-4.1.1, below. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are attached at the end of this Appendix.

It should be noted that bulk samples of roofing materials and vinyl floor tiles were further separated into layers during laboratory analysis.

Hazardous Building Materials Assessments

RCMP Detachment, Teslin, YT

Draft Report

Appendix D: Findings and Recommendations – Building 823223 Old Detachment

**Table D-4.1.1: Suspected ACM Sample Collection and Analysis Summary
Building 823223 Old Detachment, Teslin, YT**

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
823223-FB-01A	Cream fiber board	Attic	None Detected
823223-FB-01B	Cream fiber board	Attic	None Detected
823223-FB-01C	Cream fiber board	Attic	None Detected
823223-FB-02A	Brown fiber board	Attic	None Detected
823223-FB-02B	Brown fiber board	Attic	None Detected
823223-FB-02C	Brown fiber board	Attic	None Detected
823223-CTC-01A	White ceiling texture coat	Kitchen	None Detected
823223-CTC-01B	White ceiling texture coat	Kitchen	None Detected
823223-CTC-01C	White ceiling texture coat	Kitchen	None Detected
823223-CTC-02A	White ceiling texture coat	Main floor southeast room	None Detected
823223-CTC-02B	White ceiling texture coat	Main floor stairwell by garage entrance	None Detected
823223-CTC-02C	White ceiling texture coat	Main floor front foyer	None Detected
823223-CTC-02D	White ceiling texture coat	Main floor room north of front foyer	None Detected
823223-CTC-02E	White ceiling texture coat	Main floor stairwell to cells	None Detected
823223-DJC-01A	Drywall joint compound	Main floor front foyer	None Detected
823223-DJC-01B	Drywall joint compound	Main floor front foyer	None Detected
823223-DJC-01C	Drywall joint compound	West stairs to basement	None Detected
823223-DJC-01D	Drywall joint compound	Second floor southwest room	None Detected
823223-DJC-01E	Drywall joint compound	Second floor northwest room	None Detected
823223-DJC-01F	Drywall joint compound	Second floor southeast room	None Detected
823223-DJC-01G	Drywall joint compound	Second floor closet in southwest room	None Detected
823223-DM-01A	Brown duct mastic	Basement northeast room	0.90% Chrysotile
823223-DM-01B	Brown duct mastic	Basement northeast room	Stop Positive (Not Analyzed)
823223-DM-01C	Brown duct mastic	Basement northeast room	Stop Positive (Not Analyzed)
823223-BP-01A	White building paper	Attic	None Detected
823223-BP-01B	White building paper	Attic	None Detected
823223-BP-01C	White building paper	Attic	None Detected
823223-DSC-01A	White caulking	Exterior east side	None Detected

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
823223-DSC-01B	White caulking	Exterior east side	None Detected
823223-DSC-01C	White caulking	Exterior east side	None Detected
823223-WC-01A	White window caulking	Exterior windows	None Detected
823223-WC-01B	White window caulking	Exterior windows	None Detected
823223-WC-01C	White window caulking	Exterior windows	None Detected
823223-RM-01A - Shingle	Roofing material – roof shingle	Roof	None Detected
823223-RM-01A – Tar Paper	Roofing material – tar paper underlay	Roof	None Detected
823223-RM-01B - Shingle	Roofing material – roof shingle	Roof	None Detected
823223-RM-01B – Tar Paper	Roofing material – tar paper underlay	Roof	None Detected
823223-RM-01C - Shingle	Roofing material – roof shingle	Roof	None Detected
823223-RM-01C – Tar Paper	Roofing material – tar paper underlay	Roof	None Detected
823223-CP-01	Cement panel	Exterior siding under first layer of siding	12% Chrysotile
823223-SF-01	Tan sheet flooring with grey dots	Front foyer, central stairwell to basement and stairwell to cells	2.6% Chrysotile
823223-SF-02	Tan sheet flooring with brown and orange dots	Kitchen	None Detected
823223-SF-03	White and grey wood-like sheet flooring	Main floor bathroom floor and walls	None Detected
823223-SF-04	Orange and yellow sheet flooring	Second floor bathroom	21.1% Chrysotile
823223-SF-05	Grey and orange sheet flooring	Under orange and yellow sheet flooring in second floor bathroom	None Detected
823223-SF-06	Black sheet flooring with white smudges	Stairs to basement	None Detected
823223-FT-01	12" x12" brown wood-like floor tile	Main floor closet by stairs to second floor	None Detected
823223-FT-01 mastic	Mastic on 12" x12" brown wood-like floor tile	Main floor closet by stairs to second floor	None Detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of suspected ACM sample analytical results, the materials presented in Table D-4.1.2, below were identified as ACMs.



Hazardous Building Materials Assessments



RCMP Detachment, Teslin, YT

Draft Report

Appendix D: Findings and Recommendations – Building 823223 Old Detachment

**Table D-4.1.2: Summary of Identified ACMs
Building 823223 Old Detachment, Teslin, YT**

Identified ACM Description and Condition Information		Photo
Brown duct mastic throughout.		
Content	0.90% Chrysotile	
Friability	Non-friable	
Condition	Good	
Cement panel exterior siding under first layer of siding around the entire perimeter.		
Content	12% Chrysotile	
Friability	Non-friable	
Condition	Good	

Identified ACM Description and Condition Information		Photo
<p>Tan sheet flooring with grey dots in the front foyer, central stairwell to basement and stairwell to cells.</p>		
Content	2.6% Chrysotile	
Friability	Non-friable in situ, friable during removal	
Condition	Good	
<p>Orange and yellow sheet flooring in second floor bathroom.</p>		
Content	21.1% Chrysotile	
Friability	Non-friable in situ, friable during removal	
Condition	Good	

D-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes
- Electrical equipment (i.e. batteries for emergency lighting/signage).



With respect to paint, eleven (11) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table D-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table D-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823223 Old Detachment, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
823223-LP-01	Interior cement floor	Blue	8,900	Yes
823223-LP-02	Interior walls	White	440	No
823223-LP-03	Interior door trim	Blue	410	No
823223-LP-04	Cement floor in cells	Red	<90	No
823223-LP-05	Interior walls in cells	Cream	110	No
823223-LP-06	Cement floor	Grey	3,700	Yes
823223-LP-07	Basement walls	Yellow	590	No
823223-LP-08	Interior basement walls	Cream	2,500	Yes
823223-LP-09	Exterior deck – over red	Blue	1,500	Yes
823223-LP-10	Exterior siding	White	2,600	Yes
823223-LP-11	Exterior trim	Blue	3,000	Yes

Based on our observations and on our interpretations of suspected LCP sample analytical results, the materials presented in Table D-4.2.2, below were identified as LCPs.

**Table D-4.2.2: Summary of Identified LCPs
Building 823223 Old Detachment, Teslin, YT**

Identified LCP Description	Photo
<p>Blue paint on cement floor on main floor. This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	<p>No photo.</p>
<p>Grey paint on cement floor in interior basement. This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	
<p>Cream paint on interior basement walls. This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	


Hazardous Building Materials Assessments

RCMP Detachment, Teslin, YT

Draft Report

Appendix D: Findings and Recommendations – Building 823223 Old Detachment

Identified LCP Description	Photo
<p>Blue paint on exterior deck (over red primer). This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	
<p>White paint on exterior siding. This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	

Identified LCP Description	Photo
<p>Blue paint on exterior trim This paint was observed to be in good condition (not bubbling, flaking or peeling).</p>	

D-4.3 Polychlorinated Biphenyls

Equipment suspected to contain PCBs was not observed at the time of this assessment.


D-4.4 Mercury

One (1) suspected mercury-containing thermometer was observed on the main floor in the southwest room, as indicated on the attached floor plan drawings.

D-4.5 Mould

Mould/moisture damage was observed as summarized in Table D-4.5.1, below.

Table D-4.5.1: Summary of Identified Mould and/or Moisture-Impacted Materials Building 823223 Old Detachment, Teslin, YT

Identified Mould and/or Moisture Impacted Materials Description	Photo
<p>Moisture-impacted drywall was observed throughout the basement. The suspected source of moisture is condensation due to the building not being heated and/or insufficient ventilation/dehumidification.</p>	

D-4.6 Ozone-Depleting Substances

Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

D-4.7 Silica

Silica may be present in concrete observed in various locations throughout.

D-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

In general, identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.

Additional building-specific recommendations to be considered are provided below.

D-5.2 Lead

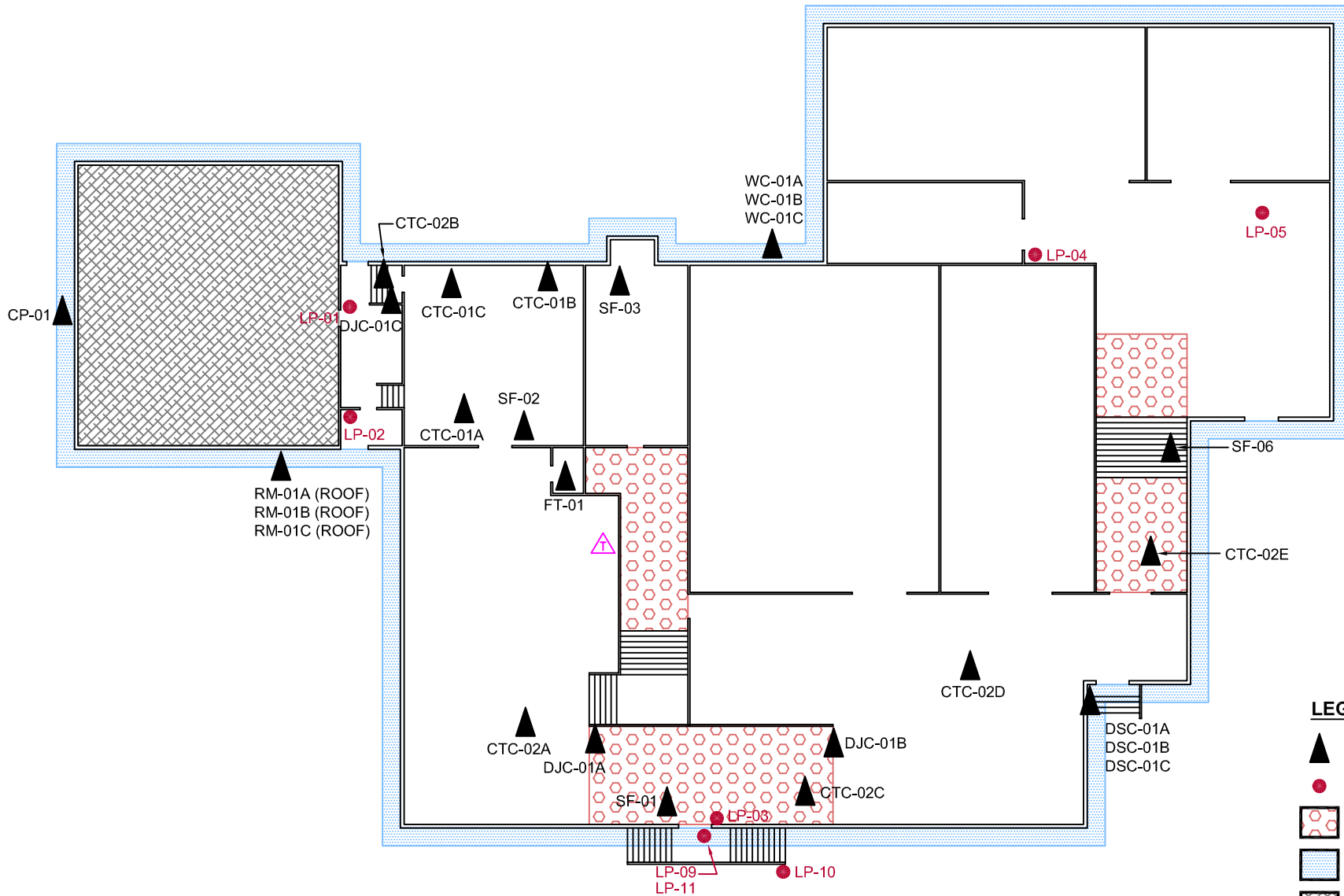
Lead-containing paint observed in poor condition throughout the basement and exterior should be cleaned-up and/or addressed to mitigate potential for additional deterioration and dispersal of lead-containing paint chips/dust. Consideration should be given to re-painting surfaces to mitigate the potential for additional deterioration and hazards associated with the lead-containing paint chips/dust that may be created. If re-painting is completed, appropriate precautions to protect workers and work areas from exposure to lead will be required during painting preparation activities.

Provisions for worker protection and waste disposal related to the above are included in Section 5.0 of the main body of this report.

D-5.5 Mould

Stantec recommends the following course of action within the subject building:

- Drywall materials within the basement that are impacted by moisture and suspect mould (the majority of, if not all drywall, approximately 500 square feet) should be removed accordance with applicable guidelines and accepted standards for such work (e.g., CCA 82). This will likely require the involvement of an experienced mould abatement contractor.
- The source of moisture is likely condensation due to the building not being heated and or insufficient ventilation/dehumidification. If these issues causing condensation are not planned to be addressed then mould and moisture impacted materials should not be replaced as the mould/moisture issues will likely reoccur.

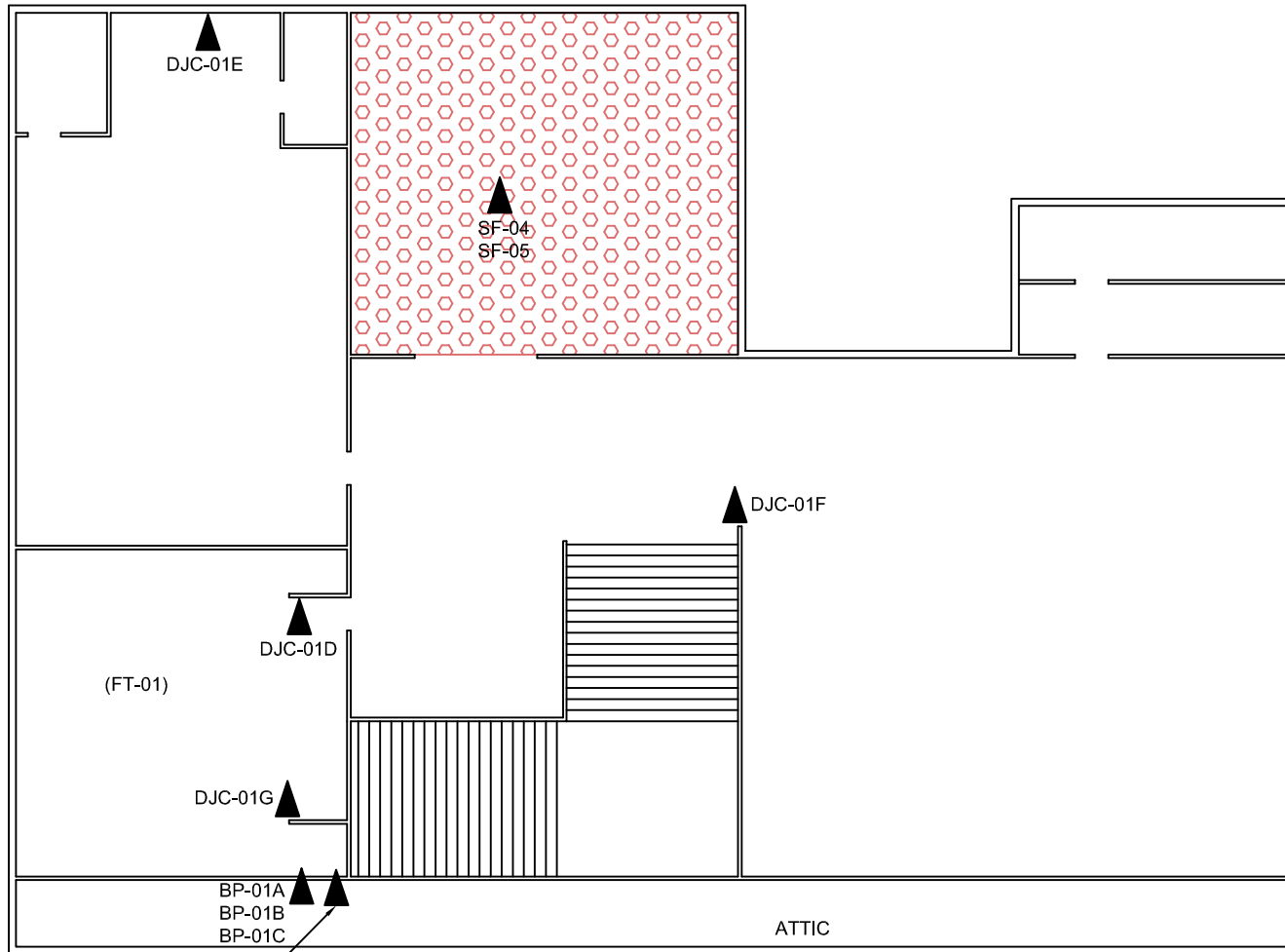


- LEGEND**
- BULK SAMPLE
 - PAINT CHIP SAMPLE
 - ACM SHEET FLOORING
 - ACM CEMENT PANEL
 - NO ACCESS
 - MERCURY-CONTAINING THERMOSTAT

BUILDING 823223: OLD DETACHMENT MAIN FLOOR

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<h2 style="margin: 0;">FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</h2> <p style="margin: 0;">RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<h1 style="font-size: 2em; margin: 0;">D-1</h1>	
	Scale: N.T.S.		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	Date: 15/04/01		
	Dwn. By: CD <small>SL2015040017</small> VM/DM		
	App'd By: TW		



FB-01A
 FB-01B
 FB-01C
 FB-02A
 FB-02B
 FB-02C

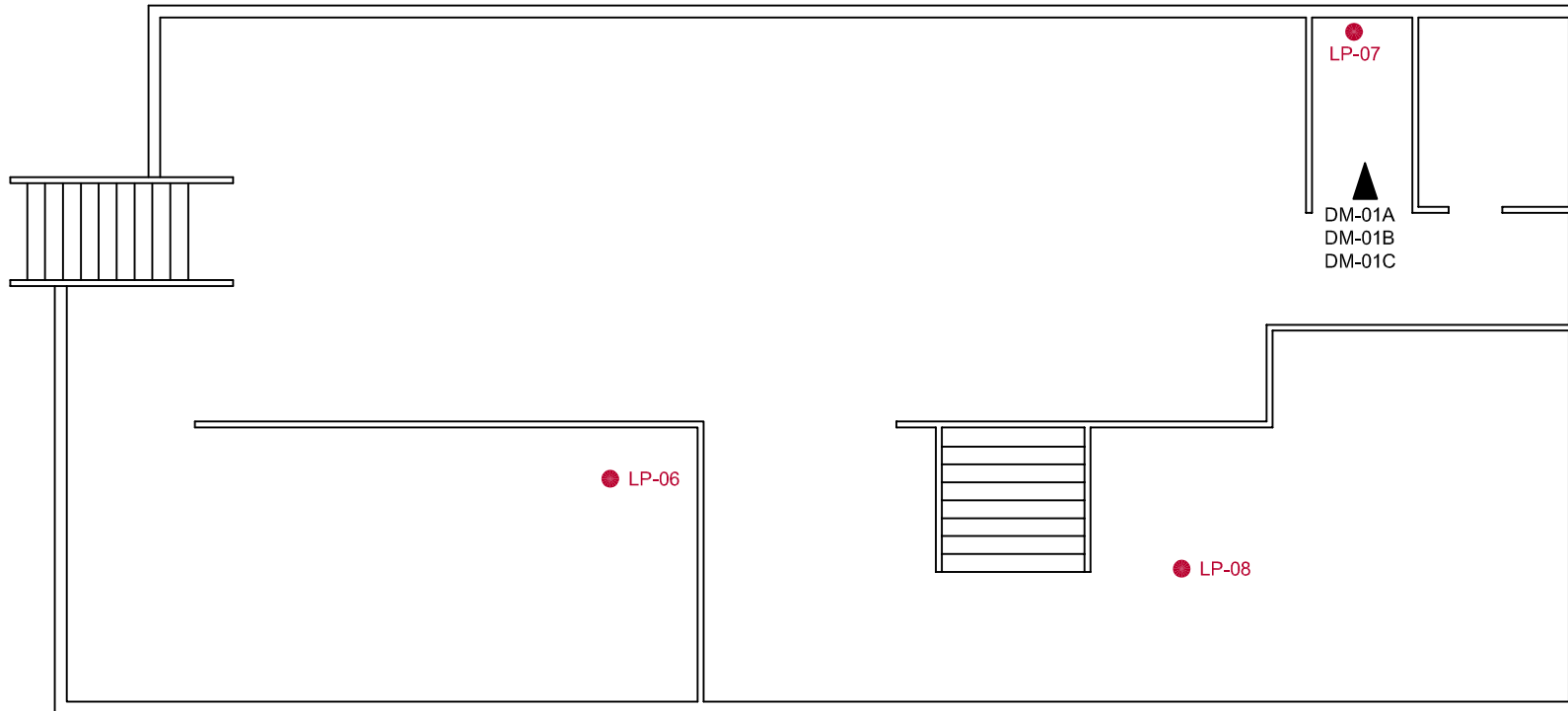
BUILDING 823223: OLD DETACHMENT SECOND FLOOR

LEGEND

- BULK SAMPLE
- ACM SHEET FLOORING

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<h2 style="margin: 0;">FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</h2> <p style="margin: 0;">RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	Dwg.: D-2	
	Scale: N.T.S.		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	Date: 15/04/01		
	Dwn. By: CD <small>SL201504018</small> <small>VM/DM</small>		
	App'd By: TW		



BUILDING 823223: OLD DETACHMENT BASEMENT

NOTES: 1. BROWN HVAC DUCT MASTIC THROUGHOUT IS ASBESTOS-CONTAINING.
2. SUSPECT MOULD PRESENT ON WALLS THROUGHOUT BASEMENT.

3. THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS

RCMP YUKON - TESLIN

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project No.:	123220250.400
Scale:	N.T.S.
Date:	15/03/19
Dwn. By:	CD _{VM} SL2015030199
App'd By:	TW

Dwg.:

D-3





EMSL Canada Inc.

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Phone/Fax: 289-997-4602 / (289) 997-4607
<http://www.EMSL.com> / torontolab@emsl.com

EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Attn: Kim Wiese
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6
Phone: (604) 412-3004
Fax:
Collected:
Received: 3/11/2015
Analyzed: 3/16/2015
Proj: 123220250-400.100

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-FB-01A **Lab Sample ID:** 551502378-0026

Sample Description: CRÈME FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Tan	90%	10%	None Detected	

Client Sample ID: 823223-FB-01B **Lab Sample ID:** 551502378-0027

Sample Description: CRÈME FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Tan	90%	10%	None Detected	

Client Sample ID: 823223-FB-01C **Lab Sample ID:** 551502378-0028

Sample Description: CRÈME FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Brown	90%	10%	None Detected	

Client Sample ID: 823223-FB-02A **Lab Sample ID:** 551502378-0029

Sample Description: BROWN FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Brown	90%	10%	None Detected	

Client Sample ID: 823223-FB-02B **Lab Sample ID:** 551502378-0030

Sample Description: BROWN FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Brown	90%	10%	None Detected	

Client Sample ID: 823223-FB-02C **Lab Sample ID:** 551502378-0031

Sample Description: BROWN FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Brown/Black	85%	15%	None Detected	

Client Sample ID: 823223-CTC-01A **Lab Sample ID:** 551502378-0032

Sample Description: WHITE CEILING TEXTURE COAT KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-CTC-01B **Lab Sample ID:** 551502378-0033
Sample Description: WHITE CEILING TEXTURE COAT KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-CTC-01C **Lab Sample ID:** 551502378-0034
Sample Description: WHITE CEILING TEXTURE COAT KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-CTC-02A **Lab Sample ID:** 551502378-0035
Sample Description: WHITE CEILING TEXTURE COAT/MAIN FLOOR FRONT FOYER AND ROOMS AROUND

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-CTC-02B **Lab Sample ID:** 551502378-0036
Sample Description: WHITE CEILING TEXTURE COAT/MAIN FLOOR FRONT FOYER AND ROOMS AROUND

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-CTC-02C **Lab Sample ID:** 551502378-0037
Sample Description: WHITE CEILING TEXTURE COAT/MAIN FLOOR FRONT FOYER AND ROOMS AROUND

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-CTC-02D **Lab Sample ID:** 551502378-0037A
Sample Description: WHITE CEILING TEXTURE COAT/MAIN FLOOR FRONT FOYER AND ROOMS AROUND

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	Sample not on COC

Client Sample ID: 823223-CTC-02E **Lab Sample ID:** 551502378-0037B
Sample Description: WHITE CEILING TEXTURE COAT/MAIN FLOOR FRONT FOYER AND ROOMS AROUND

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	Sample not on COC

Client Sample ID: 823223-DJC-01A **Lab Sample ID:** 551502378-0038
Sample Description: DRYWALL JOINT COMPOUND/MAIN FLOOR FRONT FOYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-DJC-01B **Lab Sample ID:** 551502378-0039
Sample Description: DRYWALL JOINT COMPOUND/MAIN FLOOR FRONT FOYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DJC-01C **Lab Sample ID:** 551502378-0040
Sample Description: DRYWALL JOINT COMPOUND/WEST STAIRS TO BASEMENT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DJC-01D **Lab Sample ID:** 551502378-0041
Sample Description: DRYWALL JOINT COMPOUND/SECOND FLOOR SW RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DJC-01E **Lab Sample ID:** 551502378-0042
Sample Description: DRYWALL JOINT COMPOUND/SECOND FLOOR NW RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DJC-01F **Lab Sample ID:** 551502378-0043
Sample Description: DRYWALL JOINT COMPOUND/SECOND FLOOR SE RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DJC-01G **Lab Sample ID:** 551502378-0044
Sample Description: DRYWALL JOINT COMPOUND/SECOND FLOOR CLOSET IN SW RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DM-01A **Lab Sample ID:** 551502378-0045
Sample Description: BROWN DUCT MASTIC/BASEMENT NE RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Brown	0.0%	99.1%	0.90% Chrysotile	

Client Sample ID: 823223-DM-01B **Lab Sample ID:** 551502378-0046
Sample Description: BROWN DUCT MASTIC/BASEMENT NE RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015					Positive Stop (Not Analyzed)



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-DM-01C **Lab Sample ID:** 551502378-0047
Sample Description: BROWN DUCT MASTIC/BASEMENT NE RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015					Positive Stop (Not Analyzed)

Client Sample ID: 823223-BP-01A **Lab Sample ID:** 551502378-0048
Sample Description: WHITE BUILDING PAPER/ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	90%	10%	None Detected	

Client Sample ID: 823223-BP-01B **Lab Sample ID:** 551502378-0049
Sample Description: WHITE BUILDING PAPER/ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	90%	10%	None Detected	

Client Sample ID: 823223-BP-01C **Lab Sample ID:** 551502378-0050
Sample Description: WHITE BUILDING PAPER/ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Brown	80%	20%	None Detected	

Client Sample ID: 823223-DSC-01A **Lab Sample ID:** 551502378-0051
Sample Description: WHITE CAULKING EXTERIOR EAST SIDE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White	0.0%	100%	None Detected	

Client Sample ID: 823223-DSC-01B **Lab Sample ID:** 551502378-0052
Sample Description: WHITE CAULKING EXTERIOR EAST SIDE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White	0.0%	100%	None Detected	

Client Sample ID: 823223-DSC-01C **Lab Sample ID:** 551502378-0053
Sample Description: WHITE CAULKING EXTERIOR EAST SIDE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White	0.0%	100%	None Detected	

Client Sample ID: 823223-WC-01A **Lab Sample ID:** 551502378-0054
Sample Description: WHITE WINDOW CAULKING EXTERIOR WINDOWS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White	0.0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-WC-01B **Lab Sample ID:** 551502378-0055
Sample Description: WHITE WINDOW CAULKING EXTERIOR WINDOWS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/White	0.0%	100%	None Detected	

Client Sample ID: 823223-WC-01C **Lab Sample ID:** 551502378-0056
Sample Description: WHITE WINDOW CAULKING EXTERIOR WINDOWS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01A-Shingle **Lab Sample ID:** 551502378-0057
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/Black/Green	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01A-Tar Paper **Lab Sample ID:** 551502378-0057A
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Black	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01B-Shingle **Lab Sample ID:** 551502378-0058
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/Black/Green	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01B-Tar Paper **Lab Sample ID:** 551502378-0058A
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Black	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01C-Shingle **Lab Sample ID:** 551502378-0059
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/Black/Green	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01C-Tar Paper **Lab Sample ID:** 551502378-0059A
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Black	0.0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-CP-01 **Lab Sample ID:** 551502378-0060
Sample Description: CEMENTAL PANEL EXTERIOR SIDING UNDER FIRST LAYER/OF SIDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	88%	12% Chrysotile	

Client Sample ID: 823223-SF-01 **Lab Sample ID:** 551502378-0061
Sample Description: TAN SHEET FLOORING WITH GREY DOTS FRONT FOYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Beige	0.0%	97.4%	2.6% Chrysotile	

Client Sample ID: 823223-SF-02 **Lab Sample ID:** 551502378-0062
Sample Description: TAN SHEET FLOORING WITH BROWN AND ORANGE DOTS/KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Tan/Beige	0.0%	100%	None Detected	

Client Sample ID: 823223-SF-03 **Lab Sample ID:** 551502378-0063
Sample Description: WHITE AND GREY WOOD-LIKE SHEET FLOORING MAIN FLOOR/MAIN FLOOR BATHROOM FLOOR AND WALLS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Beige	0.0%	100%	None Detected	

Client Sample ID: 823223-SF-04 **Lab Sample ID:** 551502378-0064
Sample Description: ORANGE AND YELLOW SHEET FLOORING SECOND FLOOR/BATHROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/Beige/Orange	0.0%	78.9%	21.1% Chrysotile	

Client Sample ID: 823223-SF-05 **Lab Sample ID:** 551502378-0065
Sample Description: GREY AND ORANGE SHEET FLOORING UNDER/SF-04

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	own/Various/Orange	0.0%	100%	None Detected	

Client Sample ID: 823223-SF-06 **Lab Sample ID:** 551502378-0066
Sample Description: BLACK SHEET FLOORING WITH WHITE SMUDGES/STAIRS TO BASEMENT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Black/Beige	0.0%	100%	None Detected	

Client Sample ID: 823223-FT-01 **Lab Sample ID:** 551502378-0067
Sample Description: 12X12" BROWN WOOD-LIKE FLOOR TILE/MAIN FLOOR CLOSET BY STAIRS TO SECOND FLOOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Brown	0.0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-FT-01-Mastic **Lab Sample ID:** 551502378-0067A

Sample Description: 12X12" BROWN WOOD-LIKE FLOOR TILE/MAIN FLOOR CLOSET BY STAIRS TO SECOND FLOOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Brown	0.0%	100%	None Detected	

Analyst(s):

- Arabee Sathiaseelan PLM (10)
PLM Grav. Reduction (17)
- John Biesiadecki PLM (15)
- Nicole Dimou PLM Grav. Reduction (4)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 03/16/2015 18:15:24

**EMSL Canada Inc.**

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EMSL Canada Or	551502408
CustomerID:	55JACQ30L
CustomerPO:	123220250-400
ProjectID:	

Attn: **Kim Wiese**
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6

Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
823223-LP-01 Site: INTERIOR CEMENT Desc: BLUE	551502408-0007		3/16/2015	8900 ppm
823223-LP-02 Site: INTERIOR WALLS Desc: WHITE	551502408-0008		3/16/2015	440 ppm
823223-LP-03 Site: INTERIOR DOOR TRIM Desc: BLUE	551502408-0009		3/16/2015	410 ppm
823223-LP-04 Site: CEMENT FLOOR IN CELLS Desc: RED	551502408-0010		3/16/2015	<90 ppm
823223-LP-05 Site: INTERIOR WALLS IN CELLS Desc: CRÈME	551502408-0011		3/16/2015	110 ppm
823223-LP-06 Site: CEMENT FLOOR Desc: GREY	551502408-0012		3/16/2015	3700 ppm
823223-LP-07 Site: BASEMENT WALLS Desc: YELLOW	551502408-0013		3/16/2015	590 ppm
823223-LP-08 Site: INTERIOR BASEMENT Desc: CRÈME	551502408-0014		3/16/2015	2500 ppm
823223-LP-09 Site: EXTERIOR DECK - OVER RED Desc: BLUE	551502408-0015		3/16/2015	1500 ppm
823223-LP-10 Site: EXTERIOR SIDING Desc: WHITE	551502408-0016		3/16/2015	2600 ppm
823223-LP-11 Site: EXTERIOR TRIM Desc: BLUE	551502408-0017		3/16/2015	3000 ppm

 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44



EMSL Canada Inc.

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EMSL Canada Or	551502408
CustomerID:	55JACQ30L
CustomerPO:	123220250-400
ProjectID:	

Attn: **Kim Wiese**
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6

Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>
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*Lead
Concentration*

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

Lisa Podzyhun
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

APPENDIX E
FINDINGS AND RECOMMENDATIONS
- BUILDING 823234: GARAGE

E-4.0 FINDINGS – BUILDING 823235 GARAGE

Building 823235 Garage was reportedly constructed in 2001.

The results of the assessment for each of the considered hazardous materials within Garage are provided in the following sub-sections.

Floor plan drawings for Building 823235 Garage, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following area was not accessed, for the reason indicated:

- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

E-4.1 Asbestos

Given the reported construction date of Building 823235 Garage (2001), limited ACMs were anticipated to be present. No suspected ACMs were observed through visual assessment and as such, no suspect ACM samples were collected.

E-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes
- Electrical equipment (i.e. batteries for emergency lighting/signage).

With respect to paint, five (5) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table E-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table E-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823235 Garage, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
823235-LP-01	Cement floor	Grey	<110	No
823235-LP-02	Interior walls	White	<130	No
823235-LP-03	Interior door and trim	Blue	<98	No
823235-LP-04	Exterior trim	White	<90	No
823235-LP-05	Exterior posts	Yellow	<97	No

Based on our observations and on our interpretations of suspected LCP sample analytical results, no LCPs were identified.

E-4.3 Polychlorinated Biphenyls

The majority of the approximate thirty (30) fluorescent light fixtures throughout were observed to have high-efficiency light tubes. The ballasts within such fixtures are not suspected to contain PCBs.

E-4.4 Mercury

Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in thirty (30) fluorescent light fixtures.

In addition one (1) suspected mercury-containing thermometer was observed in the garage, as indicated on the attached floor plan drawings.

E-4.5 Mould

Suspect mould or moisture-impacted building materials were not observed at the time of the assessment.

E-4.6 Ozone-Depleting Substances

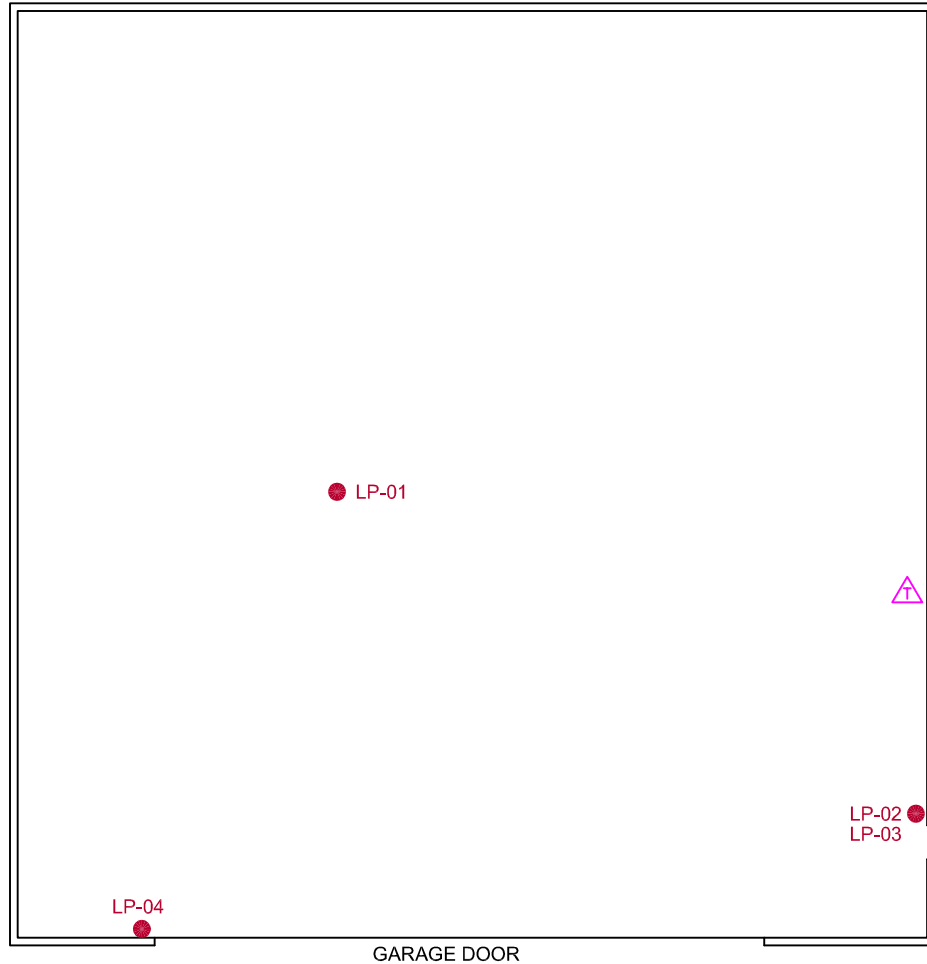
Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

E-4.7 Silica

Silica may be present in concrete in the foundation/floors.

E-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

Identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.



BUILDING 823235: GARAGE



LP-05

LEGEND

- PAINT CHIP SAMPLE
- △ MERCURY-CONTAINING THERMOSTAT

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p style="font-size: 2em;">E</p>	
	Scale: N.T.S.		
	Date: 15/03/19		
	Dwn. By: CD _{VM} SL2015030200		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	App'd By: TW		

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EMSL Canada Or	551502408
CustomerID:	55JACQ30L
CustomerPO:	123220250-400
ProjectID:	

Attn: **Kim Wiese**
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6

Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
823235-LP-01 Site: CEMENT FLOOR Desc: GREY	551502408-0018	3/16/2015		<110 ppm
823235-LP-02 Site: INTERIOR WALLS Desc: WHITE	551502408-0019	3/16/2015		<130 ppm
823235-LP-03 Site: INTERIOR DOOR AND TRIM Desc: BLUE	551502408-0020	3/12/2015		<98 ppm
823235-LP-04 Site: EXTERIOR TRIM Desc: WHITE	551502408-0021	3/12/2015		<90 ppm
823235-LP-05 Site: EXTERIOR POSTS Desc: YELLOW	551502408-0022	3/12/2015		<97 ppm

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

APPENDIX F
FINDINGS AND RECOMMENDATIONS
– BUILDING 823236: MAIN DETACHMENT

F-4.0 FINDINGS – BUILDING 823236 MAIN DETACHEMENT

Building 823236 Main Detachment was reportedly constructed in 1995.

The results of the assessment for each of the considered hazardous materials within the Main Detachment are provided in the following sub-sections.

Floor plan drawings for Building 823236 Main Detachment, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following area was not accessed, for the reason indicated:

- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

F-4.1 Asbestos

Given the reported construction date of Building 823236 Main Detachment (1995), limited ACMs were anticipated to be present. As a measure of diligence, and for confirmatory purposes, Stantec identified and sampled various materials that would be suspected ACMs if present in buildings of older vintage, including the following:

- Green duct mastic
- Red rubber gasket
- Grey penetration putty

Twelve (12) samples of the above-noted suspected ACMs were collected and submitted to EMSL for analysis of asbestos content and nature.

A summary of the sample types, locations and analytical results is presented in Table F-4.1.1, below. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are attached at the end of this Appendix.

**Table F-4.1.1: Suspected ACM Sample Collection and Analysis Summary
Building 823236 Main Detachment, Teslin, YT**

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
823236-DM-01A	Green duct mastic	Basement ducting	None Detected
823236-DM-01B	Green duct mastic	Basement ducting	None Detected
823236-DM-01C	Green duct mastic	Basement ducting	None Detected
823236-RG-01A	Red rubber gasket	Basement drainage pipe	None Detected
823236-RG-01B	Red rubber gasket	Basement drainage pipe	None Detected
823236-RG-01C	Red rubber gasket	Basement drainage pipe	None Detected
823236-PP-01A	Grey penetration putty	Electrical room	None Detected
823236-PP-01B	Grey penetration putty	Electrical room	None Detected
823236-PP-01C	Grey penetration putty	Electrical room	None Detected
823236-PP-02A	Grey penetration putty	Exterior penetrations	None Detected
823236-PP-02B	Grey penetration putty	Exterior penetrations	None Detected
823236-PP-02C	Grey penetration putty	Exterior penetrations	None Detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of suspected ACM sample analytical results, no ACMs were identified.

F-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes
- Electrical equipment (i.e. batteries for emergency lighting/signage).

With respect to paint, six (6) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table F-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table F-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823236 Main Detachment, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
823236-LP-01	Interior paint in holding cell area	White	<90	No
823236-LP-02	Cement floor in garage	Blue	<130	No
823236-LP-03	Trim in garage	Dark blue	<90	No
823236-LP-04	Tanks in basement	Red	<120	No
823236-LP-05	Exterior trim	Light blue	350	No
823236-LP-06	Exterior base board	White	<90	No

Based on our observations and on our interpretations of suspected LCP sample analytical results, no LCPs were identified.

F-4.3 Polychlorinated Biphenyls

The majority of the approximate thirty-six (36) fluorescent light fixtures throughout were observed to have high-efficiency light tubes. The ballasts within such fixtures are not suspected to contain PCBs.

F-4.4 Mercury


Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in thirty-six (36) fluorescent light fixtures.

In addition one (1) suspected mercury-containing thermometer was observed in the holding/cell area, as indicated on the attached floor plan drawings.

F-4.5 Mould

Mould/moisture damage was observed as summarized in Table F-4.5.1, below.

Table F-4.5.1: Summary of Identified Mould and/or Moisture-Impacted Materials Building 823236 Main Detachment, Teslin, YT

Identified Mould and/or Moisture Impacted Materials Description	Photo
<p>Water stained ceiling tiles observed in the basement by the oil storage tanks.</p> <p>Suspected source of moisture was pipe leaks in the ceiling space – or potentially condensation from HVAC systems and associated drip-pan overflow.</p>	

F-4.6 Ozone-Depleting Substances

Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

F-4.7 Silica

Silica may be present in concrete, ceramic tiles, and acoustical ceiling tiles observed in various locations throughout.

F-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

In general, identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.

Additional building-specific recommendations to be considered are provided below.

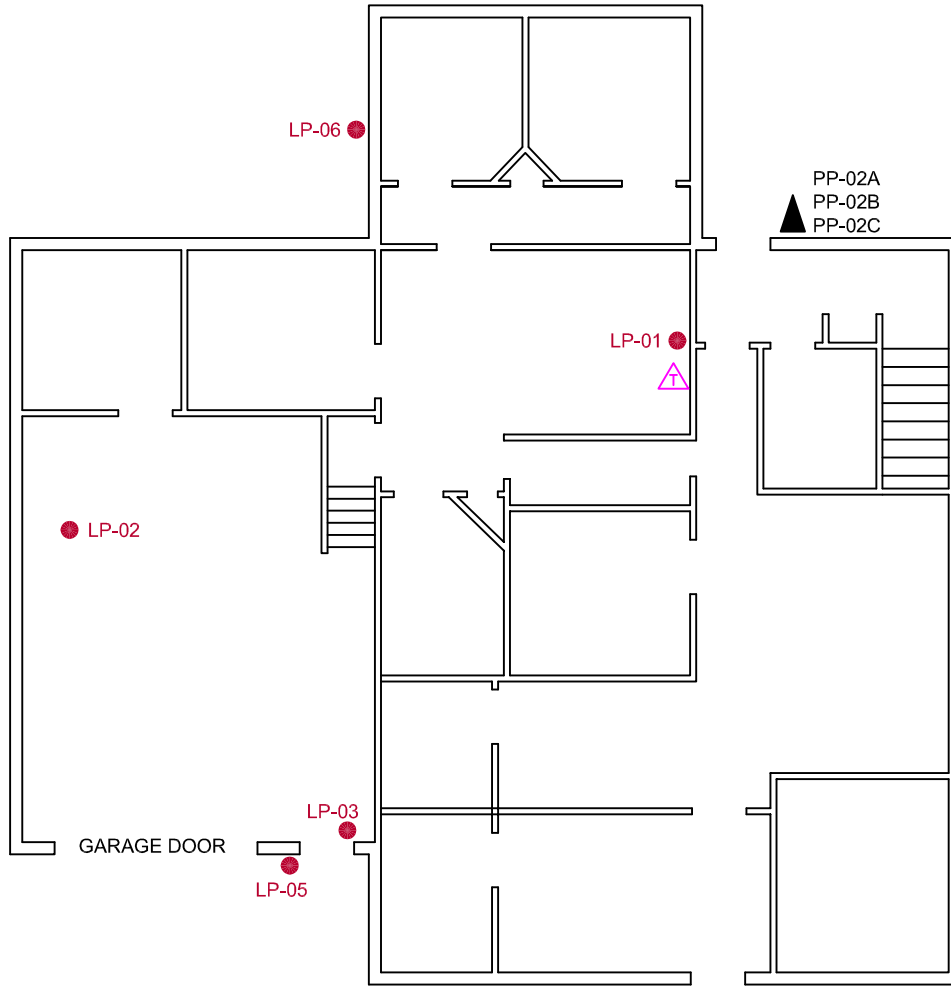
F-5.5 Mould

Stantec recommends the following course of action within the subject building:

- Remove and replace moisture-stained ceiling tiles with new tiles. If staining re-appears on the new tiles, the source of moisture should be identified and corrected. This work

can be conducted by regular facility maintenance staff, if conducted prior to the onset of mould growth.

- An assessment to determine the likely source(s) of water staining should be undertaken. Issues leading to moisture impacts and/or mould growth should be identified and addressed prior to reinstating building materials to areas where mould abatement is conducted, to avoid the potential for re-wetting of new materials, and repeated mould growth.



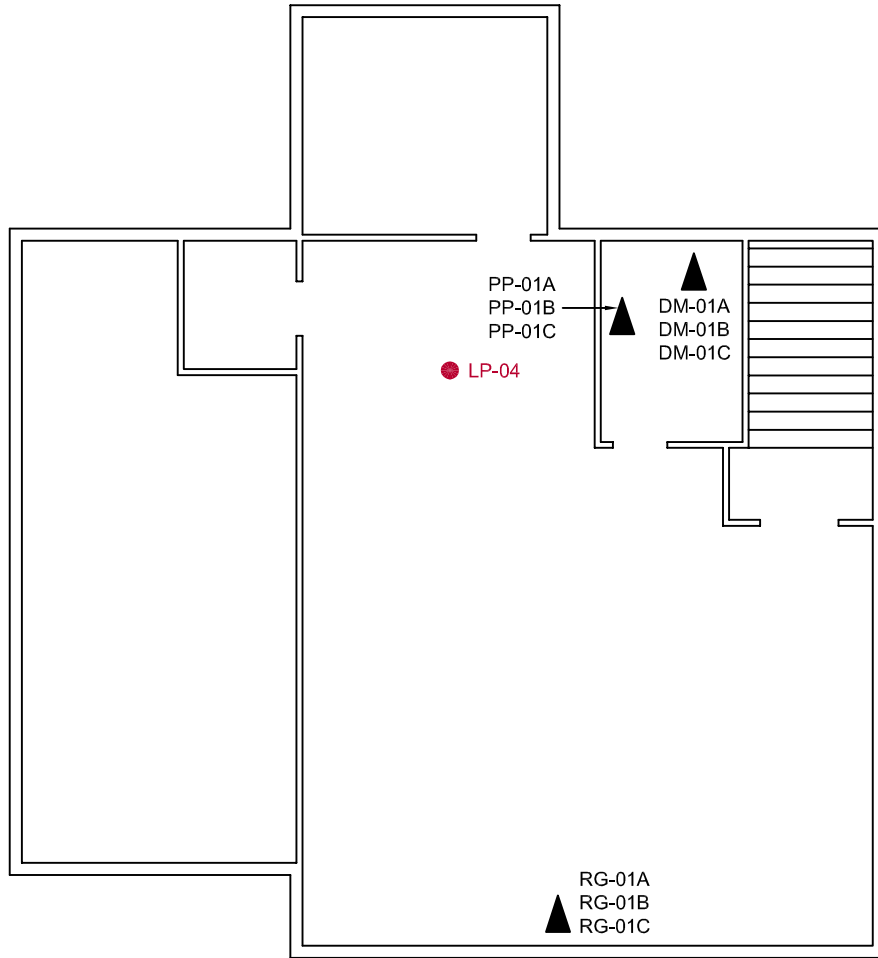
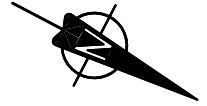
**BUILDING 823236: MAIN DETACHMENT
MAIN FLOOR**

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE
- MERCURY-CONTAINING THERMOSTAT

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p>F-1</p>	
	Scale: N.T.S.		
	Date: 15/03/19		
	Dwn. By: CD _{VM} SL2015030201		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	App'd By: TW		



**BUILDING 823236: MAIN DETACHMENT
BASEMENT**

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p style="font-size: 2em;">F-2</p>
	Scale: N.T.S.	
	Date: 15/03/19	
	Dwn. By: CD _{VM} SL2015030202	
App'd By: TW	<p>Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA</p>	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Attn: Kim Wiese
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6
Proj: 123220250-400.100
Phone: (604) 412-3004
Fax:
Collected:
Received: 3/11/2015
Analyzed: 3/16/2015

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823236-DM-01A **Lab Sample ID:** 551502378-0068

Sample Description: GREEN DUCT MASTIC BASEMENT DUCTING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-DM-01B **Lab Sample ID:** 551502378-0069

Sample Description: GREEN DUCT MASTIC BASEMENT DUCTING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-DM-01C **Lab Sample ID:** 551502378-0070

Sample Description: GREEN DUCT MASTIC BASEMENT DUCTING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-RG-01A **Lab Sample ID:** 551502378-0071

Sample Description: RED RUBBER GASKET BASEMENT DRAINAGE PIPE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Red	0.0%	100%	None Detected	

Client Sample ID: 823236-RG-01B **Lab Sample ID:** 551502378-0072

Sample Description: RED RUBBER GASKET BASEMENT DRAINAGE PIPE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Red	0.0%	100%	None Detected	

Client Sample ID: 823236-RG-01C **Lab Sample ID:** 551502378-0073

Sample Description: RED RUBBER GASKET BASEMENT DRAINAGE PIPE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Red	0.0%	100%	None Detected	

Client Sample ID: 823236-PP-01A **Lab Sample ID:** 551502378-0074

Sample Description: GREY PENETRATION PUTTY ELECTRICAL ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823236-PP-01B **Lab Sample ID:** 551502378-0075
Sample Description: GREY PENETRATION PUTTY ELECTRICAL ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-PP-01C **Lab Sample ID:** 551502378-0076
Sample Description: GREY PENETRATION PUTTY ELECTRICAL ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-PP-02A **Lab Sample ID:** 551502378-0077
Sample Description: GREY PENETRATION PUTTY EXTERIOR PENETRATIONS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-PP-02B **Lab Sample ID:** 551502378-0078
Sample Description: GREY PENETRATION PUTTY EXTERIOR PENETRATIONS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-PP-02C **Lab Sample ID:** 551502378-0079
Sample Description: GREY PENETRATION PUTTY EXTERIOR PENETRATIONS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Analyst(s):

Arabee Sathiaselan PLM Grav. Reduction (8)
Nicole Dimou PLM Grav. Reduction (4)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 03/16/2015 15:24

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EMSL Canada Or	551502408
CustomerID:	55JACQ30L
CustomerPO:	123220250-400
ProjectID:	

Attn: **Kim Wiese**
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6

Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
823236-LP-01 Site: INTERIOR PAINT IN HOLDING CELL AREA Desc: WHITE	551502408-0023	3/12/2015		<90 ppm
823236-LP-02 Site: CEMENT FLOOR IN GARAGE Desc: BLUE	551502408-0024	3/12/2015		<130 ppm
823236-LP-03 Site: TRIM IN GARAGE Desc: DARK BLUE	551502408-0025	3/12/2015		<90 ppm
823236-LP-04 Site: TANKS IN BASEMENT Desc: RED	551502408-0026	3/16/2015		<120 ppm
823236-LP-05 Site: EXTERIOR TRIM Desc: LIGHT BLUE	551502408-0027	3/16/2015		350 ppm
823236-LP-06 Site: EXTERIOR BASE BOARD Desc: WHITE	551502408-0028	3/16/2015		<90 ppm

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

APPENDIX G
FINDINGS AND RECOMMENDATIONS
– BUILDING 823256: RESIDENCE

G-4.0 FINDINGS – BUILDING 823256 RESIDENCE

Building 823256 Residence was reportedly constructed in 1993.

The results of the assessment for each of the considered hazardous materials within the Residence are provided in the following sub-sections.

Floor plan drawings for Building 823256 Residence, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following area was not accessed, for the reason indicated:

- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

G-4.1 Asbestos

Given the reported construction date of Building 823256 Residence (1993), limited ACMs were anticipated to be present. As a measure of diligence, and for confirmatory purposes, Stantec identified and sampled various materials that would be suspected ACMs if present in buildings of older vintage, including the following:

- Tan sheet flooring
- White ceiling texture coat
- Drywall joint compound

Nine (9) samples of the above-noted suspected ACMs were collected and submitted to EMSL for analysis of asbestos content and nature.

A summary of the sample types, locations and analytical results is presented in Table B-4.1.1, below. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are attached at the end of this Appendix.

**Table B-4.1.1: Suspected ACM Sample Collection and Analysis Summary
Building 823256 Residence, Teslin, YT**

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
823256-SF-01	Tan sheet flooring	Under laminate in kitchen and living room	None Detected
823256-CTC-01A	White ceiling texture coat	Kitchen	None Detected
823256-CTC-01B	White ceiling texture coat	Main floor foyer	None Detected
823256-CTC-01C	White ceiling texture coat	Bedroom	None Detected
823256-DJC-01A	Drywall joint compound	Main floor hallway	None Detected
823256-DJC-01B	Drywall joint compound	Basement stairs landing	None Detected
823256-DJC-01C	Drywall joint compound	Kitchen by stairs	None Detected
823256-DJC-01D	Drywall joint compound	Main floor bathroom	None Detected
823256-DJC-01E	Drywall joint compound	Bedroom	None Detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of suspected ACM sample analytical results, no ACMs were identified.

G-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes

With respect to paint, two (2) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table B-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table B-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823256 Residence, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
823256-LP-01	Basement floor paint	Grey	<260	No
823256-LP-02	Exterior stairs	Grey	<110	No

Based on our observations and on our interpretations of suspected LCP sample analytical results, no ACMs were identified.

G-4.3 Polychlorinated Biphenyls

Based on the construction date of the building (1992), PCBs are not anticipated to be present.

G-4.4 Mercury

Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in two (2) fluorescent light fixtures.

G-4.5 Mould

Suspect mould or moisture-impacted building materials were not observed at the time of the assessment.

G-4.6 Ozone-Depleting Substances

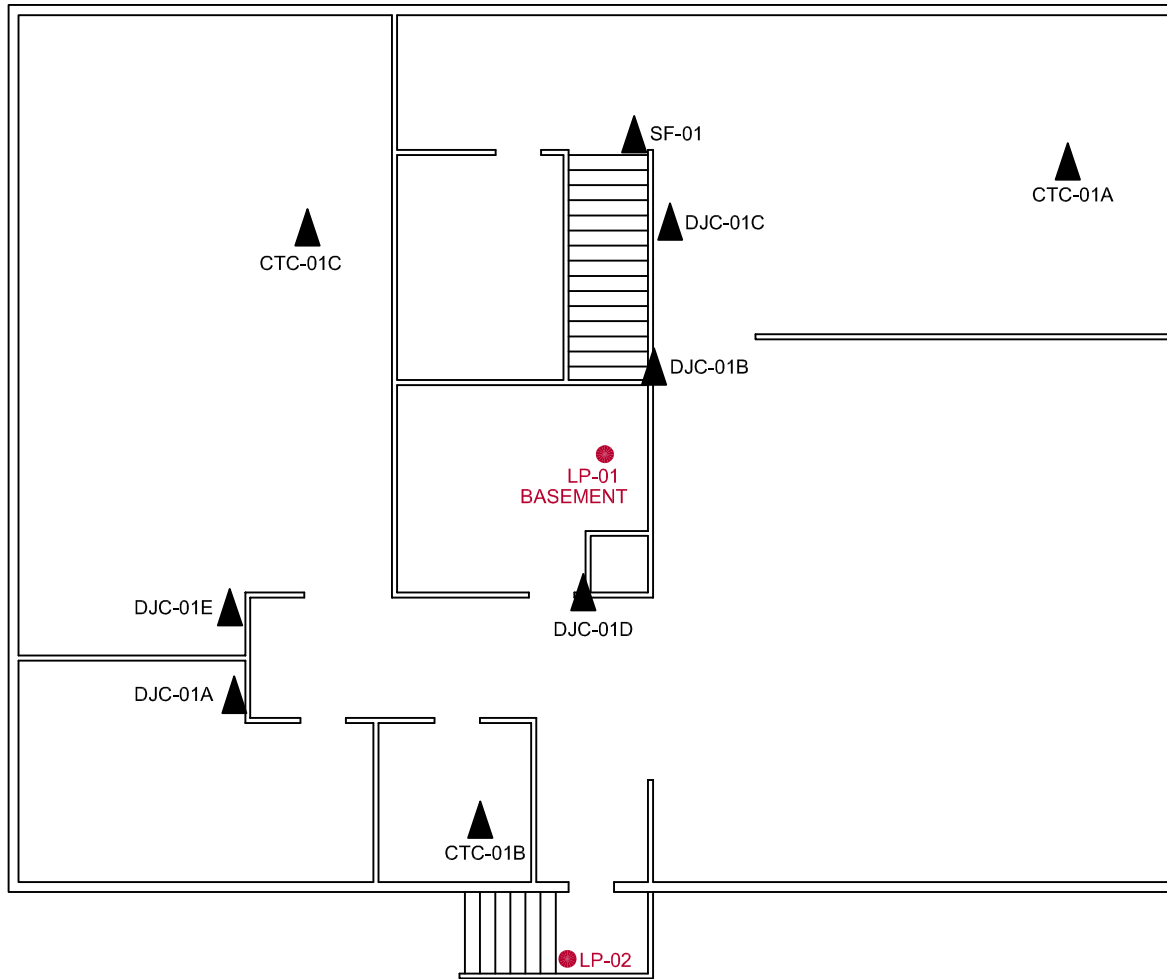
Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

G-4.7 Silica

Silica may be present in concrete in the foundation/floors.

G-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

Identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.



BUILDING 823256: RESIDENCE

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	<p>Project No.: 123220250,400</p>	<p>G</p>	
	<p>Scale: N.T.S.</p>		
<p>Date: 15/04/01</p>			
<p>Dwn. By: CD <small>SL2015040019</small> VM/DM</p>			
<p>App'd By: TW</p>			
<p>Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA</p>			



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Attn: Kim Wiese
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6
Phone: (604) 412-3004
Fax:
Collected:
Received: 3/11/2015
Analyzed: 3/16/2015
Proj: 123220250-400.100

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823256-SF-01 **Lab Sample ID:** 551502378-0080

Sample Description: TAN SHEET FLOORING UNDER LAMINATE IN KITCHEN/AND LIVING RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White/Beige	0.0%	100%	None Detected	

Client Sample ID: 823256-CTC-01A **Lab Sample ID:** 551502378-0081

Sample Description: WHITE CEILING TEXTURE COAT KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-CTC-01B **Lab Sample ID:** 551502378-0082

Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR FOYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-CTC-01C **Lab Sample ID:** 551502378-0083

Sample Description: WHITE CEILING TEXTURE COAT BEDROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-DJC-01A **Lab Sample ID:** 551502378-0084

Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR HALLWAY

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-DJC-01B **Lab Sample ID:** 551502378-0085

Sample Description: DRYWALL JOINT COMPOUND BASEMENT STAIRS LANDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-DJC-01C **Lab Sample ID:** 551502378-0086

Sample Description: DRYWALL JOINT COMPOUND KITCHEN BY STAIRS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823256-DJC-01D **Lab Sample ID:** 551502378-0087
Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR BATHROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-DJC-01E **Lab Sample ID:** 551502378-0088
Sample Description: DRYWALL JOINT COMPOUND BEDROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Analyst(s):

Arabee Sathiaseelan PLM (3)
PLM Grav. Reduction (1)
John Biesiadecki PLM (5)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 03/16/2015 18:15:24

**EMSL Canada Inc.**

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<http://www.EMSL.com>torontolab@emsl.com

EMSL Canada Or	551502408
CustomerID:	55JACQ30L
CustomerPO:	123220250-400
ProjectID:	

Attn: **Kim Wiese**
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6

Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
823256-LP-01	551502408-0029	3/16/2015		<260 ppm
	Site: BASEMENT FLOOR PAINT Desc: GREY			
823256-LP-02	551502408-0030	3/16/2015		<110 ppm
	Site: EXTERIOR STAIRS Desc: GREY			

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

RCMP Detachment
Teslin, YT



Prepared for:
Public Works and Government
Services Canada
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Project No.: 123220250

November 3, 2016

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HAZARDOUS BUILDING MATERIALS ASSESSMENTS

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RESIDENCE G.1

Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Public Works and Government Services Canada (PWGSC) on behalf of the Royal Canadian Mounted Police (RCMP) to conduct hazardous building materials assessments within 6 buildings (subject buildings) associated with the Teslin RCMP detachment, located in Teslin, YT.

The purpose of the assessment was to check for potential hazardous building materials that may require special attention in accordance with the requirements of the Canada Labour Code, Part II (Canada Labour Code), Yukon Workers' Compensation Health and Safety Board (WCB) and the current version of the *Yukon Territory Occupational Health and Safety Act and Regulations* (YT OHS Reg.), for continued operations and maintenance.

The hazardous building materials considered included asbestos-containing materials (ACMs), lead-containing materials including lead-containing paints (LCPs), polychlorinated biphenyls (PCBs), mercury-containing items, ozone-depleting substances (ODSs), mould-impacted building materials and silica.

Based on Stantec's visual assessment and on the laboratory analyses performed on samples collected, hazardous building materials were identified within many of the subject buildings.

A summary of our findings and recommendations is presented below. It should be noted that this summary is subject to the same restrictions and limitations as presented in **Section 3** (Assessment Limitations) and **Section 6** (Closure). The information provided is to be read in conjunction with the remainder of this report.

NOTE: Where particular hazardous building materials are not listed in the following table, they were not identified in that particular building.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Summary of Identified Hazardous Building Materials	
Building	Identified Hazardous Building Materials
House #17: Residence	<p>Lead</p> <ul style="list-style-type: none"> Lead is expected to be present in solder used on copper domestic pipes and caulking on bell fittings for cast iron drainage pipes. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete in the foundation/floors.
House #23: Residence	<p>Lead</p> <ul style="list-style-type: none"> Lead is expected to be present in solder used on copper domestic pipes and caulking on bell fittings for cast iron drainage pipes. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete in the foundation/floors.
823223: Old Detachment	<p>Asbestos</p> <ul style="list-style-type: none"> Brown duct mastic throughout is asbestos-containing. Cement panel on the exterior siding under the first layer of siding is asbestos-containing. Tan sheet flooring with grey dots in the front foyer, central stairwell to basement and stairwell to cells is asbestos-containing. Orange and yellow sheet flooring in the second floor bathroom is asbestos-containing. <p>Lead</p> <ul style="list-style-type: none"> Blue paint on cement on the main floor is lead-containing. Grey paint on the cement floor in the basement is lead-containing. Cream paint on the interior basement walls is lead-containing. Blue paint on the exterior deck (over red primer) is lead-containing. White paint on the exterior siding is lead-containing. Blue paint on the exterior trim is lead-containing. Lead is expected to be present in solder used on copper domestic pipes, caulking on bell fittings for cast iron drainage pipes and in electrical equipment (i.e., batteries for emergency lighting/signage). <p>Mould</p> <ul style="list-style-type: none"> Moisture stained drywall throughout the basement was observed. <p>Mercury</p> <ul style="list-style-type: none"> One (1) suspected mercury-containing thermometer was observed on the main floor in the southwest room, as indicated on the attached floor plan drawings. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete observed in various locations throughout.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Summary of Identified Hazardous Building Materials	
Building	Identified Hazardous Building Materials
823235: Garage	<p>Lead</p> <ul style="list-style-type: none"> Lead is expected to be present in solder used on copper domestic pipes, caulking on bell fittings for cast iron drainage pipes and in electrical equipment (i.e., batteries for emergency lighting/signage). <p>Mercury</p> <ul style="list-style-type: none"> Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in thirty (30) fluorescent light fixtures. In addition one (1) suspected mercury-containing thermometer was observed in the garage, as indicated on the attached floor plan drawings. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete in the foundation/floors.
823236: Main Detachment	<p>Lead</p> <ul style="list-style-type: none"> Lead is expected to be present in solder used on copper domestic pipes, caulking on bell fittings for cast iron drainage pipes and in electrical equipment (i.e., batteries for emergency lighting/signage). <p>Mould</p> <ul style="list-style-type: none"> Water stained ceiling tiles were observed in the basement by the oil storage tanks. <p>Mercury</p> <ul style="list-style-type: none"> Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in thirty-six (36) fluorescent light fixtures. In addition one (1) suspected mercury-containing thermometer was observed in the holding/cell area, as indicated on the attached floor plan drawings. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete, cement and ceramic tiles observed in various locations throughout.
823256: Residence	<p>Lead</p> <ul style="list-style-type: none"> Lead is expected to be present in solder used on copper domestic pipes and caulking on bell fittings for cast iron drainage pipes. <p>Mercury</p> <ul style="list-style-type: none"> Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in two (2) fluorescent light fixtures. <p>Silica</p> <ul style="list-style-type: none"> Silica may be present in concrete in the foundation/floors.

Building-by-building summaries of the identified hazardous building materials, as well as building-specific recommendations to address identified hazardous building materials in non-compliant conditions are provided in **Appendix B through Appendix G**. General findings and recommendations pertaining to hazardous building materials within the subject buildings are provided in **Section 4** and **Section 5** of this report.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Introduction
November 3, 2016

1.0 INTRODUCTION

Stantec Consulting Ltd. (Stantec) was retained by Public Works and Government Services Canada (PWGSC) on behalf of the Royal Canadian Mounted Police (RCMP) to conduct hazardous building materials assessments within 6 buildings (subject buildings) associated with the Teslin RCMP detachment, located in Teslin, YT.

The purpose of the assessment was to check for potential hazardous building materials that may require special attention in accordance with the requirements of the Canada Labour Code, Part II (Canada Labour Code), Yukon Workers' Compensation Health and Safety Board (WCB) and the current version of the *Yukon Territory Occupational Health and Safety Act and Regulations* (YT OHS Reg.), for continued operations and maintenance.

The hazardous building materials considered included asbestos-containing materials (ACMs), lead-containing materials including lead-containing paints (LCPs), polychlorinated biphenyls (PCBs), mercury-containing items, ozone-depleting substances (ODSs), suspected mould-impacted building materials and silica.

The site work was conducted by Keith Irwin and Kim Wiese of Stantec on March 3, 2015.

1.1 UNDERSTANDING OF THE PROJECT

Stantec understands that the information pertaining to the identity, location and approximate extent of hazardous building materials (if any) within the subject building is either not on-file or outdated. As such, and in accordance with the requirements of the Canada Labour code, the YT OHS Reg. and RCMP's internal management practices pertaining to identifying hazards associated with hazardous building materials in the workplace, PWGSC commissioned this assessment.

A list of the buildings included in this assessment is provided in **Appendix A**.

2.0 SCOPE AND METHODOLOGY

Keith Irwin and Kim Wiese of Stantec conducted a visual assessment within the subject buildings on March 3, 2015. Site work was conducted in general compliance with the requirements of the Canada Labour Code, the WCB, the current version of the YT OHS Reg. and Stantec's Safe Work Practices (SWPs).

Mechanical systems, structures and finishes of the subject buildings were visually examined to determine the suspected presence of ACMs, lead including LCPs, PCBs, mercury, ODSs, mould, and silica. Where building materials were suspected but not confirmed to contain asbestos, lead (in paint), or mould samples were collected for analysis to confirm or deny the presence of



HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Scope and Methodology
November 3, 2016

these hazardous materials. Based on analytical results, visually similar materials were referenced to specific analyzed samples to reduce the number of samples collected.

Additional background information and the methodology used for the determination of presence or absence of each specific hazardous material considered in this assessment are outlined in the following sections.

2.1 ASBESTOS

The common use of friable (materials which, when dry, can be easily crumbled or powdered by hand pressure) ACMs in construction generally ceased voluntarily in the mid-1970s but was only banned through legislation by the late 1980s. Friable asbestos was used in many building products, primarily high temperature insulations, spray-applied structural fireproofing, and a material known as vermiculite that was commonly used as block wall insulation and may be contaminated with asbestos fibres. Asbestos was also used in many non-friable manufactured products such as floor tiles, ceiling tiles, Transite™ cement products, and various other construction materials. Some cement products currently used in the construction of buildings may still contain asbestos.

The presence of asbestos in federal workplaces, and pertaining to federally regulated workers is governed by the Canada Labour Code. The presence of asbestos in the workplace in the Yukon pertaining to territorially regulated workers is governed by the WCB, with provisions published in the current version of the YT OHS Reg. As both federally regulated workers and territorially regulated workers (e.g., contractors) are expected to carry out work activities within the subject buildings, and as the territorial regulations are generally more prescriptive pertaining to asbestos (and generally include the requirements noted in the Canada Labour Code), this assessment was conducted to meet the requirements of the current version of the YT OHS Reg.

According to current version of the YT OHS Reg., asbestos-containing material (ACM) means any material which is found to contain any asbestos.

Based on this criterion, a visual assessment of accessible areas was undertaken in order to check for the presence of materials suspected of containing asbestos. Locations to collect discrete bulk asbestos samples of suspect building materials were identified. Samples of representative materials were then collected at these locations.

Multiple samples were collected from each "homogenous application" of observed suspected ACMs (materials suspected to contain asbestos that are uniform in material type, colour, texture application and estimated installation date) and submitted to EMSL Canada Inc. (EMSL) in Mississauga, Ontario for analysis of asbestos content using polarized light microscopy (PLM) with dispersion staining, in accordance with the United States Environmental Protection Agency (EPA) 600/R-93/116 method.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Scope and Methodology
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The number of samples to be collected for each homogenous application of a suspected ACM was based on accepted occupational hygiene standards and protocols, along with the assessor's experience and understanding of the consistency of that building material's application.

EMSL's analytical laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

2.1.1 Sample Results Interpretation

When asbestos is detected in one of the samples within a set that was collected to represent a "homogenous application" of a particular material, the entire sample set and the entire application of that material is then considered to be an ACM.

In addition to the above, a "positive stop" option was used during the laboratory analysis of the building material samples submitted for asbestos analysis. The "positive stop" option is utilized by the laboratory when asbestos is detected at a concentration of greater than one percent in one of the samples within a set that was collected to represent a "homogenous application" of that material. At this point, further analysis of subsequent samples within the set is deemed to be unnecessary (as the entire set will be considered an ACM, per above), and the remainder of the samples within the set are not analysed.

2.1.2 Potential Asbestos-Containing Vermiculite Insulation

As part of the assessment, Stantec assessed the subject buildings for areas where vermiculite insulation, a potential ACM, would likely be present. This included making note of and assessing attic spaces, floor cavities and masonry or brick walls, which are typical areas where vermiculite is found. Where masonry or brick walls were observed, destructive assessment (drilling) was not conducted to assess the cavity for the presence of vermiculite.

2.1.3 Asbestos Sampling Quality Assurance/Quality Control

Sampling activities pertaining to asbestos were conducted in accordance with Stantec's Safe Work Practices (SWPs), which take into account current territorial regulations pertaining to such work (i.e., sampling procedures, required number of samples, and laboratory analytical procedures).

Representative bulk samples were collected of accessible suspect ACMs in sufficient quantities for laboratory analyses. Suspect ACM samples were sealed in polyethylene zip-lock bags labeled with the sample number, suspect material description, and sample location. As part of sampling procedures, sampling tools were cleaned between sample collection events to avoid the potential for cross-contamination of samples.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

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Sample bags were compiled in order and placed into a single container accompanied with a Chain of Custody form outlining the project information, date, building location, number of samples, and sample description. Samples were submitted to the analytical laboratory in a sealed container via courier.

2.2 LEAD

Lead may be used in its pure metallic form or combined chemically with other elements to form lead compounds. Metallic lead is used to make products such as electric storage batteries, ammunition, lead solder, radiation shields, pipes, and sheaths for electric cables. Metallic lead is sometimes combined with other metals such as copper, tin, and antimony as lead alloys for use in the manufacture of a variety of metal products. Lead is commonly found in buildings in the solder used on copper domestic pipes, in the caulking on bell fittings of cast iron drainage pipes and in electrical equipment.

The presence of lead-containing materials (other than paint) was assessed through visual means.

With respect to potential lead exposures associated with disturbance to surfaces coated with lead-containing products, various occupational health and safety administrations have indicated that working with materials coated with paint that has a lead content that exceeds 600 ppm can lead to exposures in excess of 50% of the occupational exposure limit (OEL) for lead, when the OEL is 0.05 mg/m³ (the OEL for lead in the Yukon, according to the current version of the YT OHS Reg., is 0.15 mg/m³).

Prior to disposal, Yukon Environment recommends that analytical results for building materials should be compared to the territorial soil guideline value of 1,000 ppm as found in the Contaminated Sites Regulations. As such, and given that the OEL for lead in the Yukon is 3 times that of jurisdictions that reference 600 ppm as lead-containing, Stantec will reference the 1,000 ppm value in defining paints as "lead-containing" as the most applicable criteria.

Based on this criterion, samples of suspected LCPs were collected from major paint applications, and were collected to substrate, where possible, in sufficient quantity to conduct analyses for total lead content. Samples collected were placed into separate, sealed, and labeled polyethylene bags, and submitted to EMSL for analyses of total lead content using Flame Atomic Absorption Spectrometry AAS (SW 846 3050B*/7000B).

EMSL's analytical laboratory is also accredited by the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Approval Program.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

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2.3 POLYCHLORINATED BIPHENYLS

PCBs were used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment. In fluorescent fixtures, PCBs were usually found within the small capacitors inside the ballast that controls the lamp. The Federal Chlorobiphenyls Regulation, SOR/91-152, prohibited the use of PCBs in electrical equipment manufactured after July 1, 1980.

The presence of PCB-containing equipment was assessed through visual means. With respect to fluorescent lamp ballasts, due to the risk of electrical shock associated with dismantling operating fixtures, fluorescent lamp ballasts were not removed to view identification numbers/information.

The total number of fluorescent lamp fixtures with ballasts that may contain PCBs within the subject buildings was approximated.

Suspected PCB-containing electrical equipment can be visually inspected and compared to the Environment Canada reference guide entitled "*Identification of Lamp Ballasts Containing PCBs, Report EPS 2/CC/2*", dated August 1991 (PCB Guide).

2.4 MERCURY

Mercury is commonly found in buildings as mercury vapour lighting, thermostats/thermometers with mercury-containing glass ampoules, electrical switches and can also be found in minor amounts in fluorescent lamp tubes and vapour bulbs and may be present in stable forms in adhesives. Exposure to mercury in workplaces is governed by the WCB.

The presence of mercury and mercury-containing equipment was assessed through visual means.

2.5 MOULD

Moist building materials may provide suitable conditions for mould growth, and the removal of building materials impacted by mould growth may require workers with specific training and experience using work procedures that have been developed to protect workers and work areas from exposure to elevated concentrations of airborne mould.

The presence of suspect visible mould was assessed through visual means and limited sampling. Material observed with dark-colored staining and/or a textured and discolored appearance is described as "suspect mould". Mould identified visually is defined as "suspect mould" unless it is confirmed as mould by laboratory analysis.

Two bulk samples were collected from building materials exhibiting visual evidence of suspect mould growth in one of the residences scheduled for demolition. The bulk samples collected were placed into a separate, labeled plastic bag that was sealed and submitted to Sporometrics Inc. (Sporometrics) of Toronto, ON for analysis of the mould forms present.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Scope and Methodology
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Sporometrics is accredited through the American Industrial Hygiene Association's Environmental Microbiology Proficiency Analytical Testing (EMPAT) program.

2.5.1 Mould Reference Guidelines

With respect to mould and/or moisture, the visual assessment and bulk sampling procedures utilized during this project were based on the recommendations provided in the documents listed below:

- Standard Construction Document CCA 82 "Mould Guidelines for the Canadian Construction Industry", Canadian Construction Association, 2004 (referred to as "CCA 82").
- "Guidelines on Assessment and Remediation of Fungi in Indoor Environment", New York City Department of Health, Bureau of Environmental and Occupational Disease Epidemiology, April 2000 (referred to as the "NYC Guidelines").
- "Fungal Contamination in Public Buildings: Health Effects and Investigation Methods", Federal-Provincial Committee on Environmental and Occupational Health, 2004 (referred to as the "Health Canada Guide").
- "Indoor Air Quality in Office Buildings: A Technical Guide", Report of the Federal-Provincial Advisory Committee on Environmental and Occupational Health, 1995. (referred to as the "IAQ Guide").
- "Bioaerosols: Assessment and Control", American Conference of Governmental Industrial Hygienists (ACGIH), 1999 (referred to as the ACGIH Report).

2.6 OZONE-DEPLETING SUBSTANCES

Chlorofluorocarbons (CFCs) and other ODSs are often found in refrigeration units associated with air-conditioning or other refrigeration equipment. In September 1987, forty-seven countries agreed to the Montreal Protocol on Substances that Deplete the Ozone Layer. Disposal of ODSs are regulated in the Yukon by the Yukon Government's 'Special Waste Regulations' (2010) and the *Federal Halocarbon Regulations*, 2003 (FHR 2003).

The presence of ODSs and equipment containing these materials was assessed through visual means.

2.7 SILICA

Silica, also referred to as free crystalline silica, is found in concrete, cement, mortar, ceramic wall and floor tiles, stucco finishes and acoustic ceiling tiles. Prolonged exposure to, and inhalation of free crystalline silica, may result in respiratory disease known as silicosis, which is characterized by progressive fibrosis of the inner lung tissue and marked shortness of breath or impaired lung function.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Assessment Limitations
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Exposure to silica dust is governed by the WCB, with applicable exposure limits indicated in the current version of the YT OHS Reg., depending on the type of silica to be considered (quartz, cristobalite or tridymite).

The presence of silica was assessed through visual means.

3.0 ASSESSMENT LIMITATIONS

This report reflects the observations made within accessed areas of the subject buildings and the results of analyses performed on specific materials sampled during the assessment. Analytical results reflect the sampled materials at the specific sample locations.

Sampling was conducted pertaining to suspected ACMs and suspected LCPs only. The assessment for the presence of other hazardous building materials was visual in nature, and was conducted pertaining to readily visible surfaces within accessible spaces only. Concealed spaces were inspected via existing access panels, where present. Interior and exterior finishes, solid ceilings, walls, flooring and structural elements were not removed to access concealed areas. Inspection ports were made in various places where the presence of hazardous building materials was suspected behind solid finishes.

Due to limitations on the agreed to scope of work for this project as well as physical limitations in accessing concealed areas as well as limitations associated with working in occupied/operational spaces, there are specific limitations to the information that can be provided to each hazardous building material considered in this assessment, as outlined in the following sub-sections.

3.1 ASBESTOS

Suspected ACMs that were not sampled included, but were not limited to, the following (where present, based on building construction or as otherwise noted):

- Roofing materials covered in snow or unsafe to access
- Sub-grade materials
- Interior components of mechanical equipment (e.g., inner linings or gaskets in boilers)
- Interior components of heating, ventilation and air conditioning (HVAC) units
- Heat protection materials inside mechanical installations (e.g., gaskets) and light fixtures (e.g., paper backing in sealed incandescent fixtures)
- Flooring material concealed beneath ceramic tile, brickwork, hardwood flooring, and/or concealed beneath existing sub-floors
- Drywall and/or wall plaster and associated finish materials concealed behind new and/or additional walls or ceilings
- Woven tape inside duct connection joints or inner ducting insulation
- Materials within wall cavities, hard ceiling cavities or crawlspaces
- Insulation materials inside fire doors

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Assessment Limitations
November 3, 2016

If encountered during renovation, demolition or other activities, any suspected ACMs not identified within this report should be presumed to contain asbestos and handled as such until otherwise proven, through analytical testing.

3.2 LEAD

Assessment for the presence of lead or lead-containing materials was visual in nature, and was conducted pertaining to readily visible surfaces within accessible spaces of the subject buildings only. The presence of lead or lead-containing materials in inaccessible areas not assessed included, but was not limited to: ceiling spaces, wall cavities, crawlspaces, and buried materials.

With respect to paint, samples of suspected LCPs were collected within the subject buildings only from surfaces of major paint applications where visually different paint colours and/or types were identified. Although the surfaces where samples were collected may be covered with more than one coat of paint, the paint samples are described by the surface (visible) colour only.

Attempts were made to represent all layers of paint in the samples collected. As analytical results are referenced to the surface paint colour only, the lead content of all painted surfaces similar to that represented by the surface paint colour will be presumed to be the same, regardless of differing sub surface paints, if any.

3.3 POLYCHLORINATED BIPHENYLS

Due to height restrictions and the risk of electrical shock in handling operational light fixtures, the ballasts present in the fixtures observed within the subject buildings were not removed for comparison to the PCB Guide.

Conclusions and recommendations regarding the presence of PCBs within the subject buildings are based on Stantec's limited observations in combination with information provided by staff or occupants regarding lighting renovations (where requested by Stantec based on observations) and is presented to provide guidance regarding the likelihood that PCB-containing equipment is or is not present within the subject buildings. The exact extent and/or number of fluorescent lamp ballasts containing PCBs, if any, within the subject buildings will not be commented on.

3.4 MERCURY

Visual assessment for the presence of mercury-containing equipment within the subject buildings was conducted in accessible areas only. The presence of mercury or mercury-containing equipment in inaccessible areas includes, but is not limited to: ceiling spaces, wall cavities, and crawlspaces, or as internal parts of HVAC mechanisms.

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

Findings
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3.5 MOULD

Visual assessment for the presence of suspected visible mould and/or suitable conditions for mould growth (e.g., moist and/or water-stained building materials) were conducted in accessed portions of the subject buildings only. The assessment was not intrusive in nature and included visual assessment of exposed surfaces and closer inspection of known problem areas.

The conclusions made in this report provide description(s) of the potential source(s) of moisture within the subject buildings that may have led to suitable conditions for mould growth, only in those cases where potential source(s) of moisture were identified. These conclusions will not necessarily identify all sources of moisture leading to suitable conditions for mould growth within the subject buildings or within the impacted area(s).

This assessment does not constitute a building envelope/building systems assessment for any of the subject buildings, which would include an intrusive investigation to assess the internal condition, potential moisture sources, and expected remaining service life of the various components and systems comprising the envelope of a building.

3.6 OZONE DEPLETING SUBSTANCES

Visual assessment for the presence of ODSs within the subject buildings was conducted in accessible areas only. The presence of ODS-containing equipment in inaccessible areas including, but not limited to, ceiling spaces, wall cavities and crawlspaces, was not assessed. In addition, portable equipment that may contain ODSs (refrigerators, drink coolers, etc.) was not considered as part of this assessment.

3.7 SILICA

Visual assessment for the presence of silica-containing materials within the subject buildings was conducted in accessible areas only. The presence of potential silica-containing materials in inaccessible areas including, but not limited to, ceiling spaces, wall cavities and crawlspaces was not assessed.

4.0 FINDINGS

The results of our assessment are provided on a building-by-building basis in **Appendices B through G**. Each Appendix contains the following (where applicable):

- Separate sections with written summaries of findings pertaining to each hazardous building material, including the following:
 - Information regarding the building, including the reported intent for that particular building (e.g., demolition, renovation or continued operation and maintenance)
 - A listing of suspect materials observed

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

General Recommendations

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- Tables including a summaries of the sample types, locations, and analytical results
- Interpretations of observations and/or sample analytical results.
- Photographs of identified hazardous building materials
- Information pertaining to condition evaluation of identified hazardous building materials
- Building-specific recommendations pertaining to identified hazardous building materials based on the reported intent for that particular building (e.g., demolition, renovation or continued operation and maintenance)
- Floor plan drawings for the subject building, which include locations of the samples collected during this assessment, and locations of identified hazardous building materials (where practical)
- Copies of the Certificates of Analysis for samples analyzed

It should be noted that evaluation of condition of identified ACMs was conducted using terminology and classifications as outlined in the former (repealed) *Public Works and Government Services Canada Asbestos Management Directive* (DP 057, 1997-12-03), and considered the friability of the material (terminology relating to how easily fibres can be released), condition (good, fair and poor) and accessibility of the material.

5.0 GENERAL RECOMMENDATIONS

Building-specific recommendations pertaining to the identified hazardous building materials that require action are provided in **Appendices B through G**. General recommendations pertaining to management of identified hazardous building materials in for continued operations, are provided below.

Please note: Additional testing and/or destructive assessment are likely to be required prior to renovation or demolition work. As part of the planning process, the scope for any renovations (or other work that will disturb building materials and/or finishes) should be reviewed in comparison to the information provided in this report. This review should be conducted by an individual with appropriate asbestos/hazardous building materials management expertise to determine whether additional testing is required, on a project-specific basis.

5.1 ASBESTOS

For continued operations the following should be considered pertaining to identified ACMs:

- An asbestos exposure control plan (also known as an “asbestos management plan” (AMP) or “asbestos operations and management plan”) should be developed and implemented buildings where ACMs are identified or remain. The AMP would serve to compile the available data, results and reports regarding the presence, extent, handling, removal, and disposal of ACMs within the subject building. The AMP would also provide sections for information regarding future sampling and analysis of suspected ACMs, if required, asbestos-abatement projects, if undertaken, and other information regarding the management of asbestos within the subject building.



HAZARDOUS BUILDING MATERIALS ASSESSMENTS

General Recommendations

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- Identified ACMs that remain in the building and are in good condition can be managed in place, upon development and implementation of an AMP.
- Identified ACMs that may be impacted during renovations activities should be removed prior to the onset of those activities, in accordance with the requirements of the Canada Labour Code, the WCB and the current version of the YT OHS Reg. It is expected that this will require the involvement of a qualified, licensed asbestos abatement contractor.
- Should a material suspected to contain asbestos fibres become uncovered during renovation or other activities, all work in the areas that may disturb the material should be stopped. Samples of the suspect material should be submitted for laboratory analysis to determine if asbestos fibres are present. Confirmed asbestos materials should be handled in accordance with applicable guidelines and regulations.
- Suspected ACMs deemed visually similar to the ACMs identified in this report should be considered asbestos-containing and handled as such, unless proven otherwise, through analytical testing.
- Ensure asbestos containing waste is handled, stored, and disposed of in accordance with the requirements of the *Federal Transportation of Dangerous Goods Regulation*, the "*Asbestos Abatement Code of Practice*" (May 2012) and Yukon Environment Special Waste & Solid Waste Regulations document entitled "*Asbestos Disposal*" (2010).
- Asbestos-containing cement pipe may be present below ground – caution should be used if excavation is required.

This report should be added to the AMP and referred to as the current ACM record.

5.2 LEAD

Lead-containing materials and LCPs in good condition do not pose significant hazards to workers for continued operations and maintenance. These materials can be managed in place.

If LCPs or other lead-containing materials are to be disturbed and/or removed during renovation or other activities, ensure compliance with the following:

- The occupational exposure control requirements of the Canada Labour Code and the WCB
- The disposal requirements of *Yukon Environment – Contaminated Sites Regulations* and the *Yukon Government Special Waste Regulations*
- The transportation requirements of the *Federal Transportation of Dangerous Goods Regulation*

Corrective action or remedial work on paint applications containing any concentration of lead should be undertaken in a manner so as to avoid generating fine particulate matter or dust (i.e., avoid sanding). Airborne lead dust or fumes should not exceed the WCB 8-hour Occupational Exposure Limit (OEL) of 0.15 milligram per cubic metre (mg/m³) during the removal of paints and products containing any concentration of lead. This can be achieved by:

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

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- Providing workers with protective clothing and PPE or devices as necessary to protect the worker against the hazards to which the worker may be exposed
- Providing workers with adequate and training in the care and use of clothing, equipment or device before wearing or using it
- Wetting the surface of the materials to prevent dust emissions
- Providing workers with washing facilities with clean water, soap and individual towels to properly wash prior to exiting the work area

5.3 POLYCHLORINATED BIPHENYLS

For continued operations and maintenance, fluorescent lamp ballasts that may contain PCBs can be managed in place, where these items are operating and in good condition. No further action is currently required until 2025, when PCB-containing items will require removal and disposal.

As fluorescent lamp ballasts may contain PCBs, if these items are removed from service, they should be assessed in reference to the PCB Guide.

If PCB-containing items are identified and require removal, they should be handled, transported, stored and disposed of according to the *Federal Transportation of Dangerous Goods Regulation* and the *PCB Regulations (SOR/2008-273)*.

5.4 MERCURY

For continued operations and maintenance, identified mercury-containing materials can be managed in place. Mercury vapour within light fixtures and/or liquid mercury in thermostat switches or thermometers pose no risk to workers or occupants provided the mercury containers remain intact and undisturbed. No further action is currently required.

For either renovation or demolition, if mercury-containing materials (e.g., thermostats, fluorescent light bulbs, HID lighting) are to be removed from service, ensure all mercury waste is handled, stored and disposed of in accordance with the requirements of the requirements of the Yukon Government *Special Waste Regulations* and the *Transportation of Dangerous Goods Regulation*.

5.5 MOULD

While there are few definitive guidelines on the interpretation of laboratory results for mould analysis, documents published by Health Canada, Ontario Ministry of Health, American Industrial Hygiene Association (AIHA), American Conference of Governmental Industrial Hygienists (ACGIH) and others, provide guidance for interpreting the results of mould investigations. The *Health Canada Guide* states that:

"Identifiable promoters of fungal growth require correction, and any visible fungi require removal"

HAZARDOUS BUILDING MATERIALS ASSESSMENTS

General Recommendations
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In general, mould-impacted building materials should be removed and/or cleaned. Porous materials such as fabrics, paper-faced gypsum boards and such should be removed, while semi-porous (e.g. wood framing, wood sheathing) or non-porous (e.g. metal, glass) materials can typically be cleaned. Such removal and/or cleaning should be conducted by appropriately trained personnel (likely specialized contractors, depending on the scope/extent of removal required) and in accordance with accepted guidelines and procedures for such work (e.g. those indicated in CCA 82).

Where moisture-impacted building materials are present with no suspect mould currently observed, such materials can be monitored to determine whether the moisture staining is current or historical. If current, measures should be taken to correct the source of moisture, and the moist materials should likely be removed (or cleaned, where cleaning is possible, per above).

As the most controllable promoter of fungal growth is moisture, buildings that are to continue to be operated and maintained should be managed to minimize moisture ingress or moisture impacts to building materials that are not intended to be wetted.

If significant mould contamination is identified in concealed locations or is encountered due to unwanted moisture-intrusion events (e.g. floods, leaks), an experienced mould abatement contractor and a health and safety professional (e.g. consultant) may be required to assist with removal in accordance with applicable guidelines and standards for such work.

5.6 OZONE DEPLETING SUBSTANCES

Suspect ODS-containing equipment can be managed in place and must be serviced by licensed refrigeration technicians (as defined in the FHR 2003).

When refrigeration equipment that is suspect or confirmed ODS-containing is decommissioned, it should be emptied and inspected by licensed refrigeration technician (as defined in the FHR 2003).

If ODS-containing equipment in buildings to be removed for disposal, ODSs must be handled, recycled, stored, and/or disposed of in accordance with the requirements of with the requirements of the *Yukon's Ozone Depleting Substances (ODS) Regulations* and the FHR 2003.

5.7 SILICA

For continued operations and maintenance, identified silica-containing materials can be managed in place.

For renovation or demolition activities, if silica-containing materials are to be disturbed, ensure dust control measures are employed such that airborne silica dust concentrations do not exceed the applicable exposure limits indicated in the current version of the YT OHS Reg. This would include, but not be limited to, the following:

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- Providing workers with respiratory protection
- Wetting the surface of the materials to prevent dust emissions
- Providing workers with facilities to properly wash prior to exiting the work area
- Providing dust control to mitigate the potential for demolition dust to escape from the work area into public and/or adjacent areas

6.0 CLOSURE

This report has been prepared by Stantec Consulting Ltd. for the sole benefit of Public Works and Government Services Canada and the Royal Canadian Mounted Police. Any use that a third party makes of this report, or any reliance on decisions to be made based on it, is the responsibility of such third parties. Stantec Consulting Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The conclusions presented represent the best judgment of the assessor based on current environmental, health and safety standards and the site conditions observed on the dates cited within this report. This report is based on, and limited by, circumstances and conditions stated herein, and on information available at the time of preparation of the report. Due to the limited nature of the investigation and the limited data available, Stantec Consulting Ltd. cannot warrant against undiscovered environmental, health and/or safety liabilities. It is possible that additional, concealed hazardous materials may become evident during renovation and/or demolition activities within the subject buildings.

If any conditions become apparent that differ significantly from our understanding of conditions as presented in this report, we request that we be notified immediately to reassess the conclusions provided herein.

We trust that the report meets your current requirements. Should you have any questions or concerns regarding the above, please do not hesitate to contact the undersigned.

Respectfully submitted,

STANTEC CONSULTING LTD.



Kim Wiese Dipl. Tech.
Environmental Technologist

Reviewed by:



Sean Brigden, B.Sc., P.B.Dipl., CRSP
Project Manager

KW/SB/tt



Appendix A

Building List

Appendix	Building Name	Building Number	Year of Construction	Building Area (square metres)
B	Residence	17	1994	171
C	Residence	23	1994	171
D	Old Detachment	823223	1957	300
E	Garage	823235	2001	84
F	Main Detachment	823236	1995	334
G	Residence	823256	1993	138

Appendix B
Findings and Recommendations
– Building 17: Residence

B-4.0 FINDINGS – BUILDING 823238 (HOUSE #17) RESIDENCE

Building 823238 (House #17) Residence was reportedly constructed in 1994.

The results of the assessment for each of the considered hazardous materials within the Residence are provided in the following sub-sections.

Floor plan drawings for Building 823238 (House #17) Residence, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following area was not accessed, for the reason indicated:

- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

B-4.1 Asbestos

Given the reported construction date of Building (House #4) Residence (1992), limited ACMs were anticipated to be present. As a measure of diligence, and for confirmatory purposes, Stantec identified and sampled various materials that would be suspected ACMs if present in buildings of older vintage, including the following:

- Grey penetration putty
- Drywall joint compound
- White ceiling texture coat
- 6"x6" pattern cream sheet flooring
- Cream sheet flooring

Thirteen (13) samples of the above-noted suspected ACMs were collected and submitted to EMSL for analysis of asbestos content and nature.

A summary of the sample types, locations and analytical results is presented in Table B-4.1.1, below. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are attached at the end of this Appendix.

Hazardous Building Materials Assessments

RCMP Detachment, Teslin, YT

Final Report

Appendix B: Findings and Recommendations – Building 823238 (House #17) Residence

**Table B-4.1.1: Suspected ACM Sample Collection and Analysis Summary
Building 823238 (House #17) Residence, Teslin, YT**

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
17-PP-01A	Grey penetration putty	Penetrations around exterior	None detected
17-PP-01B	Grey penetration putty	Penetrations around exterior	None detected
17-PP-01C	Grey penetration putty	Penetrations around exterior	None detected
17-DJC-01A	Drywall joint compound	Main floor closet	None detected
17-DJC-01B	Drywall joint compound	Main floor front bedroom closet	None detected
17-DJC-01C	Drywall joint compound	Basement main room	None detected
17-DJC-01D	Drywall joint compound	Basement front room	None detected
17-DJC-01E	Drywall joint compound	Basement front room	None detected
17-CTC-01A	White ceiling texture coat	Main floor front bedroom	None detected
17-CTC-01B	White ceiling texture coat	Main floor bedroom by front door	None detected
17-CTC-01C	White ceiling texture coat	Main floor living room	None detected
17-SF-01	6"x6" pattern cream sheet flooring	Ensuite bathroom	None detected
17-SF-02	Crème sheet flooring	Basement front room	None detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of suspected ACM sample analytical results, no ACMs were identified.

B-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes

With respect to paint, three (3) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table B-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table B-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823238 (House #17) Residence, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
17-LP-01	Basement interior walls	Green	<90	No
17-LP-02	Throughout interior walls	Cream	<210	No
17-LP-03	Exterior on steps	Grey	<140	No

Based on our observations and on our interpretations of suspected LCP sample analytical results, no LCPs were identified.

B-4.3 Polychlorinated Biphenyls

Based on the construction date of the building (1992), PCBs are not anticipated to be present.

B-4.4 Mercury

Suspected mercury-containing equipment was not observed.

B-4.5 Mould

Suspect mould or moisture-impacted building materials were not observed at the time of the assessment.

B-4.6 Ozone-Depleting Substances

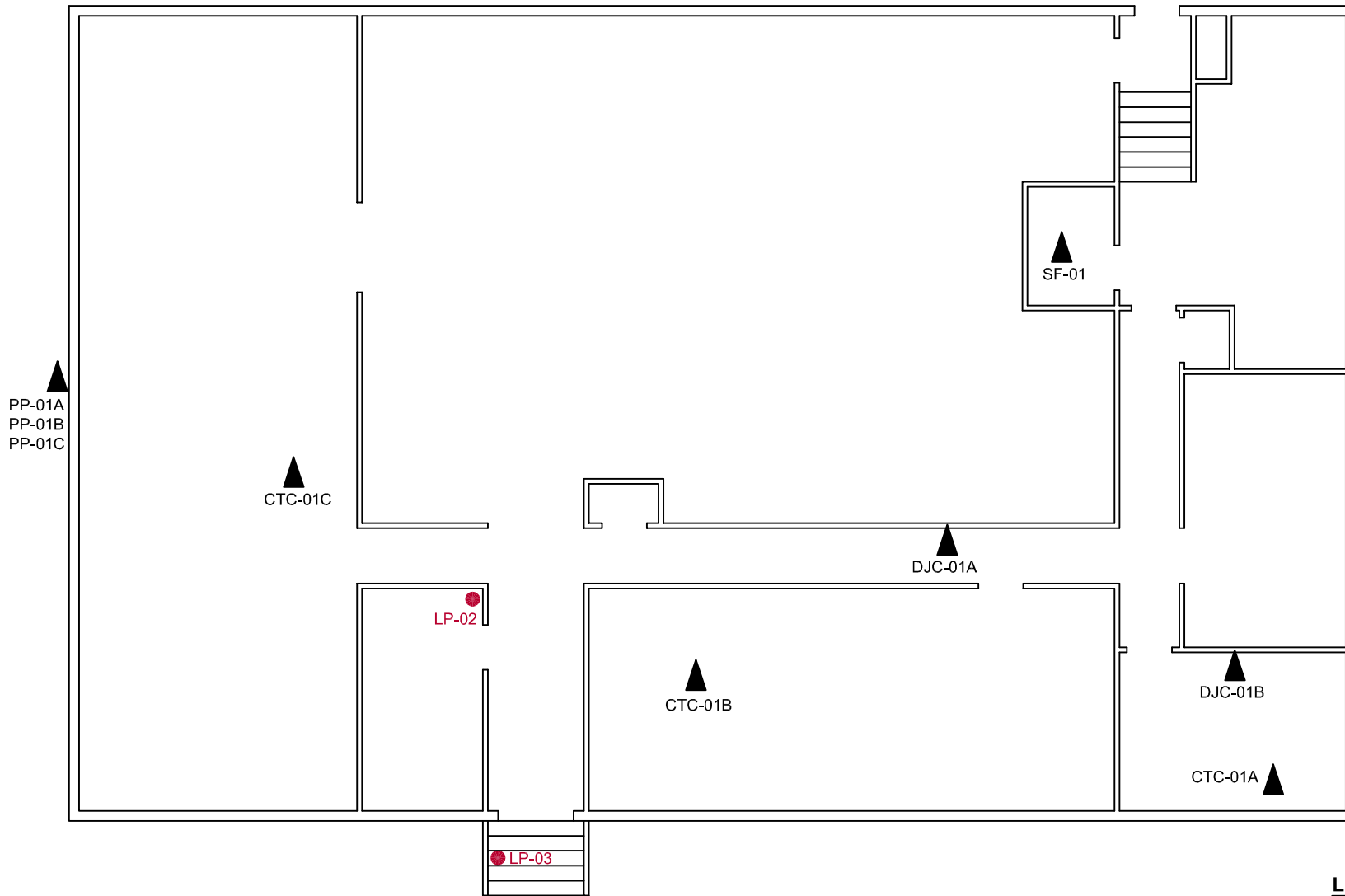
Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

B-4.7 Silica

Silica may be present in concrete in the foundation/floors.

B-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

Identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.




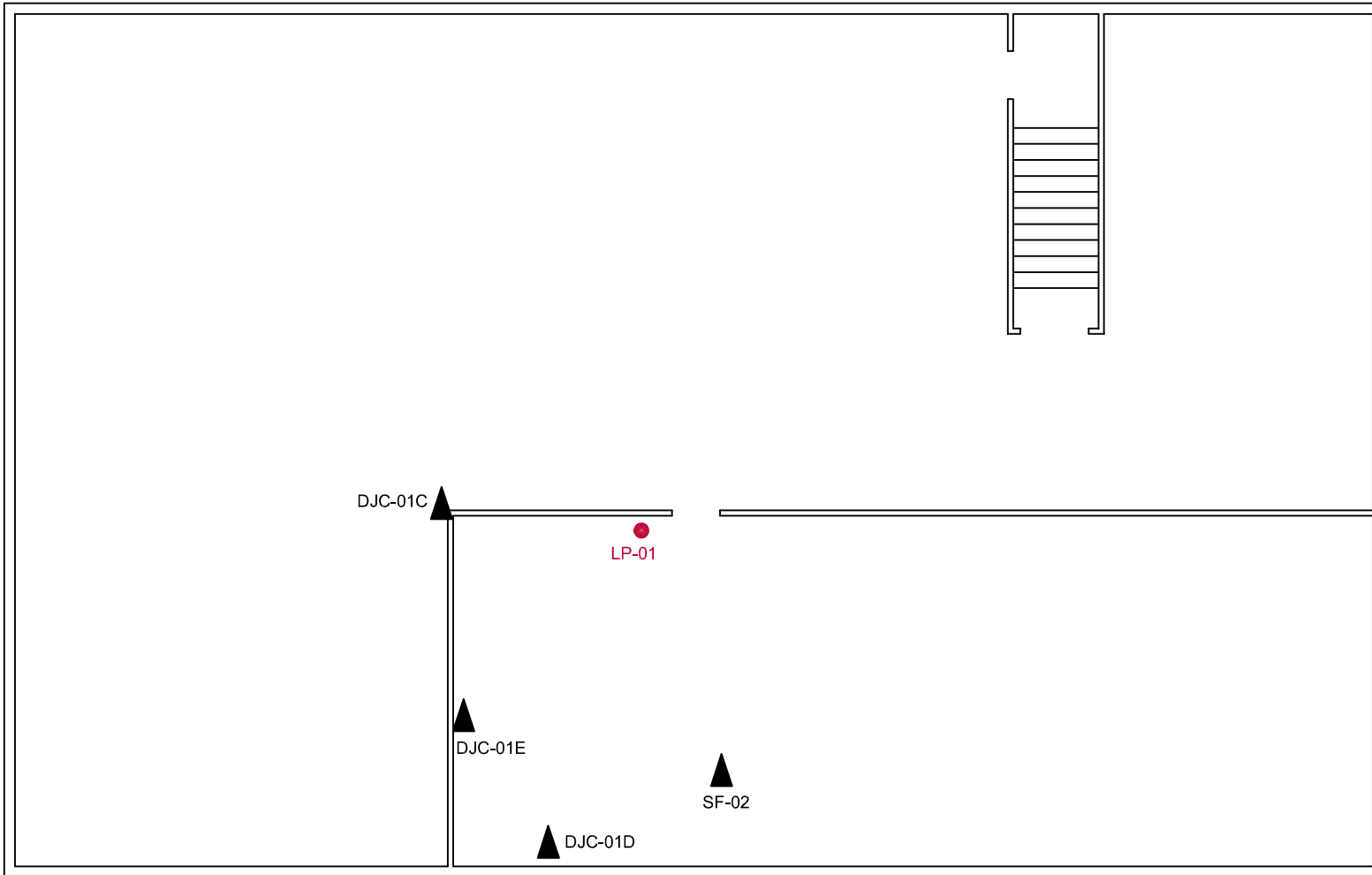
**BUILDING 823238 (HOUSE #17): RESIDENCE
MAIN FLOOR**

LEGEND

-  BULK SAMPLE
-  PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p>B-1</p>	
	Scale: N.T.S.		
<p>Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA</p>	Date: 15/03/19	<p>App'd By: TW</p>	
	Dwn. By: CD _{VM} SL2015030193		



**BUILDING 823238 (HOUSE #17): RESIDENCE
BASEMENT**

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250,400	<p>Dwg.:</p> <p>B-2</p>	
	Scale: N.T.S.		
	Date: 15/04/01		
	Dwn. By: CD _{VM/DM} ^{SL2015040016}		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	App'd By: TW		



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

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Collected:
Received: 3/11/2015
Analyzed: 3/16/2015
Proj: 123220250-400.100

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 17-PP-01A **Lab Sample ID:** 551502378-0001

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 17-PP-01B **Lab Sample ID:** 551502378-0002

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 17-PP-01C **Lab Sample ID:** 551502378-0003

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 17--DJC-01A **Lab Sample ID:** 551502378-0004

Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR CLOSET

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17--DJC-01B **Lab Sample ID:** 551502378-0005

Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR FRONT BEDROOM/CLOSET

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17--DJC-01C **Lab Sample ID:** 551502378-0006

Sample Description: DRYWALL JOINT COMPOUND BASEMENT MAIN ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17--DJC-01D **Lab Sample ID:** 551502378-0007

Sample Description: DRYWALL JOINT COMPOUND BASEMENT FRONT ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 17--DJC-01E **Lab Sample ID:** 551502378-0008

Sample Description: DRYWALL JOINT COMPOUND BASEMENT FRONT ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17-CTC-01A **Lab Sample ID:** 551502378-0009

Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR FRONT/BEDROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17-CTC-01B **Lab Sample ID:** 551502378-0010

Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR BEDROOM BY/FRONT DOOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17-CTC-01C **Lab Sample ID:** 551502378-0011

Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR LIVING ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 17-SF-01 **Lab Sample ID:** 551502378-0012

Sample Description: 6X6" CRÈME FLOOR TILE ENSUITE BATHROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Beige	0.0%	100%	None Detected	

Client Sample ID: 17-SF-02 **Lab Sample ID:** 551502378-0013

Sample Description: CRÈME SHEET FLOORING BASEMENT FRONT ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Beige	0.0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Analyst(s):

Arabee Sathiaseelan PLM (3)
PLM Grav. Reduction (4)
John Biesiadecki PLM (5)
Nicole Dimou PLM Grav. Reduction (1)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 03/16/2015 18:15:24

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EMSL Canada Or	551502408
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CustomerPO:	123220250-400
ProjectID:	

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Stantec Consulting, Ltd.
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Burnaby, BC V5H 0C6

Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
17-LP-01 Site: BASEMENT INTERIOR Desc: GREEN	551502408-0001	3/16/2015		<90 ppm
17-LP-02 Site: THROUGHOUT Desc: CRÉME	551502408-0002	3/16/2015		<210 ppm
17-LP-03 Site: EXTERIOR ON STEPS Desc: GREY	551502408-0003	3/16/2015		<140 ppm

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

Appendix C
Findings and Recommendations
– Building 23: Residence

C-4.0 FINDINGS – BUILDING 823237 (HOUSE # 23) RESIDENCE

Building 823237 (House # 23) Residence was reportedly constructed in 1994.

The results of the assessment for each of the considered hazardous materials within the Residence are provided in the following sub-sections.

Floor plan drawings for Building 823237 (House # 23) Residence, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following area was not accessed, for the reason indicated:

- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

C-4.1 Asbestos

Given the reported construction date of Building 823237 (House # 23) Residence (1994), limited ACMs were anticipated to be present. As a measure of diligence, and for confirmatory purposes, Stantec identified and sampled various materials that would be suspected ACMs if present in buildings of older vintage, including the following:

- Grey penetration putty
- Drywall joint compound
- White ceiling texture coat
- 6"x6" pattern crème sheet flooring

Twelve (12) samples of the above-noted suspected ACMs were collected and submitted to EMSL for analysis of asbestos content and nature.

A summary of the sample types, locations and analytical results is presented in Table C-4.1.1, below. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are attached at the end of this Appendix.

**Table C-4.1.1: Suspected ACM Sample Collection and Analysis Summary
Building 823237 (House # 23) Residence, Teslin, YT**

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
23-PP-01A	Grey penetration putty	Penetrations around exterior	None detected
23-PP-01B	Grey penetration putty	Penetrations around exterior	None detected
23-PP-01C	Grey penetration putty	Penetrations around exterior	None detected
23-DJC-01A	Drywall joint compound	Basement by stairs	None detected
23-DJC-01B	Drywall joint compound	Basement under stairs	None detected
23-DJC-01C	Drywall joint compound	Basement by stair landing	None detected
23-DJC-01D	Drywall joint compound	Main floor bathroom	None detected
23-DJC-01E	Drywall joint compound	Main floor closet	None detected
23-CTC-01A	White ceiling texture coat	Main floor front foyer	None detected
23-CTC-01B	White ceiling texture coat	Main floor kitchen	None detected
23-CTC-01C	White ceiling texture coat	Main floor hallway	None detected
23-SF-01	6"x6" pattern crème sheet flooring	Basement landing	None detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of suspected ACM sample analytical results, no ACMs were identified.

C-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes

With respect to paint, three (3) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table C-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table C-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823237 (House # 23) Residence, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
23-LP-01	Throughout interior walls	Cream	<90	No
23-LP-02	Basement floor	Grey	<97	No
23-LP-03	Exterior deck and stairs	White	<130	No

Based on our observations and on our interpretations of suspected LCP sample analytical results, no LCPs were identified

C-4.3 Polychlorinated Biphenyls

Based on the construction date of the building (1992), PCBs are not anticipated to be present.

C-4.4 Mercury

Suspected mercury-containing equipment was not observed.

C-4.5 Mould

Suspect mould or moisture-impacted building materials were not observed at the time of the assessment.

C-4.6 Ozone-Depleting Substances

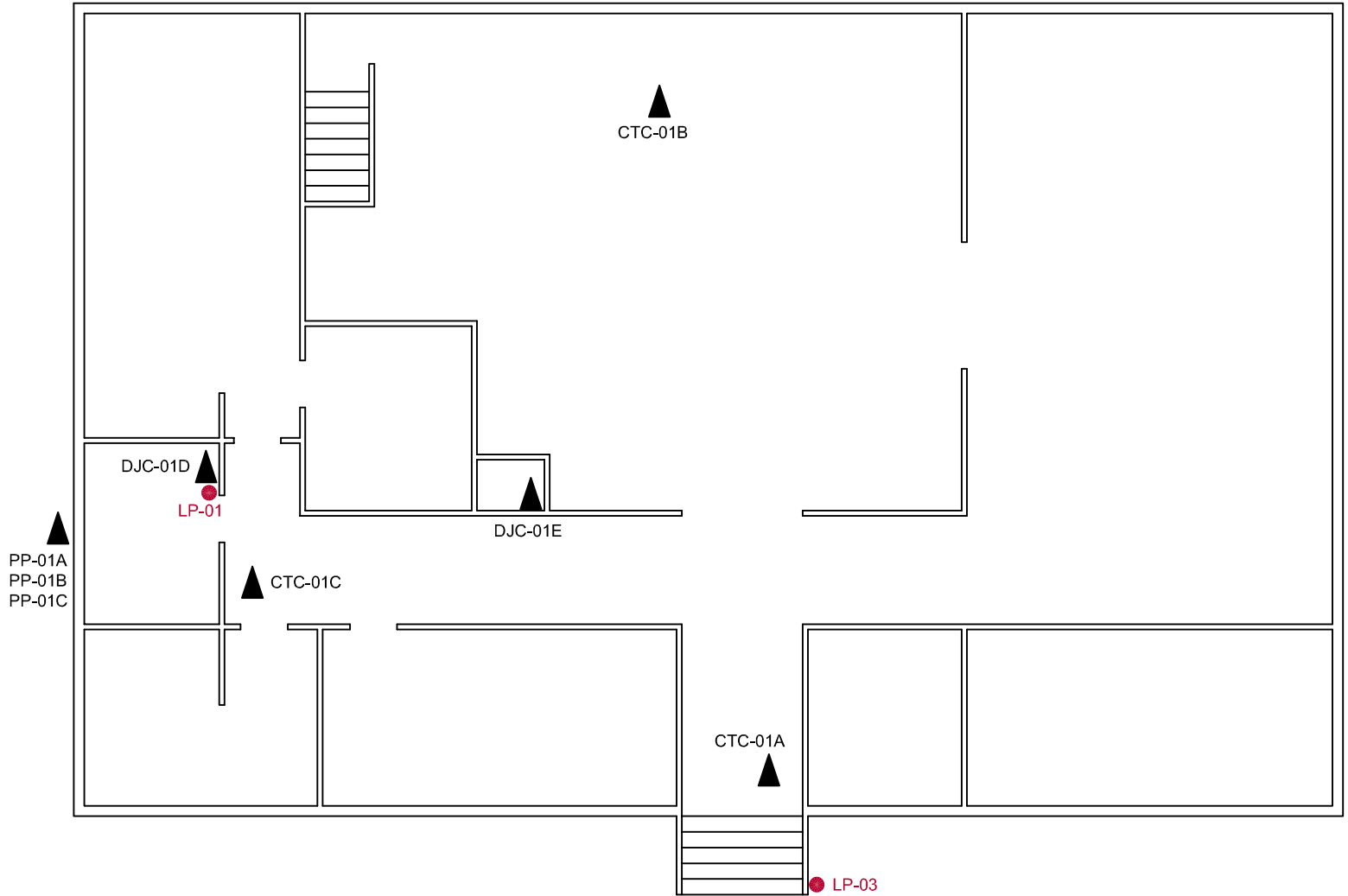
Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

C-4.7 Silica

Silica may be present in concrete in the foundation/floors.

C-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

Identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.



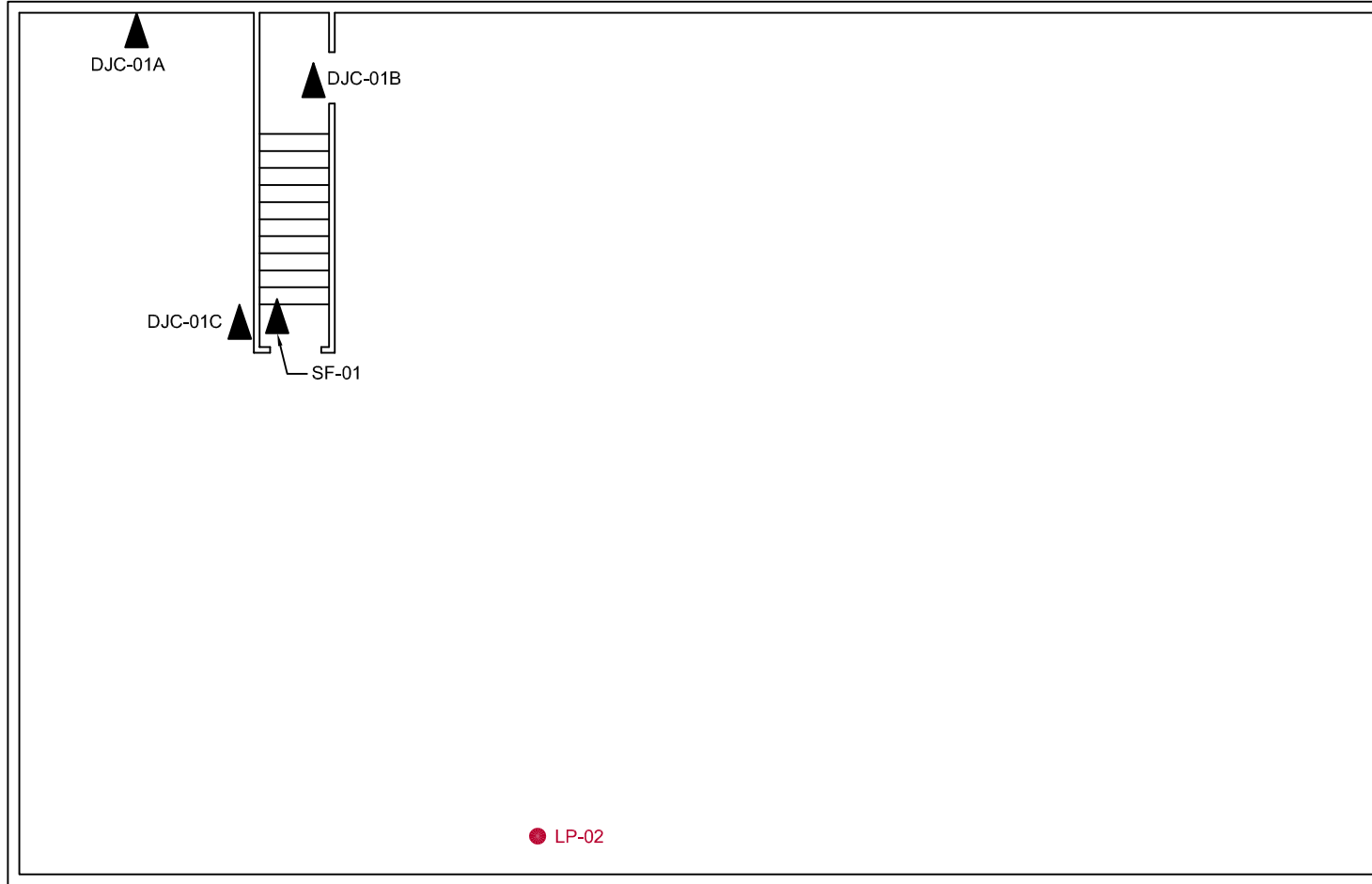
**BUILDING 823237 (HOUSE #23): RESIDENCE
MAIN FLOOR**

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p style="font-size: 2em; font-weight: bold;">C-1</p>	
	Scale: N.T.S.		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	Date: 15/03/19	<p>App'd By: TW</p>	
	Dwn. By: CD _{VM} SL2015030195		



BUILDING 823237 (HOUSE #23): RESIDENCE BASEMENT

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p style="font-size: 2em; font-weight: bold;">C-2</p>
	Scale: N.T.S.	
	Date: 15/03/19	
	Dwn. By: CD _{VM} SL2015030196	
App'd By: TW	Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	



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Customer PO: 123220250-400
Project ID:

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Phone: (604) 412-3004
Fax:
Collected:
Received: 3/11/2015
Analyzed: 3/16/2015

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 23-PP-01A **Lab Sample ID:** 551502378-0014

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 23-PP-01B **Lab Sample ID:** 551502378-0015

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Gray	0%	100%	None Detected	

Client Sample ID: 23-PP-01C **Lab Sample ID:** 551502378-0016

Sample Description: GREY PENETRATION PUTTY PENETRATIONS AROUND/EXTERIOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Gray	0%	100%	None Detected	

Client Sample ID: 23-DJC-01A **Lab Sample ID:** 551502378-0017

Sample Description: DRYWALL JOINT COMPOUND BASEMENT BY STAIRS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-DJC-01B **Lab Sample ID:** 551502378-0018

Sample Description: DRYWALL JOINT COMPOUND BASEMENT UNDER STAIRS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-DJC-01C **Lab Sample ID:** 551502378-0019

Sample Description: DRYWALL JOINT COMPOUND BASEMENT BY STAIR LANDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-DJC-01D **Lab Sample ID:** 551502378-0020

Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR BATHROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 23-DJC-01E **Lab Sample ID:** 551502378-0021
Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR CLOSET

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-CTC-01A **Lab Sample ID:** 551502378-0022
Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR FRONT FOYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-CTC-01B **Lab Sample ID:** 551502378-0023
Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-CTC-01C **Lab Sample ID:** 551502378-0024
Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR HALLWAY

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 23-SF-01 **Lab Sample ID:** 551502378-0025
Sample Description: 6X6" CRÈME SHEET FLOORING BASEMENT LANDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/Beige	0.0%	100%	None Detected	

Analyst(s):
Arabee Sathiseelan PLM (5)
PLM Grav. Reduction (2)
John Biesiadecki PLM (5)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.



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Phone: (604) 412-3004
Fax:
Received: 03/11/15 11:30 AM
Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
23-LP-01 Site: THROUGHOUT Desc: CRÈME	551502408-0004	3/16/2015		<90 ppm
23-LP-02 Site: BASEMENT FLOOR Desc: GREY	551502408-0005	3/16/2015		<97 ppm
23-LP-03 Site: EXTERIOR ON DECK AND STAIRS Desc: WHITE	551502408-0006	3/16/2015		<130 ppm

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

Lisa Podzyhun
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

Appendix D
Findings and Recommendations
– Building 823223: Old Detachment

D-4.0 FINDINGS – BUILDING 823223 OLD DETACHEMENT

Building 823223 Old Detachment was reportedly constructed in 1957.

The results of the assessment for each of the considered hazardous materials within the Old Detachment are provided in the following sub-sections.

Floor plan drawings for Building 823223 Old Detachment, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following areas were not accessed, for the reasons indicated:

- Garage on south side of building (Lock frozen, unable to open)
- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

D-4.1 Asbestos

Stantec identified and sampled various suspected ACMs, including the following:

- Various types of fiber board
- White ceiling texture coat
- Drywall joint compound
- Brown duct mastic
- White building paper
- White exterior penetration caulking
- White window caulking
- Roofing material
- Cement panel
- Various types and patterns of sheet flooring
- 12" x 12" brown wood-like floor tile (and associated mastic)

Forty-two (44) samples of the above-noted suspected ACMs were collected and submitted to EMSL for analysis of asbestos content and nature.

A summary of the sample types, locations and analytical results is presented in Table D-4.1.1, below. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are attached at the end of this Appendix.

It should be noted that bulk samples of roofing materials and vinyl floor tiles were further separated into layers during laboratory analysis.

Hazardous Building Materials Assessments

RCMP Detachment, Teslin, YT

Final Report

Appendix D: Findings and Recommendations – Building 823223 Old Detachment

**Table D-4.1.1: Suspected ACM Sample Collection and Analysis Summary
Building 823223 Old Detachment, Teslin, YT**

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
823223-FB-01A	Cream fiber board	Attic	None Detected
823223-FB-01B	Cream fiber board	Attic	None Detected
823223-FB-01C	Cream fiber board	Attic	None Detected
823223-FB-02A	Brown fiber board	Attic	None Detected
823223-FB-02B	Brown fiber board	Attic	None Detected
823223-FB-02C	Brown fiber board	Attic	None Detected
823223-CTC-01A	White ceiling texture coat	Kitchen	None Detected
823223-CTC-01B	White ceiling texture coat	Kitchen	None Detected
823223-CTC-01C	White ceiling texture coat	Kitchen	None Detected
823223-CTC-02A	White ceiling texture coat	Main floor southeast room	None Detected
823223-CTC-02B	White ceiling texture coat	Main floor stairwell by garage entrance	None Detected
823223-CTC-02C	White ceiling texture coat	Main floor front foyer	None Detected
823223-CTC-02D	White ceiling texture coat	Main floor room north of front foyer	None Detected
823223-CTC-02E	White ceiling texture coat	Main floor stairwell to cells	None Detected
823223-DJC-01A	Drywall joint compound	Main floor front foyer	None Detected
823223-DJC-01B	Drywall joint compound	Main floor front foyer	None Detected
823223-DJC-01C	Drywall joint compound	West stairs to basement	None Detected
823223-DJC-01D	Drywall joint compound	Second floor southwest room	None Detected
823223-DJC-01E	Drywall joint compound	Second floor northwest room	None Detected
823223-DJC-01F	Drywall joint compound	Second floor southeast room	None Detected
823223-DJC-01G	Drywall joint compound	Second floor closet in southwest room	None Detected
823223-DM-01A	Brown duct mastic	Basement northeast room	0.90% Chrysotile
823223-DM-01B	Brown duct mastic	Basement northeast room	Stop Positive (Not Analyzed)
823223-DM-01C	Brown duct mastic	Basement northeast room	Stop Positive (Not Analyzed)
823223-BP-01A	White building paper	Attic	None Detected
823223-BP-01B	White building paper	Attic	None Detected
823223-BP-01C	White building paper	Attic	None Detected
823223-DSC-01A	White caulking	Exterior east side	None Detected

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
823223-DSC-01B	White caulking	Exterior east side	None Detected
823223-DSC-01C	White caulking	Exterior east side	None Detected
823223-WC-01A	White window caulking	Exterior windows	None Detected
823223-WC-01B	White window caulking	Exterior windows	None Detected
823223-WC-01C	White window caulking	Exterior windows	None Detected
823223-RM-01A - Shingle	Roofing material – roof shingle	Roof	None Detected
823223-RM-01A – Tar Paper	Roofing material – tar paper underlay	Roof	None Detected
823223-RM-01B - Shingle	Roofing material – roof shingle	Roof	None Detected
823223-RM-01B – Tar Paper	Roofing material – tar paper underlay	Roof	None Detected
823223-RM-01C - Shingle	Roofing material – roof shingle	Roof	None Detected
823223-RM-01C – Tar Paper	Roofing material – tar paper underlay	Roof	None Detected
823223-CP-01	Cement panel	Exterior siding under first layer of siding	12% Chrysotile
823223-SF-01	Tan sheet flooring with grey dots	Front foyer, central stairwell to basement and stairwell to cells	2.6% Chrysotile
823223-SF-02	Tan sheet flooring with brown and orange dots	Kitchen	None Detected
823223-SF-03	White and grey wood-like sheet flooring	Main floor bathroom floor and walls	None Detected
823223-SF-04	Orange and yellow sheet flooring	Second floor bathroom	21.1% Chrysotile
823223-SF-05	Grey and orange sheet flooring	Under orange and yellow sheet flooring in second floor bathroom	None Detected
823223-SF-06	Black sheet flooring with white smudges	Stairs to basement	None Detected
823223-FT-01	12" x12" brown wood-like floor tile	Main floor closet by stairs to second floor	None Detected
823223-FT-01 mastic	Mastic on 12" x12" brown wood-like floor tile	Main floor closet by stairs to second floor	None Detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of suspected ACM sample analytical results, the materials presented in Table D-4.1.2, below were identified as ACMs.



Hazardous Building Materials Assessments



RCMP Detachment, Teslin, YT

Final Report

Appendix D: Findings and Recommendations – Building 823223 Old Detachment

**Table D-4.1.2: Summary of Identified ACMs
Building 823223 Old Detachment, Teslin, YT**

Identified ACM Description and Condition Information		Photo
Brown duct mastic throughout.		
Content	0.90% Chrysotile	
Friability	Non-friable	
Condition	Good	
Cement panel exterior siding under first layer of siding around the entire perimeter.		
Content	12% Chrysotile	
Friability	Non-friable	
Condition	Good	

Identified ACM Description and Condition Information		Photo
<p>Tan sheet flooring with grey dots in the front foyer, central stairwell to basement and stairwell to cells.</p>		
Content	2.6% Chrysotile	
Friability	Non-friable in situ, friable during removal	
Condition	Good	
<p>Orange and yellow sheet flooring in second floor bathroom.</p>		
Content	21.1% Chrysotile	
Friability	Non-friable in situ, friable during removal	
Condition	Good	

D-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes
- Electrical equipment (i.e. batteries for emergency lighting/signage).



With respect to paint, eleven (11) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table D-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table D-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823223 Old Detachment, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
823223-LP-01	Interior cement floor	Blue	8,900	Yes
823223-LP-02	Interior walls	White	440	No
823223-LP-03	Interior door trim	Blue	410	No
823223-LP-04	Cement floor in cells	Red	<90	No
823223-LP-05	Interior walls in cells	Cream	110	No
823223-LP-06	Cement floor	Grey	3,700	Yes
823223-LP-07	Basement walls	Yellow	590	No
823223-LP-08	Interior basement walls	Cream	2,500	Yes
823223-LP-09	Exterior deck – over red	Blue	1,500	Yes
823223-LP-10	Exterior siding	White	2,600	Yes
823223-LP-11	Exterior trim	Blue	3,000	Yes

Based on our observations and on our interpretations of suspected LCP sample analytical results, the materials presented in Table D-4.2.2, below were identified as LCPs.

**Table D-4.2.2: Summary of Identified LCPs
Building 823223 Old Detachment, Teslin, YT**

Identified LCP Description	Photo
<p>Blue paint on cement floor on main floor. This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	<p>No photo.</p>
<p>Grey paint on cement floor in interior basement. This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	
<p>Cream paint on interior basement walls. This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	


Hazardous Building Materials Assessments

RCMP Detachment, Teslin, YT

Final Report

Appendix D: Findings and Recommendations – Building 823223 Old Detachment

Identified LCP Description	Photo
<p>Blue paint on exterior deck (over red primer). This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	
<p>White paint on exterior siding. This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	

Identified LCP Description	Photo
<p>Blue paint on exterior trim This paint was observed to be in good condition (not bubbling, flaking or peeling).</p>	

D-4.3 Polychlorinated Biphenyls

Equipment suspected to contain PCBs was not observed at the time of this assessment.


D-4.4 Mercury

One (1) suspected mercury-containing thermometer was observed on the main floor in the southwest room, as indicated on the attached floor plan drawings.

D-4.5 Mould

Mould/moisture damage was observed as summarized in Table D-4.5.1, below.

Table D-4.5.1: Summary of Identified Mould and/or Moisture-Impacted Materials Building 823223 Old Detachment, Teslin, YT

Identified Mould and/or Moisture Impacted Materials Description	Photo
<p>Moisture-impacted drywall was observed throughout the basement. The suspected source of moisture is condensation due to the building not being heated and/or insufficient ventilation/dehumidification.</p>	

D-4.6 Ozone-Depleting Substances

Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

D-4.7 Silica

Silica may be present in concrete observed in various locations throughout.

D-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

In general, identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.

Additional building-specific recommendations to be considered are provided below.

D-5.2 Lead

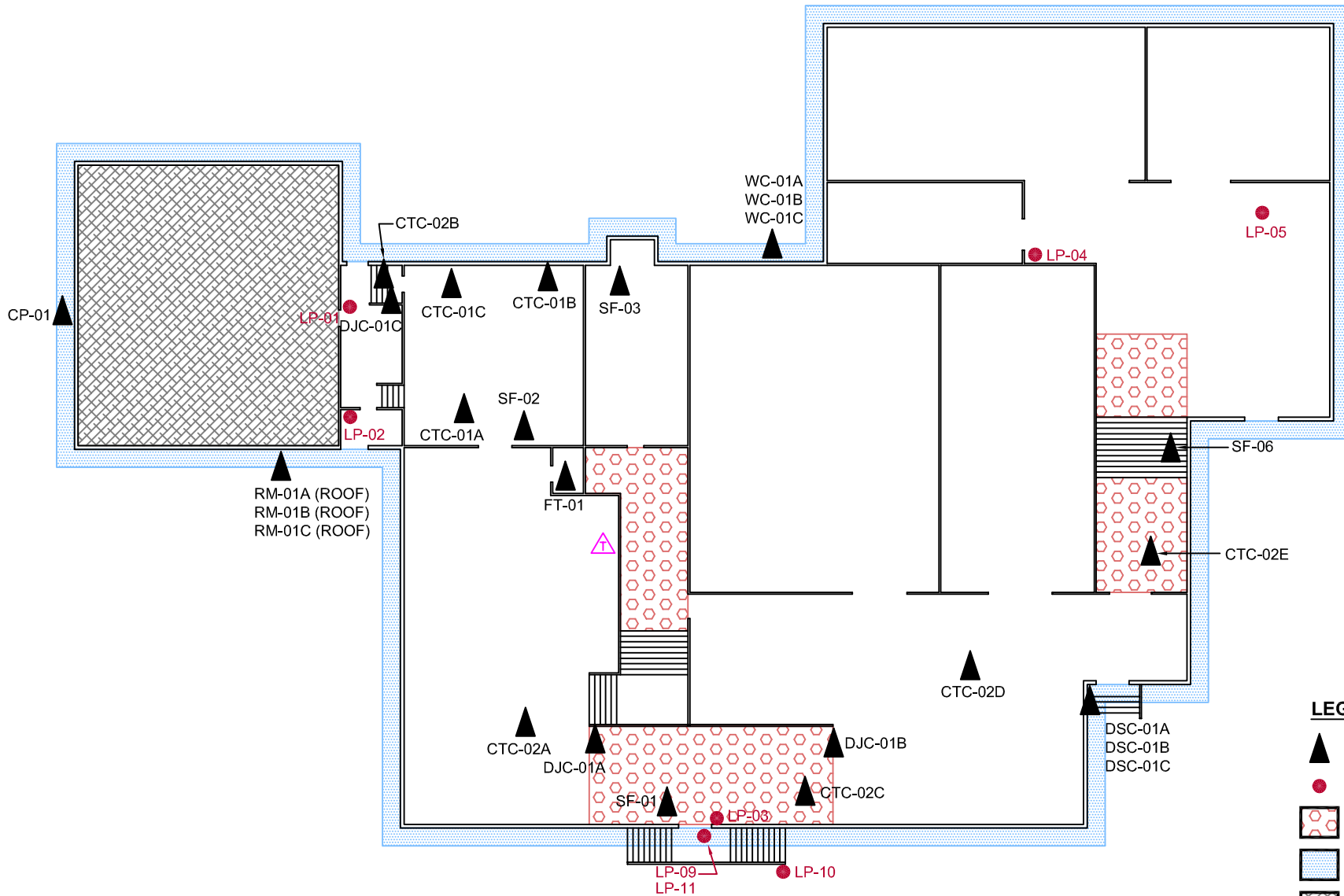
Lead-containing paint observed in poor condition throughout the basement and exterior should be cleaned-up and/or addressed to mitigate potential for additional deterioration and dispersal of lead-containing paint chips/dust. Consideration should be given to re-painting surfaces to mitigate the potential for additional deterioration and hazards associated with the lead-containing paint chips/dust that may be created. If re-painting is completed, appropriate precautions to protect workers and work areas from exposure to lead will be required during painting preparation activities.

Provisions for worker protection and waste disposal related to the above are included in Section 5.0 of the main body of this report.

D-5.5 Mould

Stantec recommends the following course of action within the subject building:

- Drywall materials within the basement that are impacted by moisture and suspect mould (the majority of, if not all drywall, approximately 500 square feet) should be removed accordance with applicable guidelines and accepted standards for such work (e.g., CCA 82). This will likely require the involvement of an experienced mould abatement contractor.
- The source of moisture is likely condensation due to the building not being heated and or insufficient ventilation/dehumidification. If these issues causing condensation are not planned to be addressed then mould and moisture impacted materials should not be replaced as the mould/moisture issues will likely reoccur.

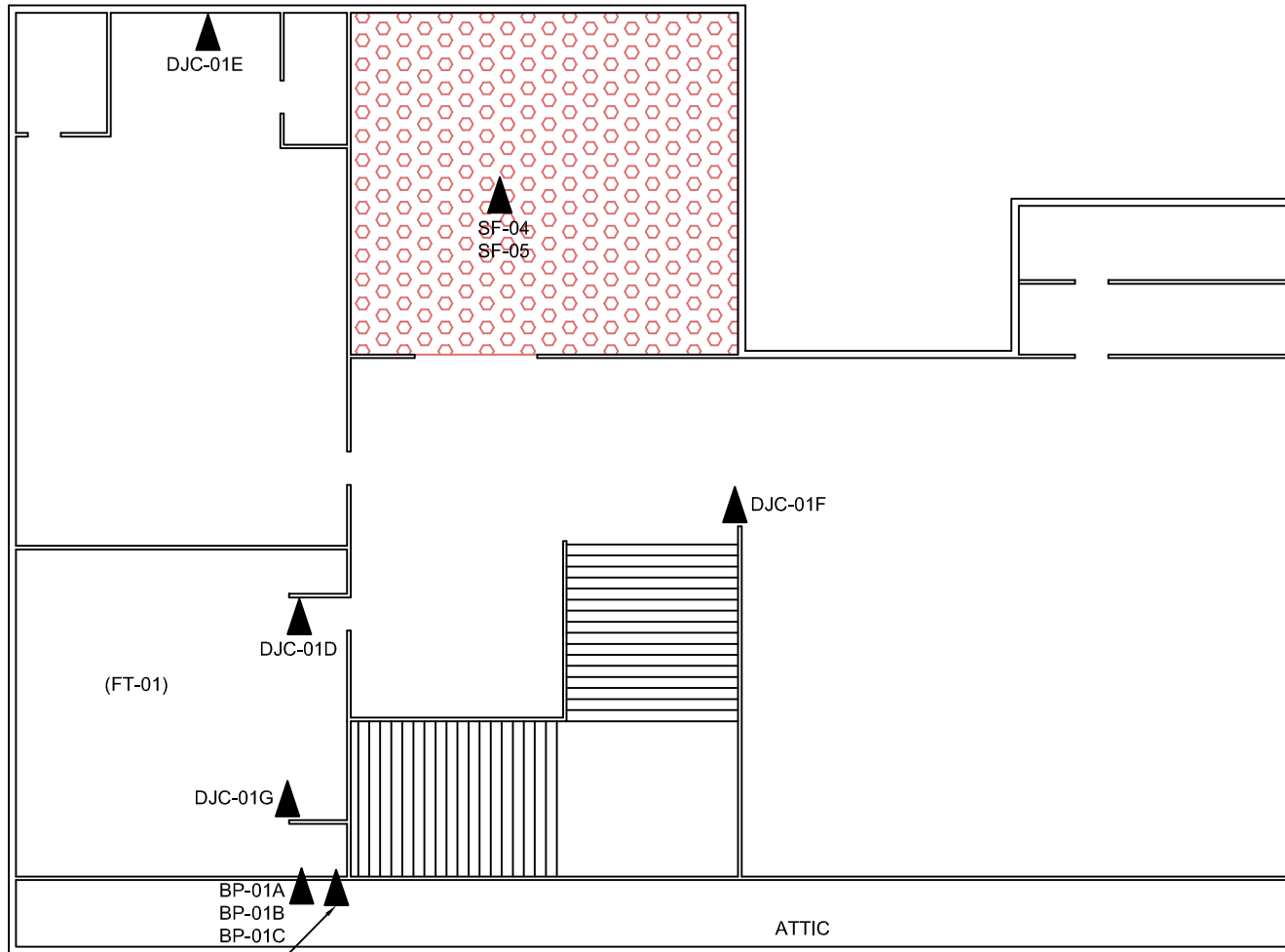


- LEGEND**
- BULK SAMPLE
 - PAINT CHIP SAMPLE
 - ACM SHEET FLOORING
 - ACM CEMENT PANEL
 - NO ACCESS
 - MERCURY-CONTAINING THERMOSTAT

BUILDING 823223: OLD DETACHMENT MAIN FLOOR

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<h2 style="margin: 0;">FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</h2> <p style="margin: 0;">RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<h1 style="margin: 0;">D-1</h1>	
	Scale: N.T.S.		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	Date: 15/04/01		
	Dwn. By: CD <small>SL2015040017</small> VM/DM		
	App'd By: TW		



FB-01A
 FB-01B
 FB-01C
 FB-02A
 FB-02B
 FB-02C

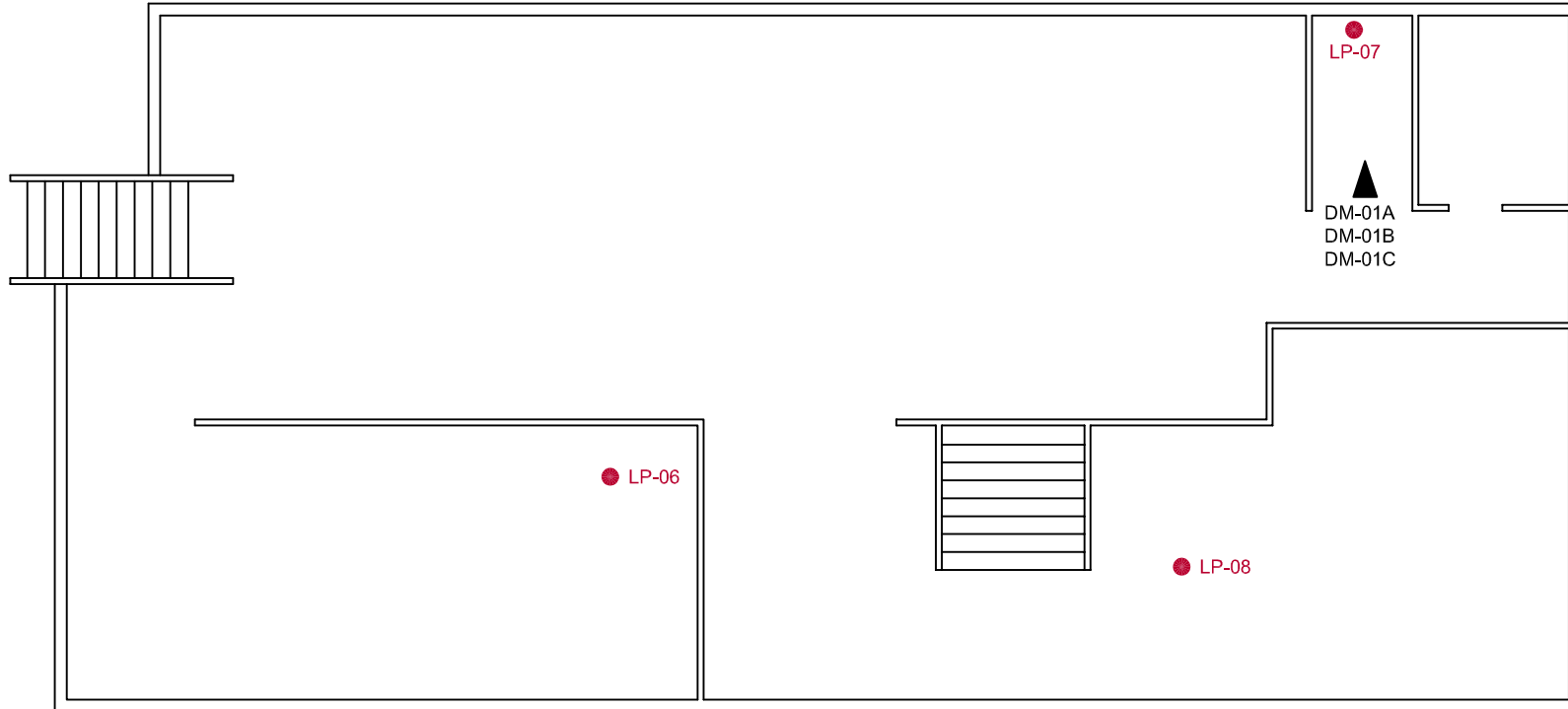
BUILDING 823223: OLD DETACHMENT SECOND FLOOR

LEGEND

- BULK SAMPLE
- ACM SHEET FLOORING

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<h2 style="margin: 0;">FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</h2> <p style="margin: 0;">RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	Dwg.: D-2	
	Scale: N.T.S.		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	Date: 15/04/01		
	Dwn. By: CD <small>SL201504018</small> <small>VM/DM</small>		
App'd By: TW			



**BUILDING 823223: OLD DETACHMENT
BASEMENT**

NOTES: 1. BROWN HVAC DUCT MASTIC THROUGHOUT IS ASBESTOS-CONTAINING.
2. SUSPECT MOULD PRESENT ON WALLS THROUGHOUT BASEMENT.

3. THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

**FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS
AND BULK SAMPLE LOCATIONS**

RCMP YUKON - TESLIN

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project No.:	123220250.400
Scale:	N.T.S.
Date:	15/03/19
Dwn. By:	CD _{VM} SL2015030199
App'd By:	TW

Dwg.:

D-3





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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Attn: Kim Wiese
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6
Phone: (604) 412-3004
Fax:
Collected:
Received: 3/11/2015
Analyzed: 3/16/2015
Proj: 123220250-400.100

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-FB-01A **Lab Sample ID:** 551502378-0026

Sample Description: CRÈME FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Tan	90%	10%	None Detected	

Client Sample ID: 823223-FB-01B **Lab Sample ID:** 551502378-0027

Sample Description: CRÈME FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Tan	90%	10%	None Detected	

Client Sample ID: 823223-FB-01C **Lab Sample ID:** 551502378-0028

Sample Description: CRÈME FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Brown	90%	10%	None Detected	

Client Sample ID: 823223-FB-02A **Lab Sample ID:** 551502378-0029

Sample Description: BROWN FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Brown	90%	10%	None Detected	

Client Sample ID: 823223-FB-02B **Lab Sample ID:** 551502378-0030

Sample Description: BROWN FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Brown	90%	10%	None Detected	

Client Sample ID: 823223-FB-02C **Lab Sample ID:** 551502378-0031

Sample Description: BROWN FIBER BOARD ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Brown/Black	85%	15%	None Detected	

Client Sample ID: 823223-CTC-01A **Lab Sample ID:** 551502378-0032

Sample Description: WHITE CEILING TEXTURE COAT KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	



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Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-CTC-01B **Lab Sample ID:** 551502378-0033
Sample Description: WHITE CEILING TEXTURE COAT KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-CTC-01C **Lab Sample ID:** 551502378-0034
Sample Description: WHITE CEILING TEXTURE COAT KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-CTC-02A **Lab Sample ID:** 551502378-0035
Sample Description: WHITE CEILING TEXTURE COAT/MAIN FLOOR FRONT FOYER AND ROOMS AROUND

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-CTC-02B **Lab Sample ID:** 551502378-0036
Sample Description: WHITE CEILING TEXTURE COAT/MAIN FLOOR FRONT FOYER AND ROOMS AROUND

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-CTC-02C **Lab Sample ID:** 551502378-0037
Sample Description: WHITE CEILING TEXTURE COAT/MAIN FLOOR FRONT FOYER AND ROOMS AROUND

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-CTC-02D **Lab Sample ID:** 551502378-0037A
Sample Description: WHITE CEILING TEXTURE COAT/MAIN FLOOR FRONT FOYER AND ROOMS AROUND

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	Sample not on COC

Client Sample ID: 823223-CTC-02E **Lab Sample ID:** 551502378-0037B
Sample Description: WHITE CEILING TEXTURE COAT/MAIN FLOOR FRONT FOYER AND ROOMS AROUND

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	Sample not on COC

Client Sample ID: 823223-DJC-01A **Lab Sample ID:** 551502378-0038
Sample Description: DRYWALL JOINT COMPOUND/MAIN FLOOR FRONT FOYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	



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Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-DJC-01B **Lab Sample ID:** 551502378-0039
Sample Description: DRYWALL JOINT COMPOUND/MAIN FLOOR FRONT FOYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DJC-01C **Lab Sample ID:** 551502378-0040
Sample Description: DRYWALL JOINT COMPOUND/WEST STAIRS TO BASEMENT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DJC-01D **Lab Sample ID:** 551502378-0041
Sample Description: DRYWALL JOINT COMPOUND/SECOND FLOOR SW RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DJC-01E **Lab Sample ID:** 551502378-0042
Sample Description: DRYWALL JOINT COMPOUND/SECOND FLOOR NW RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DJC-01F **Lab Sample ID:** 551502378-0043
Sample Description: DRYWALL JOINT COMPOUND/SECOND FLOOR SE RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DJC-01G **Lab Sample ID:** 551502378-0044
Sample Description: DRYWALL JOINT COMPOUND/SECOND FLOOR CLOSET IN SW RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823223-DM-01A **Lab Sample ID:** 551502378-0045
Sample Description: BROWN DUCT MASTIC/BASEMENT NE RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Brown	0.0%	99.1%	0.90% Chrysotile	

Client Sample ID: 823223-DM-01B **Lab Sample ID:** 551502378-0046
Sample Description: BROWN DUCT MASTIC/BASEMENT NE RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015					Positive Stop (Not Analyzed)



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Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-DM-01C **Lab Sample ID:** 551502378-0047
Sample Description: BROWN DUCT MASTIC/BASEMENT NE RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015					Positive Stop (Not Analyzed)

Client Sample ID: 823223-BP-01A **Lab Sample ID:** 551502378-0048
Sample Description: WHITE BUILDING PAPER/ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	90%	10%	None Detected	

Client Sample ID: 823223-BP-01B **Lab Sample ID:** 551502378-0049
Sample Description: WHITE BUILDING PAPER/ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	90%	10%	None Detected	

Client Sample ID: 823223-BP-01C **Lab Sample ID:** 551502378-0050
Sample Description: WHITE BUILDING PAPER/ATTIC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	Brown	80%	20%	None Detected	

Client Sample ID: 823223-DSC-01A **Lab Sample ID:** 551502378-0051
Sample Description: WHITE CAULKING EXTERIOR EAST SIDE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White	0.0%	100%	None Detected	

Client Sample ID: 823223-DSC-01B **Lab Sample ID:** 551502378-0052
Sample Description: WHITE CAULKING EXTERIOR EAST SIDE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White	0.0%	100%	None Detected	

Client Sample ID: 823223-DSC-01C **Lab Sample ID:** 551502378-0053
Sample Description: WHITE CAULKING EXTERIOR EAST SIDE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White	0.0%	100%	None Detected	

Client Sample ID: 823223-WC-01A **Lab Sample ID:** 551502378-0054
Sample Description: WHITE WINDOW CAULKING EXTERIOR WINDOWS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White	0.0%	100%	None Detected	



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Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-WC-01B **Lab Sample ID:** 551502378-0055
Sample Description: WHITE WINDOW CAULKING EXTERIOR WINDOWS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/White	0.0%	100%	None Detected	

Client Sample ID: 823223-WC-01C **Lab Sample ID:** 551502378-0056
Sample Description: WHITE WINDOW CAULKING EXTERIOR WINDOWS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01A-Shingle **Lab Sample ID:** 551502378-0057
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/Black/Green	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01A-Tar Paper **Lab Sample ID:** 551502378-0057A
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Black	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01B-Shingle **Lab Sample ID:** 551502378-0058
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/Black/Green	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01B-Tar Paper **Lab Sample ID:** 551502378-0058A
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Black	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01C-Shingle **Lab Sample ID:** 551502378-0059
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/Black/Green	0.0%	100%	None Detected	

Client Sample ID: 823223-RM-01C-Tar Paper **Lab Sample ID:** 551502378-0059A
Sample Description: ROOFING MATERIAL ROOF

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Black	0.0%	100%	None Detected	



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Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-CP-01 **Lab Sample ID:** 551502378-0060

Sample Description: CEMENTAL PANEL EXTERIOR SIDING UNDER FIRST LAYER/OF SIDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	88%	12% Chrysotile	

Client Sample ID: 823223-SF-01 **Lab Sample ID:** 551502378-0061

Sample Description: TAN SHEET FLOORING WITH GREY DOTS FRONT FOYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Beige	0.0%	97.4%	2.6% Chrysotile	

Client Sample ID: 823223-SF-02 **Lab Sample ID:** 551502378-0062

Sample Description: TAN SHEET FLOORING WITH BROWN AND ORANGE DOTS/KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Tan/Beige	0.0%	100%	None Detected	

Client Sample ID: 823223-SF-03 **Lab Sample ID:** 551502378-0063

Sample Description: WHITE AND GREY WOOD-LIKE SHEET FLOORING MAIN FLOOR/MAIN FLOOR BATHROOM FLOOR AND WALLS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Beige	0.0%	100%	None Detected	

Client Sample ID: 823223-SF-04 **Lab Sample ID:** 551502378-0064

Sample Description: ORANGE AND YELLOW SHEET FLOORING SECOND FLOOR/BATHROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray/Beige/Orange	0.0%	78.9%	21.1% Chrysotile	

Client Sample ID: 823223-SF-05 **Lab Sample ID:** 551502378-0065

Sample Description: GREY AND ORANGE SHEET FLOORING UNDER/SF-04

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	own/Variou/Orange	0.0%	100%	None Detected	

Client Sample ID: 823223-SF-06 **Lab Sample ID:** 551502378-0066

Sample Description: BLACK SHEET FLOORING WITH WHITE SMUDGES/STAIRS TO BASEMENT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Black/Beige	0.0%	100%	None Detected	

Client Sample ID: 823223-FT-01 **Lab Sample ID:** 551502378-0067

Sample Description: 12X12" BROWN WOOD-LIKE FLOOR TILE/MAIN FLOOR CLOSET BY STAIRS TO SECOND FLOOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Brown	0.0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-FT-01-Mastic **Lab Sample ID:** 551502378-0067A

Sample Description: 12X12" BROWN WOOD-LIKE FLOOR TILE/MAIN FLOOR CLOSET BY STAIRS TO SECOND FLOOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Brown	0.0%	100%	None Detected	

Analyst(s):

- Arabee Sathiaseelan PLM (10)
PLM Grav. Reduction (17)
- John Biesiadecki PLM (15)
- Nicole Dimou PLM Grav. Reduction (4)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 03/16/2015 18:15:24

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500 - 4730 Kingsway
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Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
823223-LP-01 Site: INTERIOR CEMENT Desc: BLUE	551502408-0007		3/16/2015	8900 ppm
823223-LP-02 Site: INTERIOR WALLS Desc: WHITE	551502408-0008		3/16/2015	440 ppm
823223-LP-03 Site: INTERIOR DOOR TRIM Desc: BLUE	551502408-0009		3/16/2015	410 ppm
823223-LP-04 Site: CEMENT FLOOR IN CELLS Desc: RED	551502408-0010		3/16/2015	<90 ppm
823223-LP-05 Site: INTERIOR WALLS IN CELLS Desc: CRÈME	551502408-0011		3/16/2015	110 ppm
823223-LP-06 Site: CEMENT FLOOR Desc: GREY	551502408-0012		3/16/2015	3700 ppm
823223-LP-07 Site: BASEMENT WALLS Desc: YELLOW	551502408-0013		3/16/2015	590 ppm
823223-LP-08 Site: INTERIOR BASEMENT Desc: CRÈME	551502408-0014		3/16/2015	2500 ppm
823223-LP-09 Site: EXTERIOR DECK - OVER RED Desc: BLUE	551502408-0015		3/16/2015	1500 ppm
823223-LP-10 Site: EXTERIOR SIDING Desc: WHITE	551502408-0016		3/16/2015	2600 ppm
823223-LP-11 Site: EXTERIOR TRIM Desc: BLUE	551502408-0017		3/16/2015	3000 ppm


 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44



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 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
----------------------------------	---------------	------------------	-----------------	---------------------------

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

Lisa Podzyhun
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

Appendix E
Findings and Recommendations
– Building 823234: Garage

E-4.0 FINDINGS – BUILDING 823235 GARAGE

Building 823235 Garage was reportedly constructed in 2001.

The results of the assessment for each of the considered hazardous materials within Garage are provided in the following sub-sections.

Floor plan drawings for Building 823235 Garage, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following area was not accessed, for the reason indicated:

- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

E-4.1 Asbestos

Given the reported construction date of Building 823235 Garage (2001), limited ACMs were anticipated to be present. No suspected ACMs were observed through visual assessment and as such, no suspect ACM samples were collected.

E-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes
- Electrical equipment (i.e. batteries for emergency lighting/signage).

With respect to paint, five (5) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table E-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table E-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823235 Garage, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
823235-LP-01	Cement floor	Grey	<110	No
823235-LP-02	Interior walls	White	<130	No
823235-LP-03	Interior door and trim	Blue	<98	No
823235-LP-04	Exterior trim	White	<90	No
823235-LP-05	Exterior posts	Yellow	<97	No

Based on our observations and on our interpretations of suspected LCP sample analytical results, no LCPs were identified.

E-4.3 Polychlorinated Biphenyls

The majority of the approximate thirty (30) fluorescent light fixtures throughout were observed to have high-efficiency light tubes. The ballasts within such fixtures are not suspected to contain PCBs.

E-4.4 Mercury

Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in thirty (30) fluorescent light fixtures.

In addition one (1) suspected mercury-containing thermometer was observed in the garage, as indicated on the attached floor plan drawings.

E-4.5 Mould

Suspect mould or moisture-impacted building materials were not observed at the time of the assessment.

E-4.6 Ozone-Depleting Substances

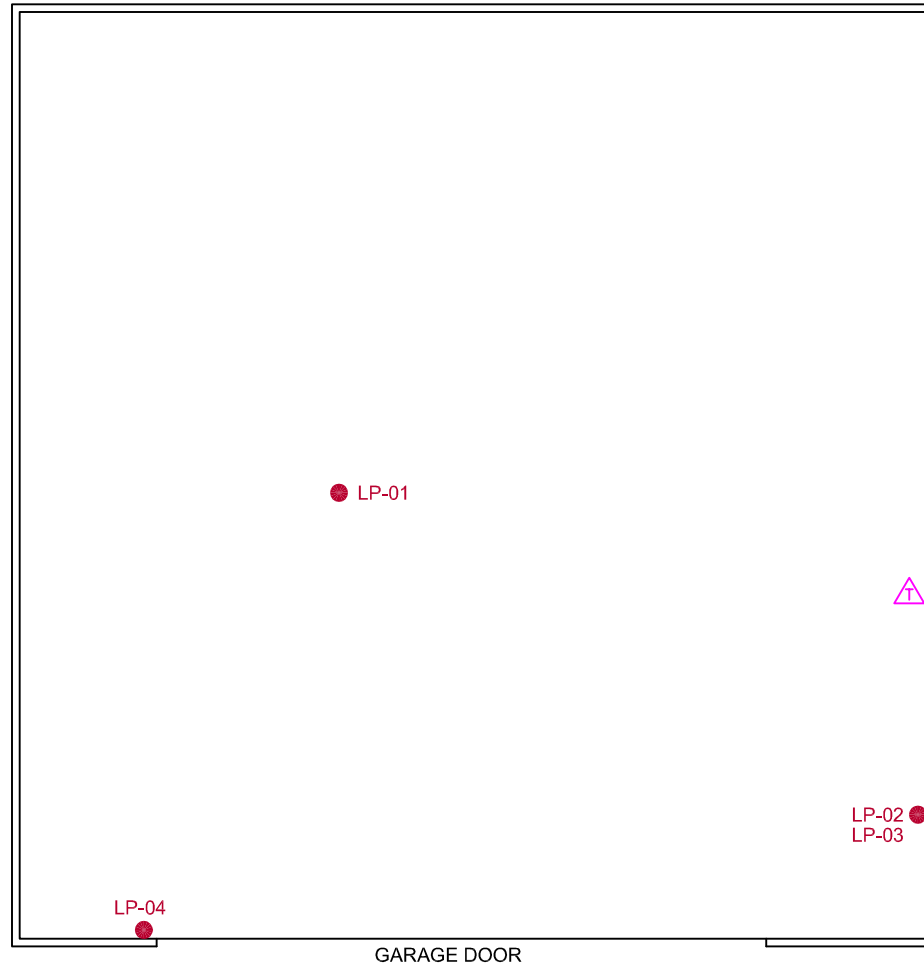
Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

E-4.7 Silica

Silica may be present in concrete in the foundation/floors.

E-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

Identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.



BUILDING 823235: GARAGE



LP-05

LEGEND

- PAINT CHIP SAMPLE
- △ MERCURY-CONTAINING THERMOSTAT

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p style="font-size: 2em;">E</p>	
	Scale: N.T.S.		
	Date: 15/03/19		
	Dwn. By: CD _{VM} SL2015030200		
App'd By: TW			
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA			

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CustomerID:	55JACQ30L
CustomerPO:	123220250-400
ProjectID:	

Attn: **Kim Wiese**
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Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
823235-LP-01 Site: CEMENT FLOOR Desc: GREY	551502408-0018	3/16/2015		<110 ppm
823235-LP-02 Site: INTERIOR WALLS Desc: WHITE	551502408-0019	3/16/2015		<130 ppm
823235-LP-03 Site: INTERIOR DOOR AND TRIM Desc: BLUE	551502408-0020	3/12/2015		<98 ppm
823235-LP-04 Site: EXTERIOR TRIM Desc: WHITE	551502408-0021	3/12/2015		<90 ppm
823235-LP-05 Site: EXTERIOR POSTS Desc: YELLOW	551502408-0022	3/12/2015		<97 ppm

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

Appendix F
Findings and Recommendations
– Building 823236: Main Detachment

F-4.0 FINDINGS – BUILDING 823236 MAIN DETACHEMENT

Building 823236 Main Detachment was reportedly constructed in 1995.

The results of the assessment for each of the considered hazardous materials within the Main Detachment are provided in the following sub-sections.

Floor plan drawings for Building 823236 Main Detachment, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following area was not accessed, for the reason indicated:

- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

F-4.1 Asbestos

Given the reported construction date of Building 823236 Main Detachment (1995), limited ACMs were anticipated to be present. As a measure of diligence, and for confirmatory purposes, Stantec identified and sampled various materials that would be suspected ACMs if present in buildings of older vintage, including the following:

- Green duct mastic
- Red rubber gasket
- Grey penetration putty

Twelve (12) samples of the above-noted suspected ACMs were collected and submitted to EMSL for analysis of asbestos content and nature.

A summary of the sample types, locations and analytical results is presented in Table F-4.1.1, below. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are attached at the end of this Appendix.

**Table F-4.1.1: Suspected ACM Sample Collection and Analysis Summary
Building 823236 Main Detachment, Teslin, YT**

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
823236-DM-01A	Green duct mastic	Basement ducting	None Detected
823236-DM-01B	Green duct mastic	Basement ducting	None Detected
823236-DM-01C	Green duct mastic	Basement ducting	None Detected
823236-RG-01A	Red rubber gasket	Basement drainage pipe	None Detected
823236-RG-01B	Red rubber gasket	Basement drainage pipe	None Detected
823236-RG-01C	Red rubber gasket	Basement drainage pipe	None Detected
823236-PP-01A	Grey penetration putty	Electrical room	None Detected
823236-PP-01B	Grey penetration putty	Electrical room	None Detected
823236-PP-01C	Grey penetration putty	Electrical room	None Detected
823236-PP-02A	Grey penetration putty	Exterior penetrations	None Detected
823236-PP-02B	Grey penetration putty	Exterior penetrations	None Detected
823236-PP-02C	Grey penetration putty	Exterior penetrations	None Detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of suspected ACM sample analytical results, no ACMs were identified.

F-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes
- Electrical equipment (i.e. batteries for emergency lighting/signage).

With respect to paint, six (6) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table F-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table F-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823236 Main Detachment, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
823236-LP-01	Interior paint in holding cell area	White	<90	No
823236-LP-02	Cement floor in garage	Blue	<130	No
823236-LP-03	Trim in garage	Dark blue	<90	No
823236-LP-04	Tanks in basement	Red	<120	No
823236-LP-05	Exterior trim	Light blue	350	No
823236-LP-06	Exterior base board	White	<90	No

Based on our observations and on our interpretations of suspected LCP sample analytical results, no LCPs were identified.

F-4.3 Polychlorinated Biphenyls

The majority of the approximate thirty-six (36) fluorescent light fixtures throughout were observed to have high-efficiency light tubes. The ballasts within such fixtures are not suspected to contain PCBs.

F-4.4 Mercury


Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in thirty-six (36) fluorescent light fixtures.

In addition one (1) suspected mercury-containing thermometer was observed in the holding/cell area, as indicated on the attached floor plan drawings.

F-4.5 Mould

Mould/moisture damage was observed as summarized in Table F-4.5.1, below.

Table F-4.5.1: Summary of Identified Mould and/or Moisture-Impacted Materials Building 823236 Main Detachment, Teslin, YT

Identified Mould and/or Moisture Impacted Materials Description	Photo
<p>Water stained ceiling tiles observed in the basement by the oil storage tanks.</p> <p>Suspected source of moisture was pipe leaks in the ceiling space – or potentially condensation from HVAC systems and associated drip-pan overflow.</p>	

F-4.6 Ozone-Depleting Substances

Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

F-4.7 Silica

Silica may be present in concrete, ceramic tiles, and acoustical ceiling tiles observed in various locations throughout.

F-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

In general, identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.

Additional building-specific recommendations to be considered are provided below.

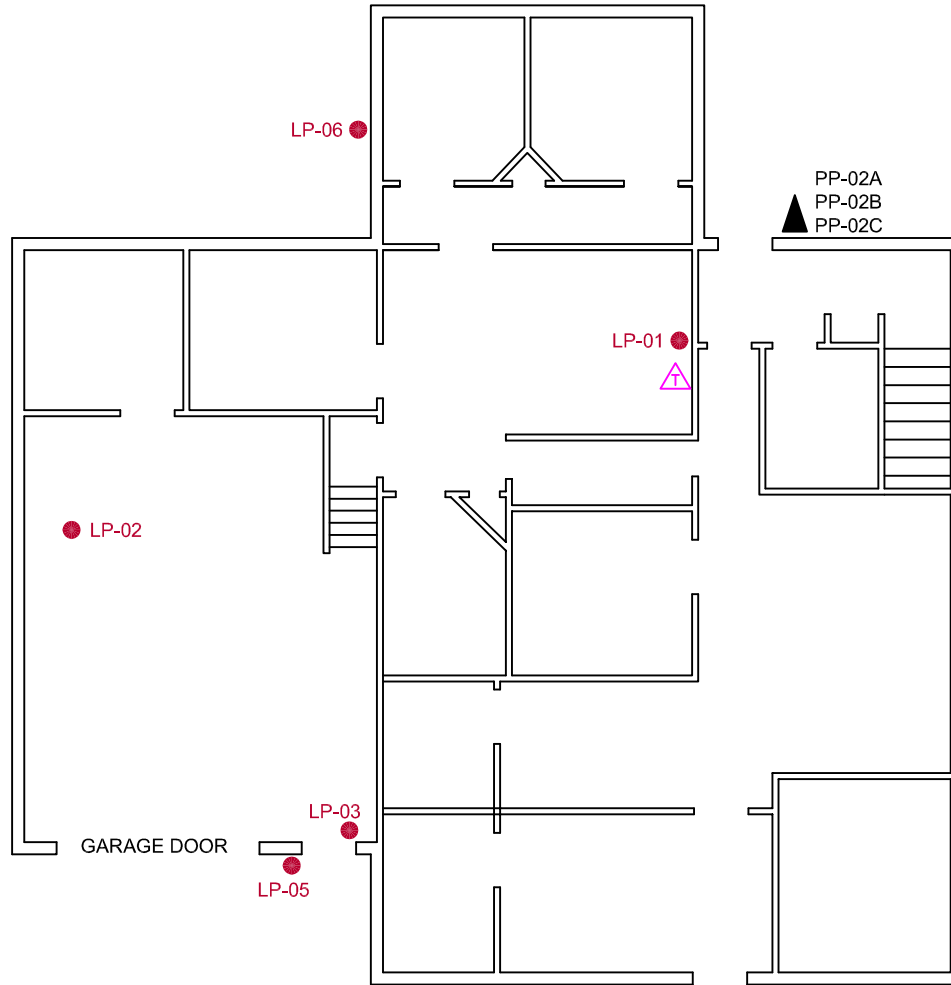
F-5.5 Mould

Stantec recommends the following course of action within the subject building:

- Remove and replace moisture-stained ceiling tiles with new tiles. If staining re-appears on the new tiles, the source of moisture should be identified and corrected. This work




can be conducted by regular facility maintenance staff, if conducted prior to the onset of mould growth.

- An assessment to determine the likely source(s) of water staining should be undertaken. Issues leading to moisture impacts and/or mould growth should be identified and addressed prior to reinstating building materials to areas where mould abatement is conducted, to avoid the potential for re-wetting of new materials, and repeated mould growth.




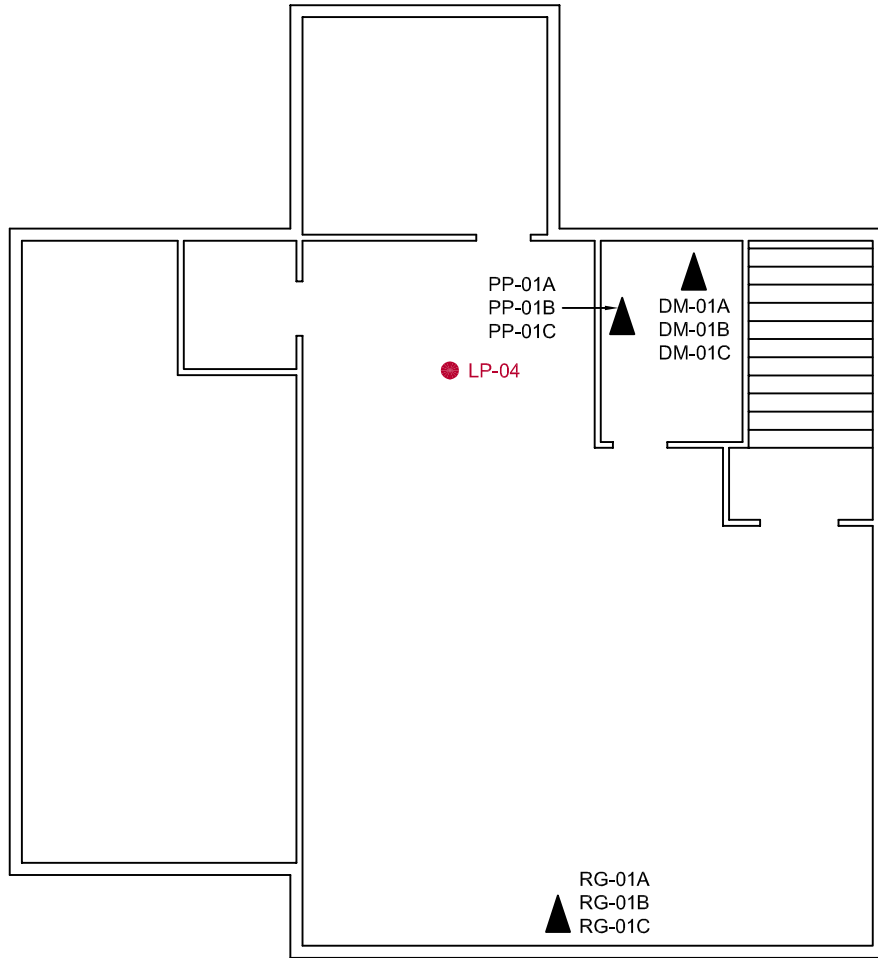
**BUILDING 823236: MAIN DETACHMENT
MAIN FLOOR**

LEGEND

-  BULK SAMPLE
-  PAINT CHIP SAMPLE
-  MERCURY-CONTAINING THERMOSTAT

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p>F-1</p> 
	Scale: N.T.S.	
	Date: 15/03/19	
	Dwn. By: CD _{VM} SL2015030201	
	App'd By: TW	
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA		



**BUILDING 823236: MAIN DETACHMENT
BASEMENT**

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

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<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250.400	<p>Dwg.:</p> <p style="font-size: 2em;">F-2</p>
	Scale: N.T.S.	
	Date: 15/03/19	
	Dwn. By: CD _{VM} SL2015030202	
App'd By: TW		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA		



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Customer PO: 123220250-400
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Fax:
Collected:
Received: 3/11/2015
Analyzed: 3/16/2015

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823236-DM-01A **Lab Sample ID:** 551502378-0068

Sample Description: GREEN DUCT MASTIC BASEMENT DUCTING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-DM-01B **Lab Sample ID:** 551502378-0069

Sample Description: GREEN DUCT MASTIC BASEMENT DUCTING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-DM-01C **Lab Sample ID:** 551502378-0070

Sample Description: GREEN DUCT MASTIC BASEMENT DUCTING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-RG-01A **Lab Sample ID:** 551502378-0071

Sample Description: RED RUBBER GASKET BASEMENT DRAINAGE PIPE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Red	0.0%	100%	None Detected	

Client Sample ID: 823236-RG-01B **Lab Sample ID:** 551502378-0072

Sample Description: RED RUBBER GASKET BASEMENT DRAINAGE PIPE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Red	0.0%	100%	None Detected	

Client Sample ID: 823236-RG-01C **Lab Sample ID:** 551502378-0073

Sample Description: RED RUBBER GASKET BASEMENT DRAINAGE PIPE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Red	0.0%	100%	None Detected	

Client Sample ID: 823236-PP-01A **Lab Sample ID:** 551502378-0074

Sample Description: GREY PENETRATION PUTTY ELECTRICAL ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823236-PP-01B **Lab Sample ID:** 551502378-0075
Sample Description: GREY PENETRATION PUTTY ELECTRICAL ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-PP-01C **Lab Sample ID:** 551502378-0076
Sample Description: GREY PENETRATION PUTTY ELECTRICAL ROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-PP-02A **Lab Sample ID:** 551502378-0077
Sample Description: GREY PENETRATION PUTTY EXTERIOR PENETRATIONS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-PP-02B **Lab Sample ID:** 551502378-0078
Sample Description: GREY PENETRATION PUTTY EXTERIOR PENETRATIONS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Client Sample ID: 823236-PP-02C **Lab Sample ID:** 551502378-0079
Sample Description: GREY PENETRATION PUTTY EXTERIOR PENETRATIONS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	Gray	0.0%	100%	None Detected	

Analyst(s):

Arabee Sathiaselan PLM Grav. Reduction (8)
Nicole Dimou PLM Grav. Reduction (4)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 03/16/2015 15:24

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EMSL Canada Or	551502408
CustomerID:	55JACQ30L
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ProjectID:	

Attn: **Kim Wiese**
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6

Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
823236-LP-01 Site: INTERIOR PAINT IN HOLDING CELL AREA Desc: WHITE	551502408-0023	3/12/2015		<90 ppm
823236-LP-02 Site: CEMENT FLOOR IN GARAGE Desc: BLUE	551502408-0024	3/12/2015		<130 ppm
823236-LP-03 Site: TRIM IN GARAGE Desc: DARK BLUE	551502408-0025	3/12/2015		<90 ppm
823236-LP-04 Site: TANKS IN BASEMENT Desc: RED	551502408-0026	3/16/2015		<120 ppm
823236-LP-05 Site: EXTERIOR TRIM Desc: LIGHT BLUE	551502408-0027	3/16/2015		350 ppm
823236-LP-06 Site: EXTERIOR BASE BOARD Desc: WHITE	551502408-0028	3/16/2015		<90 ppm

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

Appendix G
Findings and Recommendations
- Building 823256: Residence

G-4.0 FINDINGS – BUILDING 823256 RESIDENCE

Building 823256 Residence was reportedly constructed in 1993.

The results of the assessment for each of the considered hazardous materials within the Residence are provided in the following sub-sections.

Floor plan drawings for Building 823256 Residence, which include locations of the samples collected during this assessment and locations of identified hazardous building materials (where practical), are attached to this Appendix.

The following area was not accessed, for the reason indicated:

- The roof (safe access not available due to ice and snow on roof and surrounding surfaces)

G-4.1 Asbestos

Given the reported construction date of Building 823256 Residence (1993), limited ACMs were anticipated to be present. As a measure of diligence, and for confirmatory purposes, Stantec identified and sampled various materials that would be suspected ACMs if present in buildings of older vintage, including the following:

- Tan sheet flooring
- White ceiling texture coat
- Drywall joint compound

Nine (9) samples of the above-noted suspected ACMs were collected and submitted to EMSL for analysis of asbestos content and nature.

A summary of the sample types, locations and analytical results is presented in Table B-4.1.1, below. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are attached at the end of this Appendix.

**Table B-4.1.1: Suspected ACM Sample Collection and Analysis Summary
Building 823256 Residence, Teslin, YT**

Sample Number	Material Description	Sample Location	Result (%/type asbestos)
823256-SF-01	Tan sheet flooring	Under laminate in kitchen and living room	None Detected
823256-CTC-01A	White ceiling texture coat	Kitchen	None Detected
823256-CTC-01B	White ceiling texture coat	Main floor foyer	None Detected
823256-CTC-01C	White ceiling texture coat	Bedroom	None Detected
823256-DJC-01A	Drywall joint compound	Main floor hallway	None Detected
823256-DJC-01B	Drywall joint compound	Basement stairs landing	None Detected
823256-DJC-01C	Drywall joint compound	Kitchen by stairs	None Detected
823256-DJC-01D	Drywall joint compound	Main floor bathroom	None Detected
823256-DJC-01E	Drywall joint compound	Bedroom	None Detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of suspected ACM sample analytical results, no ACMs were identified.

G-4.2 Lead

Lead is expected to be present in the following materials:

- Solder used on copper domestic pipes
- Caulking on bell fittings for cast iron drainage pipes

With respect to paint, two (2) paint chip samples were obtained, where suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented in Table B-4.2.1, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached to this Appendix.

**Table B-4.2.1: Suspected LCP Sample Collection and Analysis Summary
Building 823256 Residence, Teslin, YT**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
823256-LP-01	Basement floor paint	Grey	<260	No
823256-LP-02	Exterior stairs	Grey	<110	No

Based on our observations and on our interpretations of suspected LCP sample analytical results, no ACMs were identified.

G-4.3 Polychlorinated Biphenyls

Based on the construction date of the building (1992), PCBs are not anticipated to be present.

G-4.4 Mercury

Mercury vapour is expected to be present in fluorescent light bulbs/tubes observed in two (2) fluorescent light fixtures.

G-4.5 Mould

Suspect mould or moisture-impacted building materials were not observed at the time of the assessment.

G-4.6 Ozone-Depleting Substances

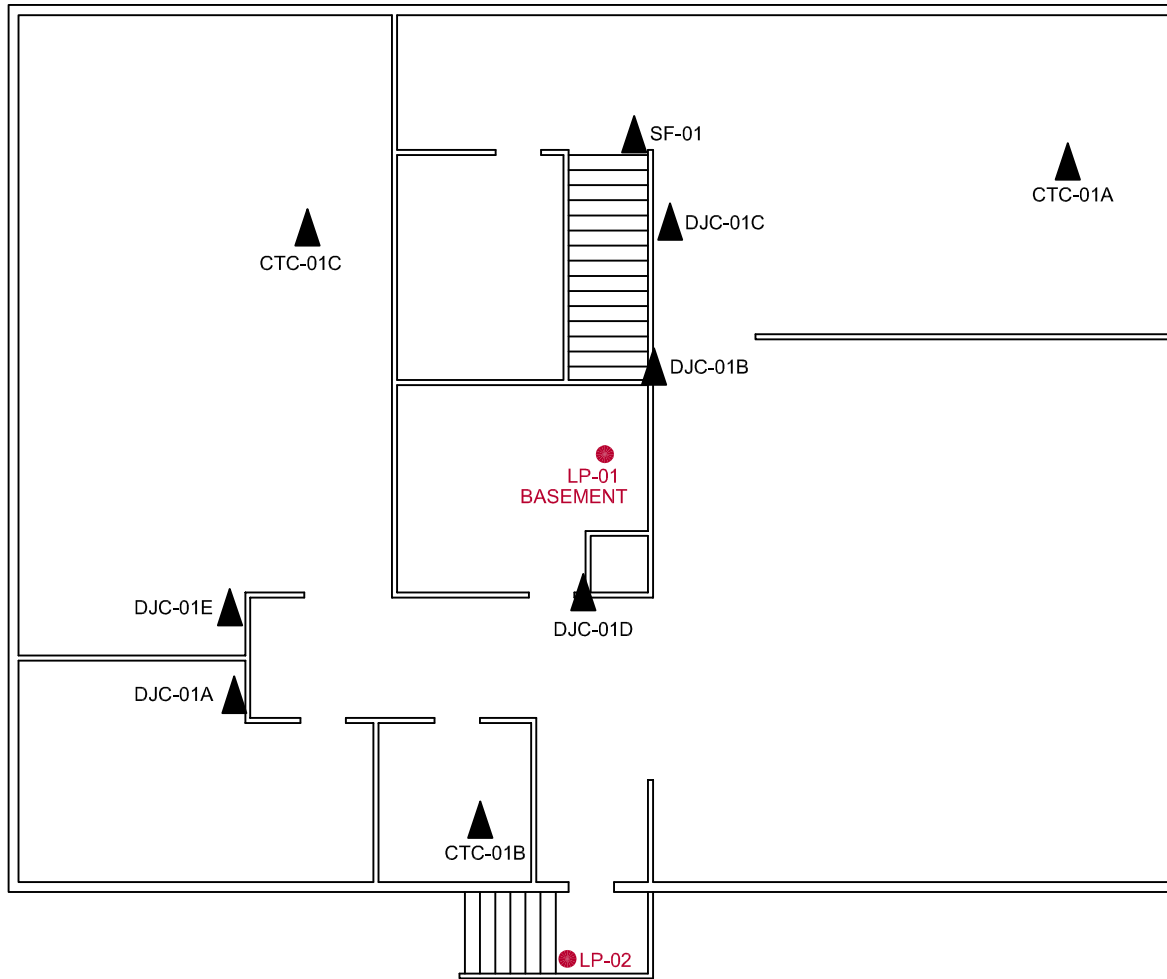
Building related cooling and refrigeration equipment suspected to be ODS-containing was not observed.

G-4.7 Silica

Silica may be present in concrete in the foundation/floors.

G-5.0 BUILDING-SPECIFIC RECOMMENDATIONS

Identified hazardous building materials were observed to be in good condition and do not appear to require specific action to maintain compliance with applicable regulations for continued operations and maintenance. Refer to Section 5.0 of the main body of this report for applicable material-by-material general recommendations.



BUILDING 823256: RESIDENCE

LEGEND

- BULK SAMPLE
- PAINT CHIP SAMPLE

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP YUKON - TESLIN</p>	Project No.: 123220250,400	<p>Dwg.:</p> <p style="font-size: 2em;">G</p>	
	Scale: N.T.S.		
	Date: 15/04/01		
	Dwn. By: CD <small>SL2015040019</small> VM/DM		
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA	App'd By: TW		



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

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500 - 4730 Kingsway
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Proj: 123220250-400.100
Phone: (604) 412-3004
Fax:
Collected:
Received: 3/11/2015
Analyzed: 3/16/2015

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823256-SF-01 **Lab Sample ID:** 551502378-0080

Sample Description: TAN SHEET FLOORING UNDER LAMINATE IN KITCHEN/AND LIVING RM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/16/2015	White/Beige	0.0%	100%	None Detected	

Client Sample ID: 823256-CTC-01A **Lab Sample ID:** 551502378-0081

Sample Description: WHITE CEILING TEXTURE COAT KITCHEN

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-CTC-01B **Lab Sample ID:** 551502378-0082

Sample Description: WHITE CEILING TEXTURE COAT MAIN FLOOR FOYER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-CTC-01C **Lab Sample ID:** 551502378-0083

Sample Description: WHITE CEILING TEXTURE COAT BEDROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-DJC-01A **Lab Sample ID:** 551502378-0084

Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR HALLWAY

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-DJC-01B **Lab Sample ID:** 551502378-0085

Sample Description: DRYWALL JOINT COMPOUND BASEMENT STAIRS LANDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-DJC-01C **Lab Sample ID:** 551502378-0086

Sample Description: DRYWALL JOINT COMPOUND KITCHEN BY STAIRS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	



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EMSL Canada Order 551502378
Customer ID: 55JACQ30L
Customer PO: 123220250-400
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823256-DJC-01D **Lab Sample ID:** 551502378-0087
Sample Description: DRYWALL JOINT COMPOUND MAIN FLOOR BATHROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Client Sample ID: 823256-DJC-01E **Lab Sample ID:** 551502378-0088
Sample Description: DRYWALL JOINT COMPOUND BEDROOM

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2015	White	0%	100%	None Detected	

Analyst(s):

Arabee Sathiseelan PLM (3)
PLM Grav. Reduction (1)
John Biesiadecki PLM (5)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 03/16/2015 18:15:24



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Phone: (604) 412-3004
 Fax:
 Received: 03/11/15 11:30 AM
 Collected:

Project: 123220250-400.100

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
823256-LP-01	551502408-0029	3/16/2015		<260 ppm
	Site: BASEMENT FLOOR PAINT Desc: GREY			
823256-LP-02	551502408-0030	3/16/2015		<110 ppm
	Site: EXTERIOR STAIRS Desc: GREY			

Insufficient sample to reach reporting limit for sample #551502408-0002/-0003/-0005/-0006/-0018/-0019/-0026/-0029/-0030.

Lisa Podzyhun
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 03/17/2015 09:29:44

Pre-Demolition Hazardous Building Materials Assessment

RCMP M Division Former
Detachment
Johnson Road, Teslin, YT



Prepared for:
Public Services and Procurement
Canada
Environmental Services, Pacific
Region
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October 23, 2017

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PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

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Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Public Services and Procurement Canada (PSPC) on behalf of the Royal Canadian Mounted Police (RCMP) to conduct a pre-demolition hazardous building materials assessment within the Former RCMP Detachment located on Johnston Road in Teslin, Yukon Territory (subject building).

The purpose of the assessment was to check for potential hazardous building materials that may require special attention in accordance with the requirements of the Canada Labour Code, Part II (Canada Labour Code), Yukon Workers' Compensation Health and Safety Board (WCB) and the current version of the Yukon Territory *Occupational Health and Safety Act* and Regulations (YT OHS Reg.), during planned demolition activities.

The hazardous building materials considered included asbestos-containing materials (ACMs), lead-containing materials including lead-containing paints (LCPs), polychlorinated biphenyls (PCBs), mercury-containing items, ozone-depleting substances (ODSs), mould-impacted building materials and silica.

The assessment was conducted to supplement the information provided in the following report:

- Stantec Report No. 123220250 entitled *Hazardous Building Materials Assessment – RCMP Detachment, Teslin, YT*, dated November 3, 2016, prepared for Public Works and Government Services Canada (previous report)

Based on Stantec's visual assessment and on the laboratory analyses performed on samples collected during the current assessment, as well as a review of information provided in the previous report, hazardous building materials were identified within the subject building.

A summary of our findings is presented below. Recommendations pertaining to the handling, removal, transportation and disposal of identified hazardous building materials are provided in the body of this report.

The statements made in this Executive Summary text are subject to the same limitations included in this report, and are to be read in conjunction with the remainder of this report.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Summary of Findings

Building Materials	Comments
Asbestos	<p>The following ACMs were identified through the previous report, and were visually confirmed to remain within the building during the current assessment:</p> <ul style="list-style-type: none"> • Brown duct mastic throughout • Cement panel on the exterior, under the first layer of siding • Tan sheet flooring with grey dots in the front foyer, central stairwell to basement and stairwell to cells <ul style="list-style-type: none"> – Observed to be cracking at the top of the central stairwell during the current assessment • Orange and yellow sheet flooring in the second-floor bathroom <ul style="list-style-type: none"> – Observed to be damaged near the floor vent during the current assessment <p>Unless otherwise noted above, these materials were observed to be in good condition.</p> <p>No additional ACMs were identified through the current assessment</p> <p>During the current assessment, presumed asbestos-containing materials (PACMs) were observed to be present in the form of:</p> <ul style="list-style-type: none"> • Sealant on rooftop exhaust stack and plumbing vents <p>These materials were observed to be in good condition. These materials were not sampled as safe access to the roof of the subject building was not available. As these materials are known to have been manufactured with asbestos, they should be presumed to be asbestos-containing unless proven otherwise by laboratory analysis.</p>
Lead	<p>The following LCPs were identified through the previous report, and were visually confirmed to remain within the building during the current assessment:</p> <ul style="list-style-type: none"> • Blue coloured paint on the cement floor of the main floor • Grey coloured paint on the cement floor in the basement • Cream coloured paint on the interior basement walls • Blue coloured paint on the exterior deck • White coloured paint on the exterior siding • Blue coloured paint on the exterior trim <p>Lead is also expected to be present in the following materials as identified in the previous report:</p> <ul style="list-style-type: none"> • Solder used on copper domestic pipes, bell fittings for cast iron pipes and in electrical equipment (i.e., batteries for emergency lighting/signage) • Vent and pipe flashings on the roof <p>Additional LCPs or lead-containing items were not identified through the current assessment.</p>
Polychlorinated biphenyls (PCBs)	<p>PCBs may be present in the fluorescent light ballasts of the three light fixtures observed in the garage during the current assessment. As the ballasts were energized, they could not be inspected at the time of the assessment for health and safety reasons.</p>

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Summary of Findings

Building Materials	Comments
Mould	<p>The following mould and moisture impacted building materials were identified through the previous report, and were visually confirmed to remain within the building during the current assessment:</p> <ul style="list-style-type: none">• Suspect mould on drywall throughout the basement
Mercury	<p>One suspect mercury-containing thermostat on the main floor in the southwest room was identified through the previous report.</p> <p>One additional mercury-containing thermostat was observed in the garage during the current assessment.</p>
Ozone-depleting substance (ODS)	<p>Building related cooling and refrigeration equipment suspected to be ODS-containing was not identified through the previous report or the current assessment.</p>
Silica	<p>Silica is expected to be present in concrete floors and drywall walls observed in various locations throughout as indicated in the previous report. These items were visually confirmed to remain during the current assessment.</p>

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Introduction
October 23, 2017

1.0 INTRODUCTION

Stantec Consulting Ltd. (Stantec) was retained by Public Services and Procurement Canada (PSPC) on behalf of the Royal Canadian Mounted Police (RCMP) to conduct a pre-demolition hazardous building materials assessment within the Former RCMP Detachment located on Johnston Road in Teslin, Yukon Territory (subject building).

The purpose of the assessment was to check for potential hazardous building materials that may require special attention in accordance with the requirements of the Canada Labour Code, Part II (Canada Labour Code), Yukon Workers' Compensation Health and Safety Board (WCB) and the current version of the Yukon Territory *Occupational Health and Safety Act* and Regulations (YT OHS Reg.), during planned demolition activities.

The hazardous building materials considered included asbestos-containing materials (ACMs), lead-containing materials including lead-containing paints (LCPs), polychlorinated biphenyls (PCBs), mercury-containing items, ozone-depleting substances (ODSs), mould-impacted building materials and silica.

The site work was conducted by David Siemens of Stantec on August 14, 2017.

2.0 BACKGROUND

The former Teslin Detachment is located on Johnson Road in Teslin, Yukon Territory (subject building) was reportedly constructed in 1957. This construction time period is consistent with those dates when hazardous building materials were commonly used.

The typical structural components and finishes associated with this building consist of exterior wood siding, drywall ceilings and walls, and concrete, carpet and vinyl sheet flooring.

2.1 DOCUMENT REVIEW

The following report was reviewed prior to undertaking the assessment:

- Stantec Report No. 123220250 entitled *Hazardous Building Materials Assessment – RCMP Detachment, Teslin, YT*, dated November 3, 2016, prepared for Public Works and Government Services Canada (previous report)

This document provided Stantec with an understanding of hazardous building materials that are anticipated to be present at the subject building.

As the previous report was non-destructive in nature, PSPC commissioned this assessment on behalf of the RCMP, to supplement the information pertaining to hazardous building materials, as part of the demolition planning process.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Scope and Methodology
October 23, 2017

3.0 SCOPE AND METHODOLOGY

David Siemens of Stantec reviewed the previous report prior to conducting a visual assessment within the subject building on August 14, 2017. Site work was conducted in general compliance with the requirements of the Canada Labour Code, the WCB, the current version of the YT OHS Reg. and Stantec's Safe Work Practices (SWPs).

Mechanical systems, structures and finishes of the subject building were visually examined to determine the suspected presence of ACMs, lead including LCPs, PCBs, mercury, ODSs, mould, and silica. Where building materials were suspected but not confirmed to contain asbestos or lead (in paint), samples were collected for analysis to confirm or deny the presence of these hazardous materials. Based on analytical results, visually similar materials were referenced to specific analyzed samples to reduce the number of samples collected.

Additional background information and the methodology used for the determination of presence or absence of each specific hazardous material considered in this assessment are outlined in the following sections.

3.1 ASBESTOS

Asbestos-containing materials are grouped into two classifications, friable and non-friable materials. Friable ACMs are those that can easily be crumbled or broken apart by mere hand pressure. When these materials break apart asbestos fibres can then be released into the atmosphere. Non-friable ACMs are materials that by the nature of their manufacturing and/or construction do not readily allow the release of asbestos fibres. Some non-friable materials such as plaster, drywall joint compound and ceiling tiles that are considered to be non-friable in an undisturbed state can more readily release fibres when damaged or disturbed.

The common use of friable ACMs in construction ceased voluntarily in the mid-1970s; however, the spray application of asbestos-containing fireproofing was not prohibited until 1986. A material known as vermiculite, which was commonly used for insulation within attics, floor spaces or within masonry block wall systems and may be contaminated with asbestos due to its production processes, was used into the mid-1990s. In addition, asbestos cement products and some non-friable sealant products currently used in the construction of buildings may still contain asbestos.

The presence of asbestos in federal workplaces, and pertaining to federally regulated workers is governed by the Canada Labour Code. The presence of asbestos in the workplace in the Yukon pertaining to territorially regulated workers is governed by the WCB, with provisions published in the current version of the YT OHS Reg. As both federally regulated workers and territorially regulated workers (e.g., contractors) are expected to carry out work activities within the subject building, and as the territorial regulations are generally more prescriptive pertaining to asbestos

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Scope and Methodology
October 23, 2017

(and generally include the requirements noted in the Canada Labour Code), this assessment was conducted to meet the requirements of the current version of the YT OHS Reg.

According to current version of the YT OHS Reg., asbestos-containing material (ACM) means any material which is found to contain any asbestos.

Based on this criterion, a visual assessment of accessible areas was undertaken in order to check for the presence of materials suspected of containing asbestos that had not been previously assessed or sampled per the previous report, or for which additional sampling would be necessary to adequately characterize a particular material for pre-demolition assessment purposes.

Where additional suspected ACMs were identified and/or where additional sampling was required to adequately characterize materials for pre-demolition purposes, locations to collect discrete bulk samples were identified. Samples of representative materials were then collected at these locations.

Multiple samples were collected from each "homogenous application" of observed suspected ACMs (materials suspected to contain asbestos that are uniform in material type, colour, texture application and estimated installation date) and submitted to EMSL Canada Inc. (EMSL) in Mississauga, ON for analysis of asbestos content using polarized light microscopy (PLM) with dispersion staining, in accordance with the United States Environmental Protection Agency (EPA) 600/R-93/116 method.

The number of samples to be collected for each homogenous application of a suspected ACM was based on accepted occupational hygiene standards and protocols, along with the assessor's experience and understanding of the consistency of that building material's application.

EMSL's analytical laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

3.1.1 Sample Results Interpretation

When asbestos is detected in one of the samples within a set that was collected to represent a "homogenous application" of a particular material, the entire sample set and the entire application of that material is then considered to be an ACM.

3.1.2 Potential Asbestos-Containing Vermiculite Insulation

As part of the assessment, Stantec assessed the subject building for areas where vermiculite insulation, a potential ACM, would likely be present. This included making note of and assessing attic spaces, floor cavities and masonry or brick walls, which are typical areas where vermiculite is found.

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3.1.3 Asbestos Sampling Quality Assurance/Quality Control

Sampling activities pertaining to asbestos were conducted in accordance with Stantec's SWPs, which take into account current territorial regulations pertaining to such work (i.e., sampling procedures, required number of samples, and laboratory analytical procedures).

Representative bulk samples were collected of accessible suspect ACMs in sufficient quantities for laboratory analyses. Suspect ACM samples were sealed in polyethylene zip-lock bags labeled with the sample number, suspect material description, and sample location. As part of sampling procedures, sampling tools were cleaned between sample collection events to avoid the potential for cross-contamination of samples.

Sample bags were compiled in order and placed into a single container accompanied with a Chain of Custody form outlining the project information, date, building location, number of samples, and sample description. Samples were submitted to the analytical laboratory in a sealed container via courier.

3.2 LEAD

Lead may be used in its pure metallic form or combined chemically with other elements to form lead compounds. Metallic lead is used to make products such as electric storage batteries, ammunition, lead solder, radiation shields, pipes, and sheaths for electric cables. Metallic lead is sometimes combined with other metals such as copper, tin, and antimony as lead alloys for use in the manufacture of a variety of metal products. Lead is commonly found in building in the solder used on copper domestic pipes, in the caulking on bell fittings of cast iron drainage pipes and in electrical equipment.

The presence of lead-containing materials (other than paint) was assessed through visual means.

With respect to potential lead exposures associated with disturbance to surfaces coated with lead-containing products, various occupational health and safety administrations have indicated that working with materials coated with paint that has a lead content that exceeds 600 ppm can lead to exposures in excess of 50% of the occupational exposure limit (OEL) for lead, when the OEL is 0.05 mg/m³ (the OEL for lead in the Yukon, according to the current version of the YT OHS Reg., is 0.15 mg/m³).

Prior to disposal, Yukon Environment recommends that analytical results for building materials should be compared to the territorial soil guideline value of 1,000 ppm as found in the Contaminated Sites Regulations. As such, and given that the OEL for lead in the Yukon is three times that of jurisdictions that reference 600 ppm as lead-containing, Stantec will reference the 1,000 ppm value in defining paints as "lead-containing" as the most applicable criteria.

Based on this criterion, samples of suspected LCPs were collected from major paint applications that had not been sampled for the previous report, and were collected to substrate, where possible, in sufficient quantity to conduct analyses for total lead content. Samples collected

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were placed into separate, sealed, and labeled polyethylene bags, and submitted to EMSL for analyses of total lead content using Flame Atomic Absorption Spectrometry AAS (SW 846 3050B*/7000B).

EMSL's analytical laboratory is also accredited by the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Approval Program.

3.3 POLYCHLORINATED BIPHENYLS

PCBs were used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment. In fluorescent fixtures, PCBs were usually found within the small capacitors inside the ballast that controls the lamp. The Federal Chlorobiphenyls Regulation, SOR/91-152, prohibited the use of PCBs in electrical equipment manufactured after July 1, 1980.

A visual review for the presence of PCBs in electrical equipment was completed. Equipment that is generally suspected of containing PCBs includes lamp ballasts, transformers, hydraulic systems, compressors, switchgear and capacitors.

No sampling of dielectric fluids was undertaken as part of this assessment.

3.4 MOULD AND MOISTURE IMPACTED MATERIALS

Moist building materials may provide suitable conditions for mould growth, and the removal of building materials impacted by mould growth may require workers with specific training and experience using work procedures that have been developed to protect workers and work areas from exposure to elevated concentrations of airborne mould.

The presence of suspect visible mould was assessed through visual means only. Material observed with dark-colored staining and/or a textured and discolored appearance is described as "suspect mould". Mould identified visually is defined as "suspect mould" unless it is confirmed as mould by laboratory analysis.

3.4.1 Mould Reference Guidelines

With respect to mould and/or moisture, the visual assessment procedures utilized during this project were based on the recommendations provided in the documents listed below:

- Standard Construction Document CCA 82 *Mould Guidelines for the Canadian Construction Industry*, Canadian Construction Association, 2004 (referred to as CCA 82)
- *Guidelines on Assessment and Remediation of Fungi in Indoor Environment*, New York City Department of Health, Bureau of Environmental and Occupational Disease Epidemiology, April 2000 (referred to as the NYC Guidelines)
- *Fungal Contamination in Public Building: Health Effects and Investigation Methods*, Federal-Provincial Committee on Environmental and Occupational Health, 2004 (referred to as the Health Canada Guide)

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- *Indoor Air Quality in Office Building: A Technical Guide*, Report of the Federal-Provincial Advisory Committee on Environmental and Occupational Health, 1995 (referred to as the IAQ Guide)
- *Bioaerosols: Assessment and Control*, American Conference of Governmental Industrial Hygienists (ACGIH), 1999 (referred to as the ACGIH Report)
- *Field Guide for the Determination of Biological Contaminants in Environmental Samples*, AIHA, Second Edition 2005
- *Best Practices Mould at the Work Site*, Government of Alberta, Employment and Immigration, July 2009

3.5 MERCURY

Mercury is commonly found in building as mercury vapour lighting, thermostats/thermometers with mercury-containing glass ampoules, electrical switches and can also be found in minor amounts in fluorescent lamp tubes and vapour bulbs and may be present in stable forms in adhesives. Exposure to mercury in workplaces is governed by the WCB.

The presence of mercury and mercury-containing equipment was assessed through visual means.

3.6 OZONE-DEPLETING SUBSTANCES

Chlorofluorocarbons (CFCs) and other ODSs are often found in refrigeration units associated with air-conditioning or other refrigeration equipment. In September 1987, 47 countries agreed to the Montreal Protocol on Substances that Deplete the Ozone Layer. Disposal of ODSs are regulated in the Yukon by the Yukon Government's Special Waste Regulations (2010) and the Federal Halocarbon Regulations, 2003 (FHR 2003).

The presence of ODSs and equipment containing these materials was assessed through visual means.

3.7 SILICA

Silica, also referred to as free crystalline silica, is found in concrete, cement, mortar, ceramic wall and floor tiles, stucco finishes and acoustic ceiling tiles. Prolonged exposure to, and inhalation of free crystalline silica, may result in respiratory disease known as silicosis, which is characterized by progressive fibrosis of the inner lung tissue and marked shortness of breath or impaired lung function.

Exposure to silica dust is governed by the WCB, with applicable exposure limits indicated in the current version of the YT OHS Reg., depending on the type of silica to be considered (quartz, cristobalite or tridymite).

The presence of silica was assessed through visual means.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Assessment Limitations
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4.0 ASSESSMENT LIMITATIONS

This report reflects the observations made within accessed areas of the subject building and the results of analyses performed on specific materials sampled during the current assessment and identified in the previous report. Analytical results reflect the sampled materials at the specific sample locations.

Sampling was conducted pertaining to suspected ACMs and suspected LCPs only. The assessment for the presence of other hazardous building materials was visual in nature, and was conducted pertaining to readily visible surfaces within accessible spaces only. Concealed spaces were inspected via existing access panels, where present. Interior and exterior finishes, solid ceilings, walls, flooring and structural elements were not removed to access concealed areas. Inspection ports were made in various places where the presence of hazardous building materials was suspected behind solid finishes.

Stantec reviewed the previous report outlined herein for information purposes, and the information provided was considered in developing the current assessment and sampling plan.

Where previous sampling and analytical data indicated the presence of a hazardous building material (e.g., asbestos, lead), additional sampling was not conducted, and the material was considered to be hazardous.

Due to limitations on the agreed to scope of work for this project as well as physical limitations in accessing concealed areas as well as limitations associated with working in occupied/operational spaces, there are specific limitations to the information that can be provided to each hazardous building material considered in this assessment, as outlined in the following sub-sections.

4.1 ASBESTOS

Suspected ACMs that were not sampled included, but were not limited to, the following (where present, based on building construction or as otherwise noted):

- Roofing sealants, and roofing materials concealed beneath exposed layers (if present)
- Sub-grade materials (e.g., asbestos cement drainage pipe)
- Woven tape inside duct connection joints
- Mechanical (e.g., piping and ducting) insulation within wall cavities, crawlspaces tunnels or other concealed spaces
- Heating, ventilation and air conditioning (HVAC) units mechanical inner linings and/or insulation on the interior side of ducts
- Heat protection materials inside mechanical installations and light fixtures
- Materials within sealed wall cavities

If encountered during renovation, demolition or other activities, any suspected ACMs not identified within this report should be presumed to contain asbestos and handled as such until otherwise proven, through analytical testing.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Assessment Limitations
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4.2 LEAD

Assessment for the presence of lead or lead-containing materials was visual in nature, and was conducted pertaining to readily visible surfaces within accessible spaces of the subject building only. Additional lead or lead-containing materials may be present in inaccessible areas including, but not limited to, ceiling spaces, wall cavities and buried materials.

With respect to paint, samples of suspected LCPs were collected within the subject building only from surfaces of major paint applications where visually different paint colours and/or types were identified. Although the surfaces where samples were collected may be covered with more than one coat of paint, the paint samples are described by the surface (visible) colour only.

Attempts were made to represent all layers of paint in the samples collected. As analytical results are referenced to the surface paint colour only, the lead content of all painted surfaces similar to that represented by the surface paint colour will be presumed to be the same, regardless of differing sub surface paints, if any.

4.3 POLYCHLORINATED BIPHENYLS

Due to height restrictions and the risk of electrical shock in handling operational light fixtures, the ballasts present in the fixtures observed were not inspected for PCB labels or other PCB identifiers. Conclusions and recommendations regarding the presence of PCBs are based on limited observations and is presented to provide guidance regarding the likelihood that PCB-containing equipment is or is not present. The exact extent and/or number of fluorescent lamp ballasts containing PCBs, if any, will not be commented on.

4.4 MOULD AND MOISTURE IMPACTED MATERIALS

Visual assessment for the presence of suspected visible mould and/or suitable conditions for mould growth (e.g., moist and/or water-stained building materials) were conducted in accessed portions of the subject building only. The assessment was not intrusive in nature and included visual assessment of exposed surfaces and closer inspection of known problem areas.

The conclusions made in this report provide description(s) of the potential source(s) of moisture within the subject building that may have led to suitable conditions for mould growth, only in those cases where potential source(s) of moisture were identified. These conclusions will not necessarily identify all sources of moisture leading to suitable conditions for mould growth within the subject building or within the impacted area(s).

This assessment does not constitute a building envelope/building systems assessment for any of the subject building, which would include an intrusive investigation to assess the internal condition, potential moisture sources, and expected remaining service life of the various components and systems comprising the envelope of a building.

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4.5 MERCURY

Visual assessment for the presence of mercury-containing equipment within the subject building was conducted in accessible areas only. Additional mercury or mercury-containing equipment may be present in inaccessible areas including, but not limited to, ceiling spaces, wall cavities or as internal parts of HVAC mechanisms.

4.6 OZONE-DEPLETING SUBSTANCES

Visual assessment for the presence of ODSs within the subject building was conducted in accessible areas only. Additional ODS-containing equipment may be present in inaccessible areas including, but not limited to, ceiling spaces, wall cavities and crawlspaces, was not assessed. In addition, portable equipment that may contain ODSs (refrigerators, drink coolers, etc.) was not considered as part of this assessment.

4.7 SILICA

Visual assessment for the presence of silica-containing materials within the subject building was conducted in accessible areas only. Additional potential silica-containing materials may be present in inaccessible areas including, but not limited to, ceiling spaces and wall cavities.

5.0 RESULTS

Floor plans showing locations of bulk samples collected during this assessment as well as the locations of hazardous building materials (where practical) identified through this assessment and the previous report are provided in Appendix A.

The results of the assessment for each of the considered hazardous materials are provided in the following sub-sections.

5.1 ASBESTOS

The following ACMs were identified through the previous report:

- Brown duct mastic
- Cement panel on the exterior, under the first layer of siding
- Sheet flooring in various locations

Through our review of the information provided in the previous report as well as our additional site review, additional suspected ACMs were observed and sampled. A summary of the analytical results of the additional sampled suspect ACM is provided in Table 1, below.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT



Results
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**Table 1 Summary of Additional Suspected ACM Bulk Samples
Former RCMP Detachment, Teslin, YT**

Material/Homogenous Application Description	Sample Number	Sample Location	Result (% Asbestos)
Grey texture finish on exterior foundation walls	S-01A	North exterior foundation wall	None Detected
	S-01B	East exterior foundation wall	None Detected
	S-01C	East exterior foundation wall	None Detected

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our review of the previous report, the materials presented in the Table 2, below, were identified as ACMs and/or presumed asbestos-containing materials (PACMs).




**Table 2 Summary of Identified Asbestos-Containing Materials
Former RCMP Detachment, Teslin, YT**

Identified ACM Description and Condition Information	
Brown duct mastic throughout	
% Type	0.90 % Chrysotile
Friability	Non-friable
Condition	Good
	
Cement panel exterior siding under first layer of siding around entire perimeter	
% Type	12% Chrysotile
Friability	Non-friable
Condition	Good
	

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

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**Table 2 Summary of Identified Asbestos-Containing Materials
Former RCMP Detachment, Teslin, YT**

Identified ACM Description and Condition Information	
<p>Tan sheet flooring with grey dots in the front foyer, central stairwell to basement and stairwell to cells.</p> <p>% Type: 2.6% Chrysotile</p> <p>Friability: Non-friable in situ, friable during removal</p> <p>Condition: Good in most locations – observed to be cracking at the top of the central stairwell during the current assessment</p>	
<p>Orange and yellow sheet flooring in second floor bathroom</p> <p>% Type: 21.1% Chrysotile</p> <p>Friability: Non-friable in situ, friable during removal</p> <p>Condition: Good in most locations – observed to be damaged near the floor vent during the current assessment</p>	
<p>Sealant on rooftop exhaust stack and plumbing vents. These materials were not sampled as safe access to the roof of the subject building was not available. As these materials are known to have been manufactured with asbestos, they should be presumed to be asbestos-containing unless proven otherwise by laboratory analysis.</p> <p>% Type: Unknown - PACM</p> <p>Friability: Non-Friable</p> <p>Condition: Presumed good</p>	

5.1.1 Assessment for Vermiculite Insulation

As part of the assessment, Stantec assessed the subject building for areas where vermiculite insulation, a potential ACM, would likely be present. This included making note of and assessing attic spaces, floor cavities and masonry block or brick walls, which are typical areas where vermiculite is found. No vermiculite or locations that may potentially contain vermiculite (that could not otherwise be assessed) were observed.



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5.2 LEAD

Lead is expected to be present in the following within the subject building:

- Lead-acid batteries used in emergency lighting
- Solder used in bell fittings for cast iron pipes and in electrical equipment
- Ceramic tile glaze
- Vent and pipe flashings

With respect to paint, various LCPs were identified in the previous report. An additional two paint chip samples were collected from the garage during the current assessment. A summary of the analytical results of the additional sampled paints is provided in Table 3, below. The certificate of analysis for the paint chip samples analyzed as part of the current assessment, as provided by EMSL, is attached in Appendix C.

**Table 3 Summary of Additional Suspected LCP Samples
Former RCMP Detachment, Teslin, YT**

Sample Number	Paint Colour/Application	Sample Location	Result (ppm)
Pb-01	Grey paint on concrete floor	Garage floor	7,600
Pb-02	White paint on wood panel walls	South interior garage wall	<180
NOTE: Bold, highlighted text indicates confirmed LCP			

Based on our observations and on our interpretations of the information in the previous report as well as the analytical results of the additional suspected LCP samples collected as part of this assessment the paints presented in Table 4, below, were identified as LCPs.




**Table 4 Summary of Identified LCPs
Former RCMP Detachment, Teslin, YT**

LCP Description		Photo
Paint colour	Blue	No photo available
Substrate	Cement	
Location/approx. extent	Main floor	
Lead content	8,900 ppm	
Condition	Poor (bubbling, flaking and peeling)	

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**Table 4 Summary of Identified LCPs
Former RCMP Detachment, Teslin, YT**

LCP Description		Photo
Paint colour	Grey	
Substrate	Cement	
Location/approx. extent	Basement floor	
Lead content	3,700 ppm	
Condition	Poor (bubbling, flaking and peeling)	
Paint colour	Cream	
Substrate	Wood	
Location/approx. extent	Basement walls	
Lead content	2,500 ppm	
Condition	Poor (bubbling, flaking and peeling)	
Paint colour	Blue (over red)	
Substrate	Wood	
Location/approx. extent	Exterior deck	
Lead content	1,500 ppm	
Condition	Poor (bubbling, flaking and peeling)	

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**Table 4 Summary of Identified LCPs
Former RCMP Detachment, Teslin, YT**

LCP Description		Photo
Paint colour	White	
Substrate	Wood	
Location/approx. extent	Exterior siding	
Lead content	2,600 ppm	
Condition	Poor (bubbling, flaking and peeling)	
Paint colour	Blue	
Substrate	Wood	
Location/approx. extent	Exterior trim	
Lead content	3,000 ppm	
Condition	Good	
Paint colour	Grey	
Substrate	Concrete	
Location/approx. extent	Floor throughout garage	
Lead content	7,600 ppm	
Condition	Fair (flaking in locations)	

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

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5.3 POLYCHLORINATED BIPHENYLS

No suspected PCB-containing equipment was identified through the previous report.


Additional suspected PCB-containing equipment observed during the current assessment included the following:

- Fluorescent light ballasts of the three light fixtures observed in the garage. As the ballasts were energized, they could not be inspected at the time of the assessment for health and safety reasons.

5.4 MOULD AND MOISTURE IMPACTED MATERIALS

The mould and moisture impacted building materials summarized in Table 5, below, were identified through the previous report, and were visually confirmed to remain within the building during the current assessment:

Table 5 Summary of Identified Mould and/or Moisture Impacted Materials Former RCMP Detachment, Teslin, YT.

Identified Mould and and/or Moisture-Impacted Materials Description	Photo
Suspect mould on drywall was observed throughout the basement. The suspected source of moisture is condensation due to the building not being heated and/or insufficient ventilation/dehumidification.	

5.5 MERCURY

One suspect mercury-containing thermostat on the main floor in the southwest room was identified through the previous report.

One additional mercury-containing thermostat was observed in the garage during the current assessment.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

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5.6 OZONE-DEPLETING SUBSTANCES

Building related cooling and refrigeration equipment suspected to be ODS-containing was not identified through the previous report or the current assessment.

5.7 SILICA

Silica was expected to be present in concrete floors and drywall walls observed in various locations throughout as indicated in the previous report, and visually confirmed to remain during the current assessment.

6.0 RECOMMENDATIONS

The recommendations pertaining to the demolition project requirements for each of the hazardous building materials included in this assessment are presented in the sub-sections below.

6.1 ASBESTOS

Based on the findings of our current assessment and the previous report, Stantec recommends the following with regards to managing asbestos during building demolition:

- Identified ACMs must be removed prior to the onset of activities that may disturb them, in accordance with the requirements of the Canada Labour Code, the WCB and the current version of the YT OHS Reg. It is expected that this will require the involvement of a qualified, licensed asbestos abatement contractor.
- Prior to demolition activities that would disturb them, undertake testing of PACMs that may be impacted to determine their asbestos content. Confirmed ACMs materials should be handled accordingly.
- Should a material suspected to contain asbestos fibres become uncovered during demolition activities, all work in the areas that may disturb the material should be stopped. Samples of the suspect material should be submitted for laboratory analysis to determine if asbestos fibres are present. Confirmed asbestos materials should be handled in accordance with applicable guidelines and regulations.
- Suspected ACMs deemed visually similar to the ACMs identified in this report should be considered asbestos-containing and handled as such, unless proven otherwise, through analytical testing.
- Ensure all asbestos containing waste is handled, stored, and disposed of in accordance with the requirements of the Federal Transportation of Dangerous Goods Regulation, the *Asbestos Abatement Code of Practice* (May 2012) and the Yukon Environmental Special Waste and Solid Waste Regulations document entitled *Asbestos Disposal* (2010).
- Asbestos-containing cement pipe may be present below ground—caution should be used at any time when excavation is required.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

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Until such time as the building is demolished, this report should be added to the Asbestos Management Plan for the RCMP M Division Teslin, YT site, and referred to as the current ACM record for the subject building.

6.2 LEAD

When lead-containing materials, including paints, are to be disturbed and/or removed during demolition activities, ensure compliance with the following:

- Occupational exposure control requirements of the Canada Labour Code and the WCB
- Disposal requirements of Yukon Environment—Contaminated Sites Regulations and the Yukon Government Special Waste Regulations
- Transportation requirements of the Federal Transportation of Dangerous Goods Regulation

Corrective action or remedial work on paint applications containing any concentration of lead should be undertaken in a manner so as to avoid generating fine particulate matter or dust (i.e., avoid sanding). Airborne lead dust or fumes should not exceed the WCB 8-hour Occupational Exposure Limit (OEL) of 0.15 milligram per cubic metre (mg/m³) during the removal of paints and products containing any concentration of lead. This can be achieved by:

- Providing workers with protective clothing and PPE or devices as necessary to protect the worker against the hazards to which the worker may be exposed
- Providing workers with adequate and training in the care and use of clothing, equipment or device before wearing or using it
- Wetting the surface of the materials to prevent dust emissions

Providing workers with washing facilities with clean water, soap and individual towels to properly wash prior to exiting the work area.

6.3 POLYCHLORINATED BIPHENYLS

When decommissioned, verify the PCB content of fluorescent lamp ballasts as per the Environment Canada publication *Identification of Lamp Ballasts Containing PCBs*, 1991.

Should a material suspected to contain PCBs become uncovered during renovation activities (i.e., dielectric fluids, hydraulic fluids), all work in the areas that may disturb the material should be stopped. Samples of the suspect material should be submitted for laboratory analysis to determine if PCBs are present.

PCB-containing items identified for removal and disposal should be handled, transported, stored and disposed of in accordance with the following:

- Federal Transportation of Dangerous Goods Regulation
- Federal PCB Regulations (SOR/2008-273)

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Recommendations
October 23, 2017

6.4 MOULD AND MOISTURE IMPACTED MATERIALS

When demolition work within the subject building proceeds, it is expected that mould and/or moisture impacted building materials, will be removed and disposed of during that process. Due to the actual or potential presence of mould on building materials in the building (particularly pertaining to drywall walls in the basement), and if those impacted materials are to be removed by hand, demolition workers should be notified of the potential presence of mould and be provided with respiratory protection and/or other personal protective equipment as deemed necessary for the work that they will be conducting.

6.5 MERCURY

When mercury-containing materials (e.g., fluorescent light bulbs, thermostats) are to be removed from service, ensure all mercury waste is handled, stored and disposed of in accordance with the requirements of the requirements of the Yukon Government Special Waste Regulations and the Transportation of Dangerous Goods Regulation.

Precautions should be taken if workers may potentially be exposed to mercury or mercury vapours to ensure that workers exposure levels do not exceed the occupational exposure limit of 0.05 mg/m³ as per the YT OHS Reg. This can be achieved by providing respiratory and skin protection applicable to the hazard and task to be completed.

6.6 OZONE-DEPLETING SUBSTANCES

As no equipment suspected to contain ODSs was identified, no recommendations have been provided.

6.7 SILICA

When silica-containing materials are to be disturbed during demolition activities, ensure dust control measures are employed such that airborne silica dust concentrations do not exceed the applicable exposure limits indicated in the current version of the Canada Labour Code and the YT OHS Reg. This would include, but not be limited to, the following:

- Providing workers with respiratory protection
- Wetting the surface of the materials to prevent dust emissions
- Providing workers with facilities to properly wash prior to exiting the work area
- Providing dust control to mitigate the potential for demolition dust to escape from the work area into public and/or adjacent areas

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Closure
October 23, 2017

7.0 CLOSURE

This report has been prepared by Stantec Consulting Ltd. for the sole benefit of Public Services and Procurement Canada and the Royal Canadian Mounted Police. Any use that a third party makes of this report, or any reliance on decisions to be made based on it, is the responsibility of such third parties. Stantec Consulting Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The conclusions presented represent the best judgment of the assessor based on current environmental, health and safety standards and the site conditions observed on the dates cited within this report. This report is based on, and limited by, circumstances and conditions stated herein, and on information available at the time of preparation of the report. Due to the limited nature of the investigation and the limited data available, Stantec Consulting Ltd. cannot warrant against undiscovered environmental, health and/or safety liabilities. It is possible that additional, concealed hazardous materials may become evident during renovation and/or demolition activities within the subject building.

If any conditions become apparent that differ significantly from our understanding of conditions as presented in this report, we request that we be notified immediately to reassess the conclusions provided herein.

We trust that the report meets your current requirements. Should you have any questions or concerns regarding the above, please do not hesitate to contact the undersigned.

Respectfully submitted,

STANTEC CONSULTING LTD.

Prepared by:



David Siemens, BAIE, HSE Cert., CRSP
Environmental Technologist

Reviewed by:



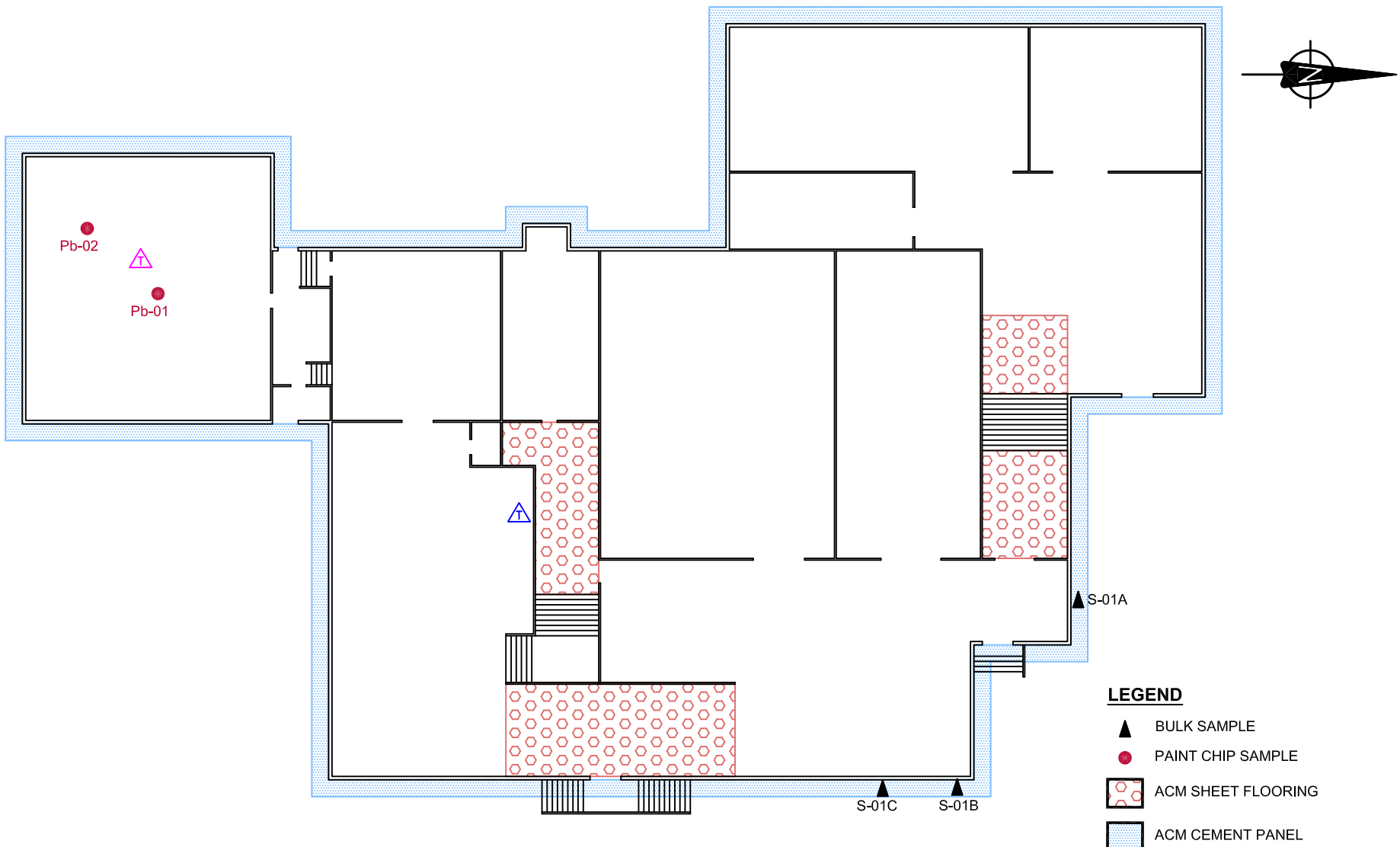
Sean Brigden, B.Sc., P.B.Dipl., CRSP
Senior Associate



Tiffany Waite, B.Sc.
Associate



APPENDIX A FLOOR PLANS

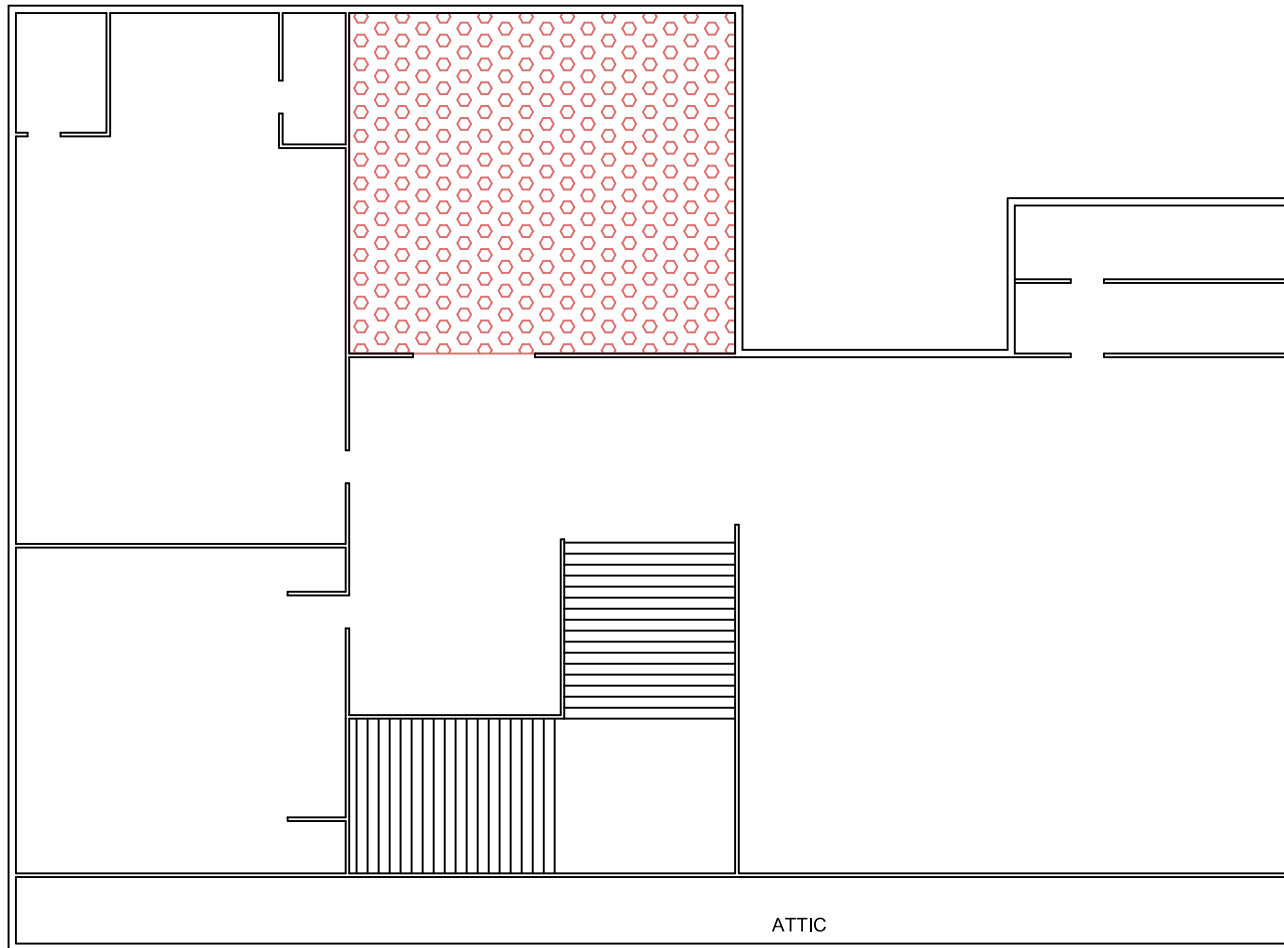


- LEGEND**
- ▲ BULK SAMPLE
 - PAINT CHIP SAMPLE
 - ◻ ACM SHEET FLOORING
 - ◻ ACM CEMENT PANEL
 - △ MERCURY-CONTAINING THERMOSTAT
 - △ SUSPECT MERCURY-CONTAINING THERMOSTAT

**BUILDING 823223: OLD DETACHMENT
MAIN FLOOR**


NOTES: 1. BROWN HVAC DUCT MASTIC THROUGHOUT IS ASBESTOS-CONTAINING.
2. THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT</p> <p>FORMER RCMP DETACHMENT</p> <p>JOHNSON ROAD, TESLIN, YT</p>	Project No.:	123220912	<p>Dwg.:</p> <p>1</p>	
	Scale:	N.T.S.		
	Date:	17/09/27		
	Dwn. By:	CD <small>SL2017090205</small> VM/DM		
Client:	PUBLIC SERVICES AND PROCUREMENT CANADA		App'd By:	TW



**BUILDING 823223: OLD DETACHMENT
SECOND FLOOR**

LEGEND

- ▲ BULK SAMPLE
-  ACM SHEET FLOORING

- NOTES:** 1. SEALANT ON ROOFTOP EXHAUST STACK AND PLUMBING VENTS IS A PRESUMED ASBESTOS-CONTAINING MATERIAL.
 2. BROWN HVAC DUCT MASTIC THROUGHOUT IS ASBESTOS-CONTAINING.
 3. THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

FORMER RCMP DETACHMENT
JOHNSON ROAD, TESLIN, YT

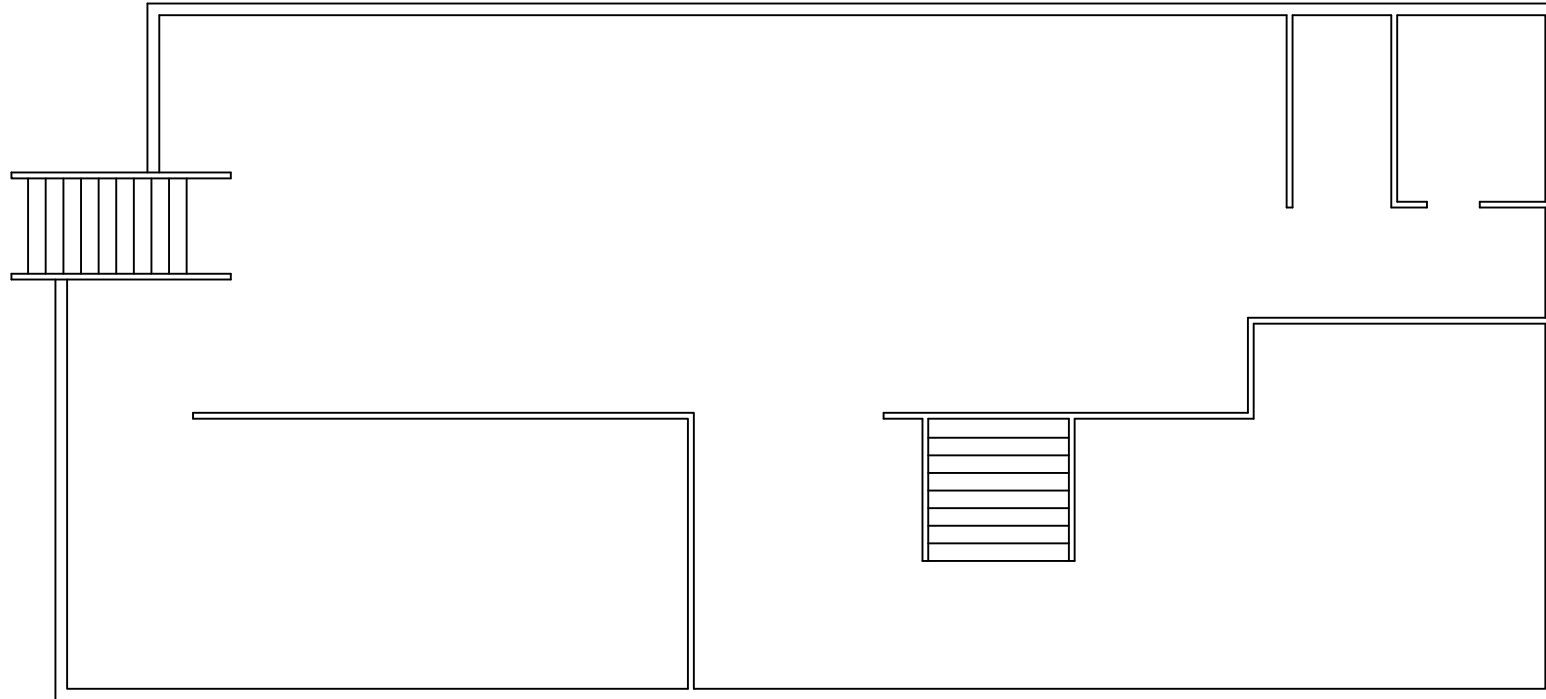
Client: PUBLIC SERVICES AND PROCUREMENT CANADA

Project No.:	123220912
Scale:	N.T.S.
Date:	17/09/27
Dwn. By:	CD <small>SL2017090206</small> <small>VM/DM</small>
App'd By:	TW

Dwg.:

2





**BUILDING 823223: OLD DETACHMENT
BASEMENT**

- NOTES:** 1. BROWN HVAC DUCT MASTIC THROUGHOUT IS ASBESTOS-CONTAINING.
 2. SUSPECT MOULD PRESENT ON WALLS THROUGHOUT BASEMENT.
 3. THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

LEGEND

- ▲ BULK SAMPLE
- PAINT CHIP SAMPLE

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

FORMER RCMP DETACHMENT
 JOHNSON ROAD, TESLIN, YT

Client: PUBLIC SERVICES AND PROCUREMENT CANADA

Project No.:	123220912
Scale:	N.T.S.
Date:	17/09/27
Dwn. By:	CD <small>SL2017090207</small> VM/DM
App'd By:	TW

Dwg.:

3



APPENDIX B
CERTIFICATE OF ANALYSIS—
SUSPECTED ACM SAMPLES



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: 289-997-4602 / (289) 997-4607
<http://www.EMSL.com> / torontolab@emsl.com

EMSL Canada Order 551709434
Customer ID: 55JACQ30Z
Customer PO: 123220912
Project ID:

Attn: David Siemens Phone: (403) 781-4143
Stantec Consulting, Ltd. Fax: (403) 716-8049
200-325 25th Street SE Collected:
Calgary, AB T2A 7H8 Received: 8/24/2017
Analyzed: 8/31/2017
Proj: Yukon RCMP- 123220912

Test Report: Asbestos Analysis of Bulk Materials for OHS Alberta Abatement Manual via EPA600/R-93/116 Method

Client Sample ID: S-01A **Lab Sample ID:** 551709434-0056

Sample Description: Former Teslin Detachment - North exterior foundation wall/Grey texture finish on foundation wall

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/31/2017	Gray	0%	100%	None Detected	

Client Sample ID: S-01B **Lab Sample ID:** 551709434-0057

Sample Description: Former Teslin Detachment - East exterior foundation wall/Grey texture finish on foundation wall

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/31/2017	Gray	5%	95%	None Detected	

Client Sample ID: S-01C **Lab Sample ID:** 551709434-0058

Sample Description: Former Teslin Detachment - East exterior foundation wall/Grey texture finish on foundation wall

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	8/31/2017	Gray	0%	100%	None Detected	

Analyst(s):

Anne Balayboa PLM (2)
Jon Delos Santos PLM (1)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.1%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Report amended: 09/01/2017 13:21:44 Replaces initial report from: 08/31/2017 17:09:46 Reason Code: Client-Change to Appearance

**APPENDIX C
CERTIFICATE OF ANALYSIS—SUSPECTED
LCP SAMPLES**



EMSL Canada Inc.

2756 Slough Street, Mississauga, ON L4T 1G3
Phone/Fax: 289-997-4602 / (289) 997-4607
<http://www.EMSL.com> torontolab@emsl.com

EMSL Canada Or 551709432
CustomerID: 55JACQ30Z
CustomerPO: 123220912
ProjectID:

Attn: **David Siemens**
Stantec Consulting, Ltd.
200-325 25th Street SE
Calgary, AB T2A 7H8

Phone: (403) 781-4143
Fax: (403) 716-8049
Received: 08/24/17 10:56 AM
Collected:

Project: **Yukon RCMP- 123220912**

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
Pb-01	551709432-0007	8/25/2017		7600 ppm
Site: Former Teslin Detachment - Garage floor Desc: Grey paint on concrete floor				
Pb-02	551709432-0008	8/25/2017		<180 ppm
Site: Former Teslin Detachment - South garage wall Desc: White paint on wood panel walls Insufficient sample to reach reporting limit.				

Rowena Fanto, Lead Supervisor
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. 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. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.
Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 08/31/2017 08:33:26



Asbestos-Containing Materials Re-Assessment

RCMP M Division Former Detachment
Johnson Road, Teslin, YT

March 2019

Prepared for:

Public Services and Procurement
Canada
Environmental Services, Pacific Region
219 – 800 Burrard Street
Vancouver, BC V6Z 2V8

Prepared by:

Stantec Consulting Ltd.
500 – 4730 Kingsway
Burnaby, BC V5H 0C6

ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

This document entitled *Asbestos-Containing Materials Re-Assessment* was prepared by Stantec Consulting Ltd. ("Stantec") for the account of Public Services and Procurement Canada (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by _____
(signature)

**Kim Wiese, Dipl.Tech.
Report Writer**

Reviewed by _____
(signature)

**Tiffany Waite, B.Sc.
Technical Reviewer**

Approved by _____
(signature)

**Sean Brigden, B.Sc., P.B.Dipl., CRSP
Senior Reviewer**



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Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Public Services and Procurement Canada (PSPC) on behalf of the Royal Canadian Mounted Police (RCMP) to conduct a re-assessment of the condition of previously identified asbestos-containing materials (ACMs) and to provide an update of the inventory of ACMs within the Former RCMP Detachment located on Johnston Road in Teslin, Yukon Territory (subject building).

The purpose of the project was to meet the requirements of the RCMP's Asbestos Management Plan (AMP) pertaining to maintaining a current record of information regarding the location(s), approximate extent(s) and condition(s) of ACMs present in the subject building.

The work was carried out in general compliance with the requirements of the current versions of the Canada Labour Code, Part II Canada Occupational Health and Safety Regulations (COHSR), the Yukon Territory Occupational Health and Safety Act and Regulations (YT OHS Reg.) and Stantec's Safe Work Practices (SWPs).

Summary of Findings

The following ACMs were identified through previous assessments, and were found to be present and remain in good condition, unless otherwise noted:

- Brown duct mastic throughout
- Cement panel on the exterior, under the first layer of siding
- Tan sheet flooring with grey dots in the front foyer, central stairwell to basement and stairwell to cells
- Orange and yellow sheet flooring in the second-floor bathroom
- Sealant on rooftop exhaust stack and plumbing vents (PACM)

During the current assessment, the following additional ACMs were identified, and were present in good condition:

- Grey textured flooring in the Garage
- Cement panel on exterior lower walls of the subject building



Abbreviations

ACM	asbestos-containing material
OHS	Occupational Health and Safety
PSPC	Public Services and Procurement Canada
RCMP	Royal Canadian Mounted Police
SWP	Safe Work Practice
YT	Yukon Territory



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Introduction
March 2019

1.0 INTRODUCTION

Stantec Consulting Ltd. (Stantec) was retained by Public Services and Procurement Canada (PSPC) on behalf of the Royal Canadian Mounted Police (RCMP) to conduct a re-assessment of the condition of previously identified asbestos-containing materials (ACMs) and to provide an update of the inventory of ACMs within the Former RCMP Detachment located on Johnston Road in Teslin, Yukon Territory (subject building).

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The site work was conducted by Kim Wiese of Stantec on October 18, 2018.

1.1 UNDERSTANDING OF THE PROJECT

ACMs and other hazardous building materials were identified within the subject building as outlined in the following reports:

- SNC Report No. 648103 entitled *Asbestos Condition Re-assessments, Teslin, Yukon Territory*, dated February 15, 2018, prepared for Public Works and Government Services Canada (SNC Report 2018)
- Stantec Report No. 123220912 entitled *Pre-Demolition Hazardous Building Materials Assessment - RCMP M Division Former Detachment, Johnson Road, Teslin, YT*, dated October 23, 2017, prepared for Public Services and Procurement Canada (Stantec Report 2017)
- Stantec Report No. 123220250 entitled *Hazardous Building Materials Assessment – RCMP Detachment, Teslin, YT*, dated November 3, 2016, prepared for Public Works and Government Services Canada (Stantec Report 2016)

Stantec understands that the RCMP has implemented an AMP for the subject building, which requires, among other things, that:

- Inventory of ACMs is "kept current"
- Inventory is to include information regarding whether the conditions of identified ACMs within the subject building are in compliance with the requirements of applicable provincial and federal regulations



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Scope
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Subsequent to the preparation of the above-noted reports, continued operations and maintenance as well as various renovations may have occurred that would have impacted the inventory or condition of ACMs. In addition, regulatory changes may have occurred that would impact management practices. As such, and as a measure of diligence in abiding by their AMP, PSPC and RCMP requested this assessment.

2.0 SCOPE

The scope of work for this assessment involved the following:

- Review of existing information, including site drawings, previous assessment and/or abatement documentation and discussions with site personnel, where available
- Visual assessment of the current condition of readily accessible previously identified ACMs
- Visual assessment for the presence of additional suspected ACMs that were not considered or sampled during previous assessments, or for materials that required additional sampling to meet current regulatory requirements/industry-accepted standards to appropriately characterize for asbestos content
- Collection of representative bulk samples from additional building materials suspected to contain asbestos fibres, or from previously assessed building materials to confirm results
- Submission of samples collected for laboratory analysis
- Evaluation and interpretation of field findings and previous analytical results to develop conclusions and recommendations pertaining to ACMs identified

2.1 LIMITATIONS

In preparation of this report, Stantec used professional judgment based on experience. The work was conducted in accordance with generally accepted professional standards. Stantec relied on information gathered during the site investigation, laboratory analytical reports and information from previous reports.

This report reflects the observations made within accessible and accessed areas of the subject building, and the results of analyses performed on the specific material sampled during the assessment and previously sampled by Stantec. Analytical results reflect the sampled material at the specific sample locations.

This report has been prepared for the exclusive use of PSPC and the RCMP for the purpose of assessing general conditions in the subject building as they pertain to previously identified ACMs as well as the additional materials sampled as outlined herein. Any use that a third party makes of this report, or reliance on, or decisions to be made on it, are the responsibility of such third parties. Stantec accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Scope
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2.1.1 Information from Previous Reports

Stantec reviewed the previous reports as outlined herein for information purposes only. For the purposes of this report and in accordance with the direction of PSPC/RCMP, where previous sampling and analytical data indicated the presence of an ACM, additional sampling was not conducted, and the material was considered to be asbestos-containing.

2.1.2 Physical and Sampling Limitations

Sampling was conducted pertaining only to those materials for which previous information regarding asbestos content did not exist, or to clarify the asbestos content of materials that were previously identified as asbestos-containing but appeared to have been replaced with new materials.

Due to limitations on the agreed to scope of work for this project as well as physical limitations in accessing concealed areas and limitations associated with working in occupied/operational spaces, there are specific limitations to the information that can be provided for ACMs, as outlined below.

- Building materials that may contain asbestos but were not accessible for sampling include, but are not limited to the following:
 - Concealed layers of roofing material
 - Sub-grade materials (e.g., asbestos cement drainage pipe)
 - Flooring material concealed beneath carpeting, ceramic tile, brickwork, hardwood flooring, and/or concealed beneath existing sub-floors
 - Drywall and/or wall plaster and associated finish materials concealed behind new and/or additional walls
 - Woven tape inside duct connection joints
 - Mechanical (e.g., piping and ducting) insulation within wall cavities, crawlspaces tunnels or other concealed spaces
 - Heating, ventilation and air conditioning (HVAC) units mechanical inner linings and/or insulation on the interior side of ducts
 - Heat protection materials inside mechanical installations and light fixtures
- In general, the assessment for the presence of additional ACMs was visual in nature, and was conducted pertaining to readily visible surfaces within accessible accessed spaces only. Additional ACMs are potentially present in inaccessible areas not assessed including, but not limited to: ceiling spaces, wall cavities, and buried materials.



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Methodology
March 2019

3.0 METHODOLOGY

The protocols and methods that were used during the various tasks associated with this project are outlined in following sub-sections.

3.1 ACM CONDITION ASSESSMENT

Stantec conducted a visual assessment of the previously identified ACM within the subject building to evaluate whether the conditions of the identified ACM were in compliance with the requirements of the COHSR, the YT OHS Reg. and RCMP's internal management practices pertaining to identifying hazards associated with asbestos in the workplace. The previously identified ACM was reviewed for the following:

- Presence of ACMs
- Condition of Identified ACMs:
 - Criteria were generally based on the June 5, 2017 Public Services and Procurement Canada “Asbestos Management Standard”, and industry standards of practice, as described in Section 3.1.1 below.
- Disturbance Potential for ACMs:
 - High (H) = areas of the building within reach (from floor level) of all building users. This includes frequently entered maintenance areas, areas within reach from a fixed ladder or catwalk, frequently entered pipe chases, etc.
 - Medium (M) = areas of the building above 8 ft, where a ladder is required to reach the ACM. Only to be used for those ACMs that are exposed to view—from the floor or ladder - without the removal or opening of other building components (ceiling tiles, access hatches, etc.).
 - Low (L) = areas of the building accessible through removal of building components. This includes attics, crawlspaces, wall and ceiling cavities.

3.1.1 Assessment of Material Condition

A visual assessment of the condition and accessibility was completed for each occurrence of ACM. A description of the criteria used in evaluating the condition and exposure risk of general ACMs is provided below.

Note that in not all types of ACMs listed below are present in the subject building. However, the condition assessment criteria for the majority of general ACM types are provided herein, for reference.



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

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3.1.1.1 Friable ACMs other than Mechanical Insulation

In evaluating the condition of friable ACMs other than mechanical insulation (e.g., spray-applied as fireproofing, texture, decorative or acoustic finishes), the following criteria apply:

Good

Surface of material shows no significant signs of damage, deterioration or delamination. Up to one percent visible damage to surface is allowed within range of GOOD. Evaluation of sprayed fireproofing requires the Assessor to be familiar with the irregular surface texture typical of sprayed asbestos products. GOOD condition includes un-encapsulated or un-painted fireproofing or texture finishes, where no delamination or damage is observed, and encapsulated fireproofing or texture finishes where the encapsulation has been applied after the damage or fallout occurred.

Poor

Sprayed materials show signs of damage, delamination or deterioration. More than one percent damage to surface of ACM spray.

In observation areas, where damage exists in isolated locations, both GOOD and POOR condition may be reported. The extent or percentage of each condition will be recorded on the Assessor's assessment form.

Fair condition is not utilized or considered as a valid criterion in the evaluation of sprayed fireproofing, sprayed insulation, or texture coat finishes.

The evaluation of ACM spray-applied as fireproofing, non-mechanical thermal insulation, or texture, decorative or acoustic finishes, which are present above ceilings, may be limited by the number of observations made, and by building components such as ducts or full height walls that obstruct the above ceiling observations. Persons entering the ceiling area are advised to be watchful for ACM DEBRIS prior to accessing or working above ceilings in areas of building with ACM, regardless of the reported condition.

3.1.1.2 Mechanical Insulation

In evaluating the condition of mechanical insulation (on boilers, breaching, ductwork, piping, tanks, equipment, etc.) the following criteria are used:

Good

Insulation is completely covered in jacketing and exhibits no evidence of damage or deterioration. No insulation is exposed. Includes conditions where the jacketing has minor surface damage (i.e., scuffs or stains), but the jacketing is not penetrated.



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

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Fair

Minor penetration damage to jacketed insulation (cuts, tears, nicks, deterioration or delamination) or undamaged insulation that has never been jacketed. Insulation is exposed but not showing surface disintegration. The extent of missing insulation ranges should be minor to none.

Poor

Original insulation jacket is missing, damaged, deteriorated or delaminated. Insulation is exposed and significant areas have been dislodged. Damage cannot be readily repaired. The evaluation of mechanical insulation may be limited by the number of observations made and building components such as ducts or full height walls that obstruct observations. In these circumstances, it is not possible to observe each foot of mechanical insulation from all angles.

3.1.1.3 Non-Friable and Potentially Friable Materials

Non-friable materials generally have little potential to release airborne fibres, even when damaged by mechanical breakage. However, some non-friable materials, i.e., exterior asbestos cement products, may have deteriorated so that the binder no longer effectively contains the asbestos fibres. In such cases of significantly deteriorated non-friable material, the material will be treated as a friable product, and evaluated per the above criteria.

3.2 ADDITIONAL SUSPECTED ACMS

Stantec reviewed the information provided in the previous reports as outlined herein, and conducted a visual assessment of readily accessible areas for the presence of additional suspected ACMS that were not considered or sampled as part of those reports, as well as for materials that required additional sampling to meet current regulatory requirements/industry-accepted standards to appropriately characterize for asbestos content.

3.2.1 Supplemental Sampling

Asbestos-containing materials are grouped into two classifications, friable and non-friable materials. Friable ACMS are those that can easily be crumbled or broken apart by mere hand pressure. When these materials break apart asbestos fibres can then be released into the atmosphere. Non-friable ACMS are materials that by the nature of their manufacturing and/or construction do not readily allow the release of asbestos fibres. Some non-friable materials such as plaster, drywall joint compound and ceiling tiles that are considered to be non-friable in an undisturbed state can more readily release fibres when damaged or disturbed.



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Methodology

March 2019

The common use of friable ACMs in construction ceased voluntarily in the mid-1970s; however, the spray application of asbestos-containing fireproofing was not prohibited until 1986. A material known as vermiculite, which was commonly used for insulation within attics, floor spaces or within masonry block wall systems and may be contaminated with asbestos due to its production processes, was used into the mid-1990s. In addition, asbestos cement products and some non-friable sealant products currently used in the construction of buildings may still contain asbestos.

The presence of asbestos in federal workplaces and pertaining to federally regulated workers is governed by the COHSR. According to the COHSR, ACM means:

- Any article that is manufactured and contains 1% or more asbestos (by weight) at the time of manufacture, or any material that contains 1% or more asbestos when tested in accordance with accepted methods.

The presence of asbestos in the workplace in the Yukon pertaining to territorially regulated workers is governed by the Yukon Workers' Compensation Health and Safety Board (WCB), with provisions published in the current version of the YT OHS Reg. According to current version of the YT OHS Reg., ACM means:

- Any material which is found to contain any asbestos.

As both federally regulated workers and territorially regulated workers (e.g., contractors) are expected to carry out work activities within the subject buildings, and as the most recent updates to the COHSR make it more prescriptive pertaining to management, handling removal and/or disposal of asbestos-containing materials (and generally include the requirements noted in the YT OHS Reg.), supplemental sampling/assessment was conducted to meet the requirements of the current version of the COHSR, with the following exception:

- Definition of ACM will abide by that utilized by the YT OHS Reg. (any material containing any asbestos), as this definition is more stringent

Based on this criterion, a visual assessment of accessible areas was undertaken in order to check for the presence of additional suspected ACMs, or for materials requiring additional sampling to further characterize, based on a review of previous reports.

Multiple additional samples were collected from each "homogenous application" of observed suspected ACMs (materials suspected to contain asbestos that are uniform in material type, colour, texture application and estimated installation date) and submitted to EMSL Canada Inc. (EMSL) in Mississauga, Ontario for analysis of asbestos content using polarized light microscopy (PLM) with dispersion staining, in accordance with the United States Environmental Protection Agency (EPA) 600/R-93/116 method.

The number of additional samples to be collected for each homogenous application of a suspected ACM was based on the recommendations provided in the Asbestos Guide along with the assessor's experience and understanding of the consistency of that building material's application.



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Findings
March 2019

EMSL's analytical laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

3.2.2 Asbestos Sampling Quality Assurance/Quality Control

Sampling activities pertaining to asbestos were conducted in accordance with Stantec's SWPs, which take into account current provincial and/or territorial regulations pertaining to such work (i.e., sampling procedures, required number of samples and laboratory analytical procedures).

Representative bulk samples were collected of accessible suspect ACMs in sufficient quantities for laboratory analysis. Suspect ACM samples were sealed in polyethylene zip-lock bags labeled with the sample number, suspect material description, and sample location. As part of sampling procedures, sampling tools were cleaned between sample collection events to avoid the potential for cross-contamination of samples.

All sample bags were compiled in order and placed into a single container accompanied with a chain of custody form outlining the project information, date, building location, number of samples, and sample description. Samples were submitted to the analytical laboratory in a sealed container via courier.

4.0 FINDINGS

4.1 ACM CONDITION ASSESSMENT

The findings pertaining to the current condition of previously identified ACMs are summarized in the table provided in Appendix A, which includes the following:

- Summary of locations, types and asbestos content of previously identified ACMs
- Statements of current condition of previously identified ACMs
- Observations of note pertaining to previously identified ACMs
- Recommendations for action, where required

4.2 ADDITIONAL SAMPLING

A summary list of the additional bulk samples collected by Stantec, including a description of the material, sampling location and laboratory test results is provided in Appendix C. A copy of the Laboratory Certificate of Analysis for bulk samples analyzed is provided in Appendix D.

Floor plans showing the locations of supplemental samples collected during this assessment as well as identified hazardous building materials (where practical) are provided in Appendix B.



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Findings

March 2019

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of the analytical results of additional suspected ACMs collected through this assessment as well as our review of the previous documentation reviewed as outlined herein, the materials presented in the table in Appendix E were identified as additional ACMs. The following information is included for each additional identified ACM:

- Type of material that contains asbestos
- Location/approximate extent of the ACM within the building
- Asbestos type and percentage identified
- Friability
- Condition
- Representative photographs, where available.

4.2.1 Presumed Asbestos-containing materials

One additional presumed asbestos-containing flex duct connector (present between a main air handling unit and primary duct) was observed to be present in the furnace room. This additional presumed ACM (PACM) was in good condition and was not sampled to preserve its integrity. As this material is known to have been manufactured with asbestos, it should be presumed to be asbestos-containing unless proven otherwise by laboratory analysis.



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Recommendations

March 2019

5.0 RECOMMENDATIONS

Identified ACMs in good condition should continue to be managed in place in accordance with the provisions of the AMP. Additional general recommendations pertaining to managing ACMs in the workplace are provided below:

- Damaged ACMs should be abated by appropriately trained personnel (e.g., asbestos abatement contractor personnel), in accordance with the requirements of the COHSR, BC Reg. 296/97 and the Asbestos Guide. This would involve the following:
 - Remove damaged textured flooring from the Garage (approximately 50 m²)
- Prior to renovation or demolition activities that would disturb them, undertake testing of PACMs that may be impacted to determine their asbestos content. Confirmed asbestos materials should be handled accordingly.
- ACMs that may be impacted during renovations and/or demolition activities should be removed prior to the renovation and/or demolition activities.
- Should a material suspected to contain asbestos fibres become uncovered during renovation or demolition activities, all work in the areas that may disturb the material should be stopped. Samples of the suspect material should be submitted for laboratory analysis to determine if asbestos fibres are present. Confirmed asbestos materials should be handled in accordance with applicable guidelines and regulations.
- Suspected ACMs deemed visually similar to the ACMs identified in this report should be considered asbestos-containing and handled as such, unless proven otherwise, through analytical testing.
- Asbestos-containing cement pipe may be present below ground—caution should be used if excavation is required.
- If disturbance to non-friable materials with trace asbestos content is required, consider submitting a request for approval for deviation from the YT OHS Reg., to allow for the disturbance to occur without asbestos control provisions.
- Ensure asbestos containing waste is handled, stored, transported, and disposed of in accordance with the requirements of the following:
 - Federal Transportation of Dangerous Goods Regulation
 - Yukon Environment
 - o Contaminated Sites Regulations
 - o Special Waste Regulations, including the provisions of the bulletin entitled “Asbestos Disposal” (2010).
- This report should be added to the AMP and referred to as the current ACM record.



ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Closure
March 2019

6.0 CLOSURE

This report has been prepared for the sole benefit of Public Services and Procurement Canada and the Royal Canadian Mounted Police. Any use which a third party makes of this report, or any reliance on decisions based on it, is the responsibility of such third parties. Stantec Consulting Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The information and conclusions contained in this report are based upon work undertaken by trained professionals and technical staff in accordance with generally accepted engineering, scientific and occupational health and safety practices current at the time the work was performed. Conclusions presented in this report should not be construed as legal advice.

The conclusions presented in this report represent the best technical judgment of Stantec Consulting Ltd. based on the data obtained from the work.

The conclusions are based on the site conditions encountered by Stantec Consulting Ltd. at the time the work was performed at the specific assessment and/or sampling locations, and can only be extrapolated to an undefined limited area around these locations. The extent of the limited area depends on building construction and conditions, weather, building usage and other factors. Due to the nature of the investigation and the limited data available, Stantec Consulting Ltd. cannot warrant against undiscovered environmental or health and safety liabilities.

If any conditions become apparent that differ significantly from our understanding of conditions as presented in this report, we request that we be notified immediately to reassess the conclusions provided herein.

We trust that the above is satisfactory for your purposes at this time. Should you have any questions or concerns, or require additional information, please do not hesitate to contact the Stantec Project Manager at your convenience.



APPENDIX A
Summary of Findings
Assessment of Previously Identified ACMs

ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Appendix A Summary of Findings: Assessment of Previously Identified ACMs
March 2019

Appendix A SUMMARY OF FINDINGS: ASSESSMENT OF PREVIOUSLY IDENTIFIED ACMs

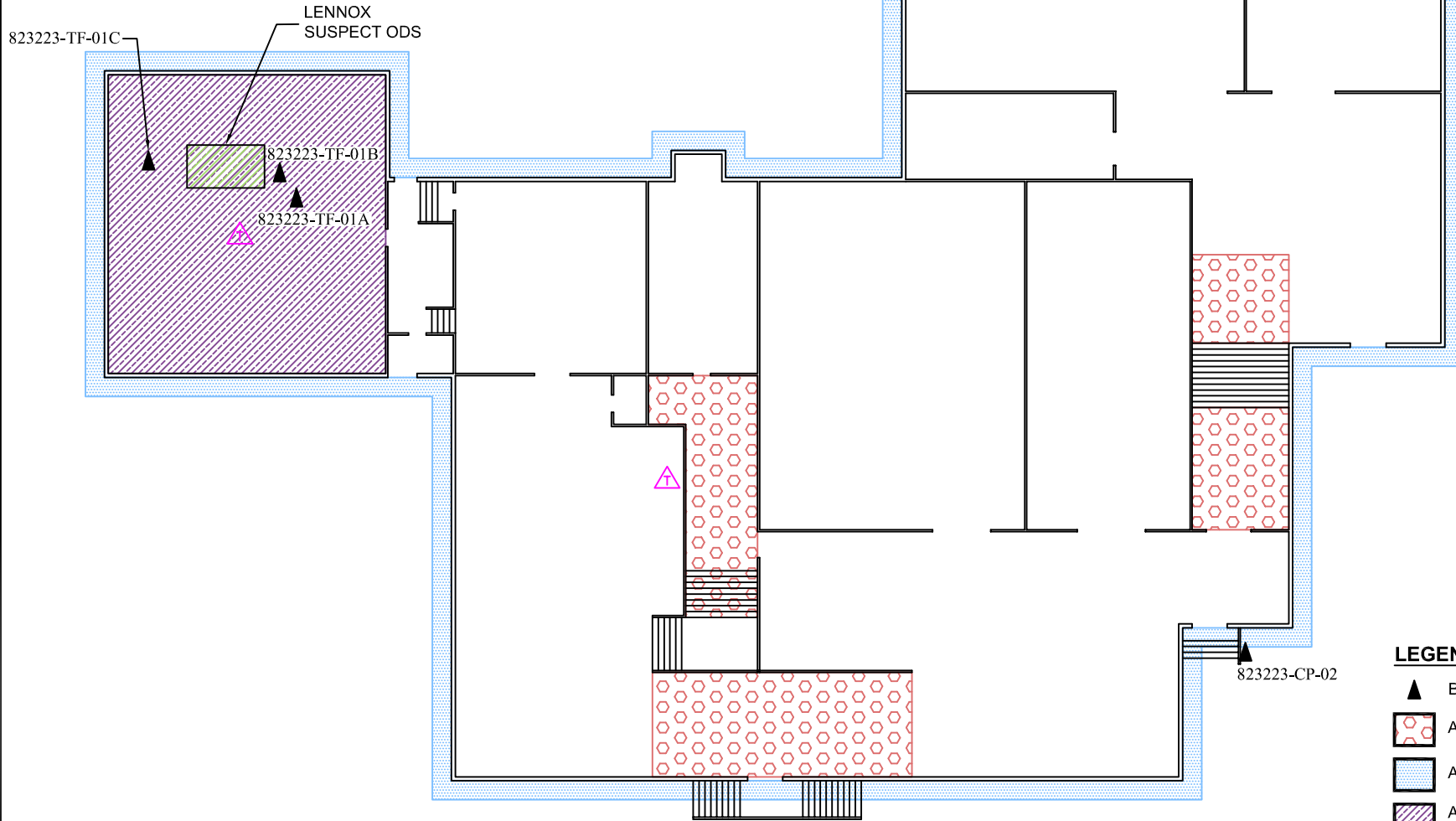
**Table A-1 Summary of Findings—Assessment of Previously Identified ACMs
Former RCMP Detachment, Teslin, YT**

Location	ACM Type	Content & Type of Asbestos	Friable or Non-Friable	ACM Condition	Observations or Notes	Recommended Action
Throughout	Brown duct mastic	0.90% Chrysotile	Non-friable	Good	N/A	Manage in place
Exterior siding under first layer of siding	Cement panel	12% Chrysotile	Non-friable	Good	N/A	Manage in place
Front foyer, central stairwell to basement and stairwell to cells	Tan sheet flooring with grey dots	2.6% Chrysotile	Non-friable in situ, friable during removal	Good	N/A	Manage in place
Second floor bathroom	Orange and yellow sheet flooring	21.1% Chrysotile	Non-friable in situ, friable during removal	Good	N/A	Manage in place
Roof	Sealant on rooftop exhaust stack and plumbing vents	Unknown—PACM	Non-friable	Presumed good	These materials were not sampled as safe access to the roof of the subject building was not available. As these materials are known to have been manufactured with asbestos, they should be presumed to be asbestos-containing unless proven otherwise by laboratory analysis.	Manage in place



APPENDIX B

Floor Plans

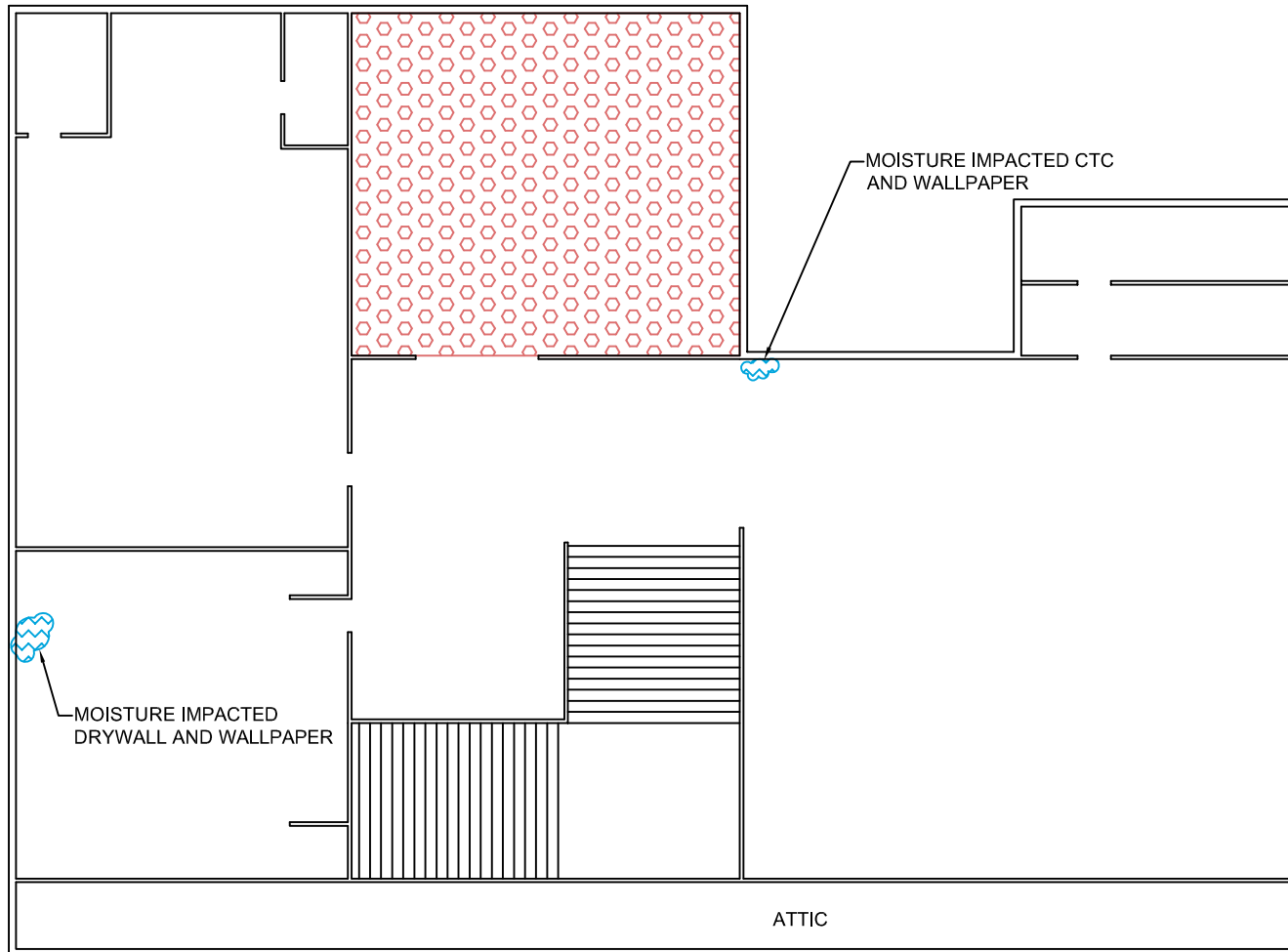


- LEGEND**
- BULK SAMPLE
 - ACM SHEET FLOORING
 - ACM CEMENT PANEL
 - ACM TEXTURED FLOORING
 - SUSPECT ODS-CONTAINING EQUIPMENT
 - MERCURY-CONTAINING THERMOSTAT

**BUILDING 823223: OLD DETACHMENT
MAIN FLOOR**



NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP TESLIN OLD DETACHMENT JOHNSON ROAD, TESLIN, YT</p>	Project No.: 123221201-200.100	Dwg.:	<p style="font-size: 2em; font-weight: bold;">1</p>
	Scale: N.T.S.		
	Date: 18/11/10		
	Dwn. By: CD <small>SL2018110027</small> VM/DM		
Client: PUBLIC SERVICES AND PROCUREMENT CANADA	App'd By: TW		




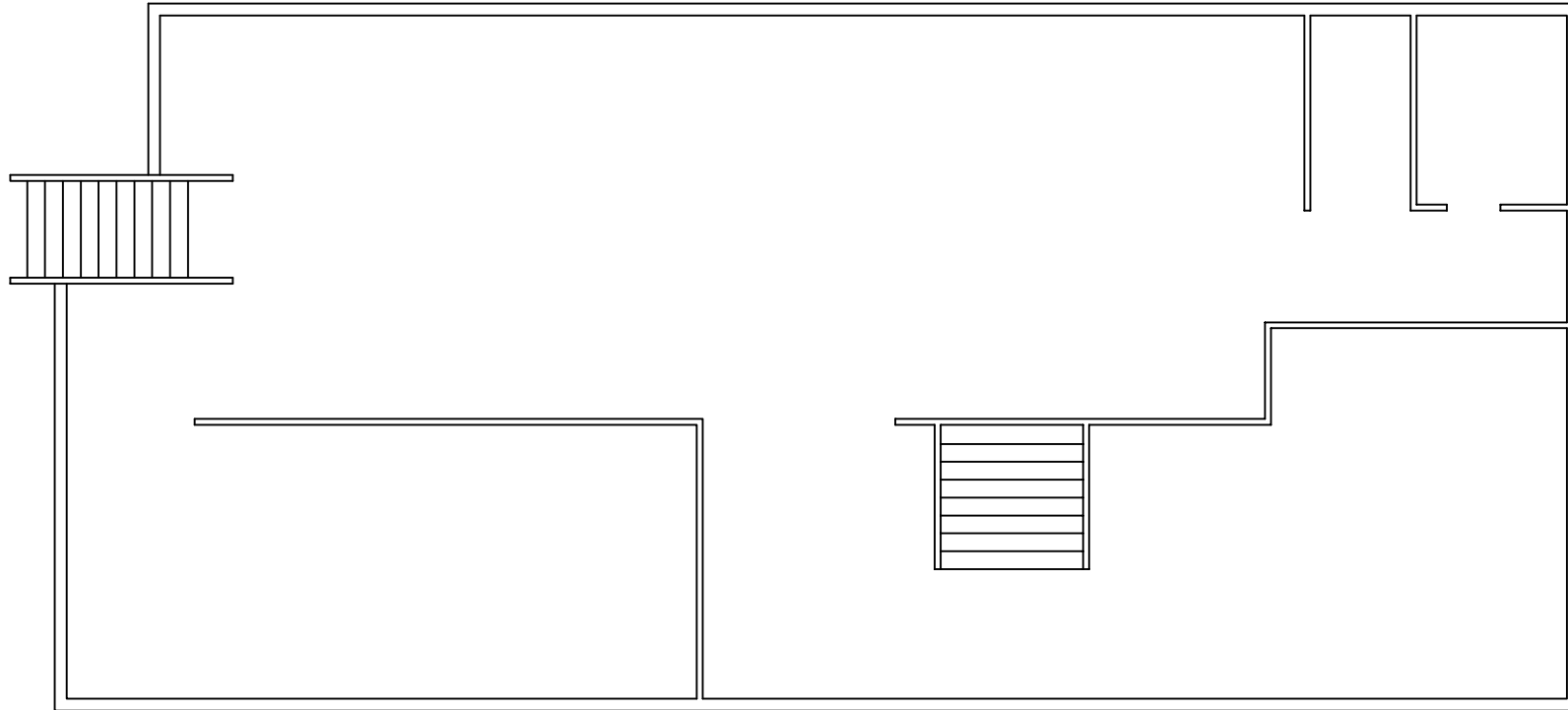
**BUILDING 823223: OLD DETACHMENT
SECOND FLOOR**

LEGEND

-  ACM SHEET FLOORING
-  MOISTURE IMPACTED DRYWALL AND WALLPAPER

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP TESLIN OLD DETACHMENT JOHNSON ROAD, TESLIN, YT</p>	Project No.: 123221201-200.100	2	
	Scale: N.T.S.		
	Date: 18/11/10		
	Dwn. By: CD <small>SL2018110028</small> VM/DM		
Client: PUBLIC SERVICES AND PROCUREMENT CANADA	App'd By: TW		



**BUILDING 823223: OLD DETACHMENT
BASEMENT**

- NOTES:** 1. BROWN HVAC DUCT MASTIC THROUGHOUT IS ASBESTOS-CONTAINING.
 2. SUSPECT MOULD PRESENT ON WALLS THROUGHOUT BASEMENT.
 3. THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>RCMP TESLIN OLD DETACHMENT JOHNSON ROAD, TESLIN, YT</p>	Project No.: 123221201-200.100	<p>Dwg.: 3</p>	
	Scale: N.T.S.		
	Date: 18/11/10		
	Dwn. By: CD <small>SL2018110029</small> VM/DM		
Client: PUBLIC SERVICES AND PROCUREMENT CANADA	App'd By: TW		

APPENDIX C

Summary of Results of Analysis of Bulk Samples for Asbestos

ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Appendix C Summary of Results of Analysis of Bulk Samples for Asbestos
March 2019

Appendix C SUMMARY OF RESULTS OF ANALYSIS OF BULK SAMPLES FOR ASBESTOS

**Table C-1 Summary of Results of Analysis of Bulk Samples for Asbestos
Former RCMP Detachment, Teslin, YT**

Material/Homogenous Application Description	Sample number	Sample Location	Result (% Asbestos)
Grey textured flooring in the garage	823223-TF-01A	Garage, floor	1.1% Chrysotile
	823223-TF-01B	Garage, floor	Positive Stop (Not Analyzed)
	823223-TF-01C	Garage, floor	Positive Stop (Not Analyzed)
Cement panel, low walls of the subject building	823223-CP-01	Exterior lower walls	25% Chrysotile

NOTE:
Bold, highlighted text indicates confirmed ACM



APPENDIX D

**Laboratory Analytical Report
Asbestos: Polarized Light Microscopy**



EMSL Canada Inc.

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<http://www.EMSL.com> / vancouverlab@EMSL.com

EMSL Canada Order 691802848
Customer ID: 55JACQ30L
Customer PO: 123221201
Project ID:

Attn: Kim Wiese Phone: (604) 412-3004
Stantec Consulting Ltd. Fax:
500 - 4730 Kingsway Collected:
Burnaby, BC V5H 0C6 Received: 10/24/2018
Analyzed: 10/30/2018
Proj: 123221201 / TESLIN - OLD DETACHMENT (823223)

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: 823223-TF-01A **Lab Sample ID:** 691802848-0001

Sample Description: GARAGE, FLOOR/GREY TEXTURED FLOORING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	10/30/2018	Gray	0.0%	98.9%	1.1% Chrysotile	

Client Sample ID: 823223-TF-01B **Lab Sample ID:** 691802848-0002

Sample Description: GARAGE, FLOOR/GREY TEXTURED FLOORING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	10/30/2018					Positive Stop (Not Analyzed)

Client Sample ID: 823223-TF-01C **Lab Sample ID:** 691802848-0003

Sample Description: GARAGE, FLOOR/GREY TEXTURED FLOORING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	10/30/2018					Positive Stop (Not Analyzed)

Client Sample ID: 823223-CP-01 **Lab Sample ID:** 691802848-0004

Sample Description: EXTERIOR LOW WALLS/CEMENT PANEL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	10/30/2018	Gray	0%	75%	25% Chrysotile	

Analyst(s):

Chloe Huang PLM (1)
Kathleen Cruz PLM Grav. Reduction (1)

Reviewed and approved by:

Nicole Yeo, Laboratory Manager
or Other Approved Signatory

None Detected = <0.1%. EMSL maintains liability limited to cost of analysis. 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 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Burnaby, BC

Initial report from: 10/30/2018 16:31:47

APPENDIX E



Summary of Identified Asbestos-Containing Materials

ASBESTOS-CONTAINING MATERIALS RE-ASSESSMENT

Appendix E Summary of Identified Asbestos-Containing Materials
 March 2019

Appendix E SUMMARY OF IDENTIFIED ASBESTOS-CONTAINING MATERIALS

**Table E-1 Summary of Identified Asbestos-Containing Materials
 Former RCMP Detachment Teslin, YT**

Identified ACM Description and Condition Information	
Grey textured flooring in the Garage.	
% Type	1.1% Chrysotile
Friability	Non-friable
Condition	Poor
	
Cement panel on exterior lower walls of the subject building	
% Type	25% Chrysotile
Friability	Non-friable in situ
Condition	Good
	



HAZARDOUS MATERIALS LIMITED REPORT

RCMP Detachment House, Teslin, Yukon



Prepared by: Antiquity Environmental Consulting Ltd.

Reviewed by: Trevor Getty; CIH, ROH, CRSP, CPHI (c), ABI

August 2019

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1.0 SUMMARY

Antiquity Environmental Consulting Ltd. (AECL) was retained by the Air Care Yukon (the client) to conduct a hazardous material inspection (HMI) at the RCMP Detachment House in Teslin Whitehorse (the Site).

AECL inspected the interior of RCMP Detachment House, which spans approximately 2500 ft². AECL staff collected sixty-seven (67) bulk samples from the building for asbestos analysis; of these sixty-seven (67) samples, fifteen (15) was confirmed to contain asbestos.

AECL staff collected thirty-four (34) bulk samples from the building for lead analysis; of thirty-four (34) samples, twenty-three (23) were confirmed to have significant levels of lead.

A summary table of positive asbestos-containing materials (Table 1) and lead containing surface coatings (Table 2) have been provided below;

TABLE 1 – SUMMARY OF ASBESTOS-CONTAINING MATERIALS

Sample ID	Material Type	Location	Asbestos Content	Abatement Risk Level
sM-1	Vinyl Sheet, backing	Main Stairs, Floor	Chrysotile 30%	High
M-2	Vinyl Sheet, backing	Main Stairs, Floor	Chrysotile 30%	High
M-31	Vinyl Sheet, backing	Room 5	Chrysotile 30%	High
M-32	Vinyl Sheet, backing	Room 5	Chrysotile 30%	High
37	Vinyl Sheet backing	Upstairs, Top Layer Floor	Chrysotile 30%	High
38	Vinyl Sheet backing	Main Floor, West Staircase, Floor	Chrysotile 30%	High
E-1	Cementitious Board	Exterior House Siding	Chrysotile 35%	High
E-2	Cementitious Board	Exterior House Siding	Chrysotile 35%	High
E-3	Cementitious Board	Exterior House Siding	Chrysotile 35%	High

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E-4	Cementitious Board	Exterior Garage, Siding	Chrysotile 35%	High
E-5	Cementitious Board	Exterior Garage, Siding	Chrysotile 35%	High
E-6	Cementitious Board	Exterior Garage, Siding	Chrysotile 35%	High
47	Filler Compound	Room U-8 Ceiling	Chrysotile 1%	Moderate
48	Filler Compound	Room U-8 Ceiling	Chrysotile 1%	Moderate
49	Filler Compound	Room U-8 Ceiling	Chrysotile 1%	Moderate



TABLE 2 – SUMMARY OF XRF METAL CONCENTRATION ANALYSIS RESULTS

Sample IDs	Area	Location	Material Type	Colour	Lead Conc. (ppm)
Pb-20	Back Stairwell	Wall	Paint chip	Grey	1873
Pb-23	Back Stairwell	Wall	Paint Chip	White	321
Pb-24	Back Stairwell	Wall	Paint chip	White	434
Pb-25	Back Entrance	Door	Paint Chip	White	568
Pb-26	Back Entrance	Door	Paint Chip	White	734
Pb-29	Entrance	Wall	Paint Chip	Beige	554
Pb-30	Entrance	Wall	Paint Chip	Beige	528
Pb-42	Right Hand Panel	Wall	Paint Chip	Beige	100
Pb-43	Right Hand Panel	Wall	Paint Chip	Beige	98
Pb-44	Right Hand Panel	Wall	Paint Chip	Beige	90
B-1	Cell	Floor	Paint Chip	Grey	1515
B-2	Cell	Floor	Paint Chip	Grey	1576
B-6	Cell	Wall	Paint Chip	White	248
B-7	Cell	Wall	Paint Chip	White	366

U7 Pb-41	Unit 7	Wall	Paint Chip	Green	592
U7 Pb-42	Unit 7	Wall	Paint Chip	Green	477
U7 Pb-43	Unit 7	Ceiling	Paint Chip	Green	428
U7 Pb-44	Unit 7	Ceiling	Paint Chip	Green	512
Pb-50	Room 9	Window	Paint Chip	Grey	711
Pb-51	Room 9	Window	Paint Chip	Grey	1005
Pb-15	Interior	Wall	Paint Chip	Beige	179
Pb-16	Interior	Wall	Paint Chip	Beige	225
UT-9b 45-46	Window	Door	Paint Chip	Grey	716

2.0 INTRODUCTION

The purpose of the HMI is to assemble a quantitative inventory of potentially hazardous substances at the site to facilitate future demolition or renovation. The HMI Survey included the following hazardous materials:

- Asbestos Containing Building Materials (ACMs);
- Ozone Depleting Substances (ODS);
- Polychlorinated Biphenyls (PCBS);
- Mercury Containing Equipment (MCE);
- Radon;
- Radioactive Sensors;
- Urea Formaldehyde Foam Insulation;
- Mould or Microbial Contamination; and
- Other Chemicals.

An HMI identifies the hazardous materials present, their locations, and general quantities. The information provided in this assessment will allow contractors involved in demolition or renovation activities to take appropriate steps to control the potential exposure of hazardous materials to workers and the general public.

During the HMI, Antiquity staff collected samples of potential asbestos-containing materials, which were submitted for laboratory analysis. Antiquity also made visual observations of any potential ozone depleting substances (ODS), polychlorinated biphenyls (PCBs), mercury containing equipment, radon, radioactive sensors, urea formaldehyde foam insulation (UFFI), mould growth, or other chemicals for the purpose of identifying substances which may be considered hazardous.

2.1 REGULATORY REQUIREMENTS

In the province of B.C., asbestos in buildings and/or workplaces is regulated under *Occupational Health and Safety Regulation* (BC Reg.) 296/97, as amended. This regulation outlines general requirements for asbestos including mandatory identification, classification, procedures, and monitoring of asbestos-containing materials (ACMs) in the workplace. B.C. Reg. 296/97, as amended, defines ACM (other than vermiculite) as containing 0.5% or more asbestos by weight as determined by laboratory analysis. The Workers' Compensation Board of B.C. (*WorkSafeBC*) has also published a guidance document entitled [Safe Work Practices for Handling Asbestos \(2017 edition\)](#), which outlines acceptable standards and procedures for the management of asbestos in B.C.

Furthermore, waste asbestos must be transported according to the Federal [Transportation of Dangerous Goods Act \(TDG\) and Regulations](#), and transported and managed according to B.C.'s [Environmental Management Act](#), the [Hazardous Waste Regulation](#) (HWR), and any applicable local government landfill rules.

In the province of B.C., lead containing coatings are regulated under *Occupational Health and Safety Regulation* (BC Reg.) Section 6.59 - 6.69. The Workers' Compensation Board of B.C. (*WorkSafeBC*) has also published a guidance document entitled [Lead Containing Paints and Coatings "Preventing Exposure in the Construction Industry \(2017 edition\)](#), which outlines acceptable standards and procedures for the management of lead in B.C. Furthermore, waste lead containing coatings must be transported according to the Federal *Transportation of Dangerous Goods Act (TDG) and Regulations* and transported and managed according to B.C.'s *Environmental Management Act (EMA)*, the *Hazardous Waste Regulation (HWR)*, and any applicable local government landfill rules.

In the province of B.C., Ozone Depleting Substances (ODS), Polychlorinated Biphenyls (PCBs) and Mercury containing equipment (MCE) in structures are regulated under Part 5 of the [Occupational Health and Safety Regulations](#) (BC Reg.). Regulations outline handling and exposure limits for each of the substances as well as responsibilities of the employer and employee.

Further, all environmental matters pertaining to waste including hazardous building materials identified are subject to the BCMOE regulations under the EMA and the Federal TDG regulations including transport and disposal to a licensed facility. Proper manifesting of materials is required prior to the materials leaving the site.

A management plan (MP) for hazardous materials can be established if hazardous materials identified are to remain in-place. For example, lead paint and asbestos containing materials present at a project site may be completely removed or remain on-site encapsulated, or enclosed and managed under a Management Plan (MP) using procedures similar to that described in the *WorkSafeBC* guidance documents. The MP outlines the materials, their location, condition and responsibilities of both the employer and employees.

Most MPs are written for older sites that contain hazardous materials in varying amounts and conditions. If a survey documents the presence of asbestos or lead containing material that are in a friable or poor condition, these

materials are usually removed because the system is no longer in use and continued presence of these materials requires long term inspection and maintenance schedules.

2.2 PREVIOUS REPORTS

No previous HMI reports were available for Antiquity staff review during the time of the survey.

3.0 SITE REVIEW

AECL staff attended the site on Thursday August 22nd, 2019. AECL completed a visual review and testing for suspect asbestos building materials from the interior and exterior of the house and lead surface coatings from the interior of the house. It is our understanding that the house is to undergo demolition.

3.1 DESCRIPTION OF SURVEY AREA

The are of work is an approximate 2500 ft² and is a rancher style house with a second floor. The Basement of the property contains concrete floor and drywall and wood panels on concrete walls with tiles on the ceiling.

The Main Floor consisted of a kitchen, bedrooms, bathroom, and living room. The Flooring consisted of Sheet Flooring, vinyl tile, linoleum, and carpet on wood, bathroom had ceramic tile around and in bathtub. while other walls consisted of drywall and wood paneling. Ceiling consisted of drywall and texture coat.

The second floor consisted of bedrooms with drywall on walls and ceiling with some texture coat, and a bathroom with drywall on the walls and ceiling as well as ceramic tile with sheet flooring.

3.2 ON-SITE OBSERVATIONS

The following observations were noted on site:

- Fluorescent light fixtures were present on site;
- Vermiculite was observed on site in the attic;
- Window Putty was observed on site;
- Smoke detectors were observed on site;
- One oil tank was observed on site;
- Roof was observed as Asphalt Shingles;
- A thermostat was observed on site;

4.0 ASBESTOS

Bulk samples of potential ACMs were collected for analysis during the HMI. Coast BC Hazmat Inspections Inc. performed all bulk sample analysis of potential ACMs.

WorkSafeBC recommends a minimum number of bulk samples to be collected for each area of homogeneous material to confirm the presence or absence of asbestos under Polarized Light Microscopy (PLM) analysis.

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Sampling required a small amount of material to be removed either from a damaged section of suspect material or cut from intact material and then repaired by sealing with tape to prevent fibre release. The collected samples were placed in plastic bags and sealed for shipment to Coast BC Hazmat Inspections Inc. A formal chain of custody procedure was maintained between Antiquity and Coast BC Hazmat Inspections Inc. during sample transport. Samples were then analyzed by Coast BC Hazmat Inspections Inc. following NIOSH 9002 analytical procedures.

When conducting an HMI, it is standard practice to assume that certain building materials potentially contain asbestos. Depending on the material, this assumption is undertaken for one or more of the following reasons:

- The material is inaccessible (e.g., underground piping);
- There is an inherent danger in sampling the material (e.g., energized equipment);
- Limited sampling may not adequately reflect the extent of asbestos content; and
- Time constraints (i.e., attempting to isolate all possible ACMs within a building is not practical).

Therefore, for the purpose of this survey, Antiquity has assumed that the following materials are asbestos containing, **where present**:

- Asbestos cement products (i.e., transite board);
- HVAC duct tape;
- Roof mastic and shingles
- Mastic in any through wall and/or roof penetrations, on sinks, and behind older style tub surrounds (i.e. barker board);
- Drainpipe joint packing;
- Bell and spigot joint gaskets;
- Fire doors;
- Fire stop;
- High voltage wiring;
- Mechanical packing and gaskets.

Materials suspected to contain asbestos were delineated in each respective homogenous area (i.e., surfacing materials, thermal system insulation, miscellaneous materials, etc.) for sampling. Bulk samples of potential ACMs were submitted to BC Hazmat Inspections Inc. for analysis based on NIOSH 9002 analyzed on July 15th, 2019. Upon completion of the analysis, BC Hazmat Inspections Inc. provided Antiquity with the laboratory results. Floor plans are presented in [Appendix A](#). [Appendix B](#) presents the results in addition to a copy of the laboratory cover letter.

5.0 METALS

Lead-based surface coatings are confirmed present:

- **Paint chips**

Thirty-five (35) samples were collected from the building, which were submitted for lead content analysis (which included other metals). The samples were taken at the building on site and transported via formal chain of

custody process to Coast BC Hazmat Inspections in Surrey, British Columbia for lead content analysis using EPA Method 6200; Metals in Soil Analysis Using Field Portable X-ray Fluorescence.

An excerpt of the analysis results was provided in a previous section of this report (end of [Section 1.0](#)).

WSBC defines lead-containing surface coating materials in accordance with the Canadian Ministry of Health's Hazardous Product Act and the Surface Coating Materials Regulations (SOR/2005-109) under the Federal Hazardous Products Act. These Acts limit the definition of lead-based paint to a "paint or other similar material that dries to a solid film that contains over 90 milligrams per kilogram (mg/kg; or 0.009%) dry weight of lead." Milligrams per kilogram is equivalent to parts per million (ppm). WSBC also suggests that the improper removal of paint containing more than 600 mg/kg or 600-ppm lead may result in airborne lead concentrations that exceed half of the occupational exposure limit (0.05 milligrams per cubic metre – mg/m³).

Due to the concentration of lead present in the building, abatement must be conducted as high risk.

6.0 OZONE DEPLETING SUBSTANCES (ODS)

Potential sources of ODSs were observed on site during the visual review of the survey area:

- **None were detected**

In the province of B.C., the provincial regulatory framework providing the requirements for the safe management, storage, and disposal of ODS is BC Regulation 387/99, Ozone-Depleting Substances, and Other Halocarbons Regulation (ODSR), as amended by BC Reg.321/2004. According to the ODSR, a substance is considered to be ozone-depleting if it is listed as a Class I or Class II in Schedule A. Substances listed as Class III in Schedule A of the ODSR are not considered to be ozone-depleting.

7.0 PCBs

Potential sources of PCB's were not observed on site during the visual review at the survey area.

Any fluorescent light ballasts or potential PCB containing equipment, labels should be examined for the presence of PCBs – contractor to assume ballasts contain PCBs unless explicitly described on ballast label something similar to "Does not Contain PCBs."

The Federal PCB Regulations (SOR/2008-273) provides standards for the handling, storage and disposal of PCBs and equipment containing PCBs under the Canadian Environmental Protection Act, 1999. The Regulation imposes deadlines for the elimination of all PCBs and PCB-containing material currently in storage and requires all other PCBs to be phased out. Certain sections of the Regulation became effective as of December 31st, 2009. Subparagraph 16 (2) allows for light ballasts containing 50 mg/kg (ppm) PCBs, or more, to remain in service until December 31st, 2025 if the equipment is in use on the day on which the regulations came into force. Equipment with a PCB concentration of between 2 mg/kg (ppm) and 50 mg/kg (ppm) may remain in service until the day that the liquid is drained from the equipment.

According to the Environment Canada's Reports EPS 2/CC/2 (revised) August 1991, Identification of Lamp Ballasts containing PCBs and Handbook on PCBs in Electrical Equipment, (Third Edition), PCBs are generally associated with electrical equipment, such as transformers and fluorescent light ballasts, when manufactured before 1979.

The BC HWR (Part 1 – Interpretation and Application) defines PCB liquids and solids as liquid or material, respectively, that contains or is contaminated with chlorobiphenyls at a concentration greater than 50 parts per million (ppm) by weight of chlorobiphenyls. The BC HWR deals with requirements for the storage, transportation, treatment,

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recycling, and disposal of PCB wastes. Special handling procedures are not outlined by the BC HWR during the removal and disposal of materials containing PCBs where the content of the material is below either 50 mg/kg (ppm) for a solid material, or 2 mg/kg (ppm) for a liquid.

Part 5 of the BC OHSR outlines the requirement to handle hazardous materials, including PCBs, in the workplace.

8.0 MERCURY

Mercury coating equipment was observed on site during the visual review of the survey area:

- **Fluorescent light tubing and thermostat**

When taken out of service, mercury-containing equipment should be disposed of in accordance with the requirements of the BC MOE and transported in accordance with the requirements of the Federal TDG Act and Regulation. Part 5 of the BC OHSR deals with requirements when handling hazardous materials, including mercury, in the workplace.

9.0 RADON

Testing for radon in the subject property was not conducted as part of this HMI. The coastal region of B.C. is considered a low risk area for radon gas and as sampling for radon and or progenies of radon is not deemed necessary.

The conditions and on-site building systems, including mechanical ventilation, limit the likelihood of radon gas accumulation.

Radon is an invisible, odourless radioactive gas formed by naturally occurring radioactive breakdown of uranium in soil, rock, and water. Radon escapes from the ground and mixes with outdoor air-forming concentrations that are too low to be of concern; however, if radon enters a building it can accumulate to higher levels which when inhaled with air are deposited in the lungs. Based on information presented by the Canadian Centre for occupational health and Safety, the area in which the site is located is not known to have elevated radon levels. Health Canada has developed guidelines for acceptable levels of radon in buildings; however, there are currently no regulations governing acceptable levels of radon within buildings, and no requirements for testing or mitigation if levels are found to exceed the current Health Canada guidelines.

10.0 RADIOACTIVE MATERIALS

Smoke detectors were observed on site during the visual review of the survey area.

Smoke detectors containing radioactive materials may be present within the survey area. An ionization smoke detector uses a radioisotope such as americium-241 to produce ionization in air; a difference due to smoke is detected and an alarm is generated. The presence of radioactive isotopes such as americium-241 means that every decommissioned smoke detector should be properly verified for such materials and disposed of appropriately.

Federal Nuclear Substances and Radiation Devices Regulation (SOR/2000-207) provide guidance for the safe handling, storage, and disposal of equipment containing radioactive materials under the Nuclear Safety and Control Act. Part 6 of this Regulation provides exemptions for smoke detectors meeting defined criteria. In the workplace, radioactive materials are specifically regulated under Part 7 – Ionizing Radiation (Sections 7.17 to 7.25) of the BC OHSR. These regulations provide guidance for the safe handling, storage, and disposal of such materials.

11.0 UREA FORMALDEHYDE FOAM INSULATION

There were no signs of UFFI at the site.

Urea Formaldehyde Foam Insulation (UFFI) is composed of a mixture of urea-formaldehyde resin, a foaming agent, and compressed air. Its uses include injecting the foam in exterior wood frame and masonry walls in order to insulate difficult to reach cavities. It was primarily in use in residential construction from 1975 to 1978, though it was in-use in commercial and industrial developments to a lesser degree. During the mixing and curing of the insulation, as well as during its eventual deterioration, quantities of formaldehyde gas would be released into the air causing accumulation within the building. UFFI was banned in Canada in December 1980 as a precautionary measure to evaluate health concerns due to the off gassing of the formaldehyde gas. Recent studies performed in structures containing UFFI reported non-significant levels of interior formaldehyde gas.

Given these findings, and the timeframe since the ban of UFFI in Canada, structures still containing UFFI would most likely have low levels of formaldehyde and would be considered a low risk for health concerns to the occupants of these structures. No destructive testing was completed in order to verify the absence of UFFI within building structural components.

12.0 MOULD OR MICROBIAL CONTAMINATION

Visible signs of mould were observed on site during the visual review of the survey area.

The presence of mould or other microbiological contamination in buildings has become a concern to building tenants and owners due to potential health effects on occupants and users. Provincial Ministries of Labour have recently issued guidelines on enforced regulations to protect the health of construction workers who are exposed to mould in the course of building renovations. The presence of water leaks or high humidity can cause the growth or amplification of mould within building environments. A comprehensive inspection for mould, which would require intrusive testing was not performed as part of this HMI Survey. However, visible mould/water-damaged areas were not observed at the time of the Site visit.

13.0 MISCELLANEOUS TOXIC CHEMICALS

No miscellaneous chemicals were observed on site.

14.0 OTHER BIOLOGICAL HAZARDS / RODENT DROPPINGS

A significant amount of rodent droppings were observed on site during the visual review of the survey area, this being an issue due to the possibility of exposure to a hanta virus.

15.0 RECOMMENDATIONS

Based on the results of this HMI, the following measures are recommended at the Site:

Prior to beginning any demolition or renovation work that may impinge upon any asbestos containing materials or other hazardous materials within the building, the following is recommended:

1. **Asbestos containing building materials are assumed present in the Rope Gaskets, Duct Tape, Roof Chimney Mastic, and Basement Chimney Firestop. These materials are to be abated under moderate-risk safe work procedures (with upgrade to PAPR & partial containment) as outlined in [WorkSafeBC's guideline Safe Work Practices for Handling Asbestos \(2017\)](#) prior to demolition.**
2. **Asbestos containing building materials are confirmed present in Vinyl Sheet Flooring - Backing in walls and on the Main Floor. These materials are to be abated under high-risk safe work procedures as outlined in [WorkSafeBC's guideline Safe Work Practices for Handling Asbestos \(2017\)](#) prior to demolition.**
3. Smoke Detectors were observed on site – these detectors contain radioactive materials and are to be removed from site in a safe and regulated manner.
4. Fluorescent light fixtures and thermostat were located on site – should the building undergo demolition, the owner must remove in a safe and regulated manner.
5. **If any suspect asbestos containing materials are encountered in the building within walls, above ceilings, under floors, or on the roof during demolition/renovation activities that are not addressed in this report, the work in the immediate area is to be stopped and the supervisor informed of the findings. The supervisor is to contact Antiquity Environmental Consulting Ltd. for further directions and potentially update the hazardous material assessment if the materials are found to be asbestos containing. Should this occur an amended report with updated lab samples will be provided to the abatement contractor.**

If requested, Antiquity may complete a final review of the work areas following removal of hazardous materials, to document removal in accordance with regulatory requirements.

16.0 CLOSURE

The use of this report is subject to the Statement of Limitations presented in [Attachment D](#) of this report. The reader's attention is specifically drawn to the Statement of Limitations as it is considered essential that they be followed for the proper use and interpretation of this report. If you have any questions regarding this report, please contact the undersigned.

Sincerely,

Antiquity Environmental Consulting Ltd.

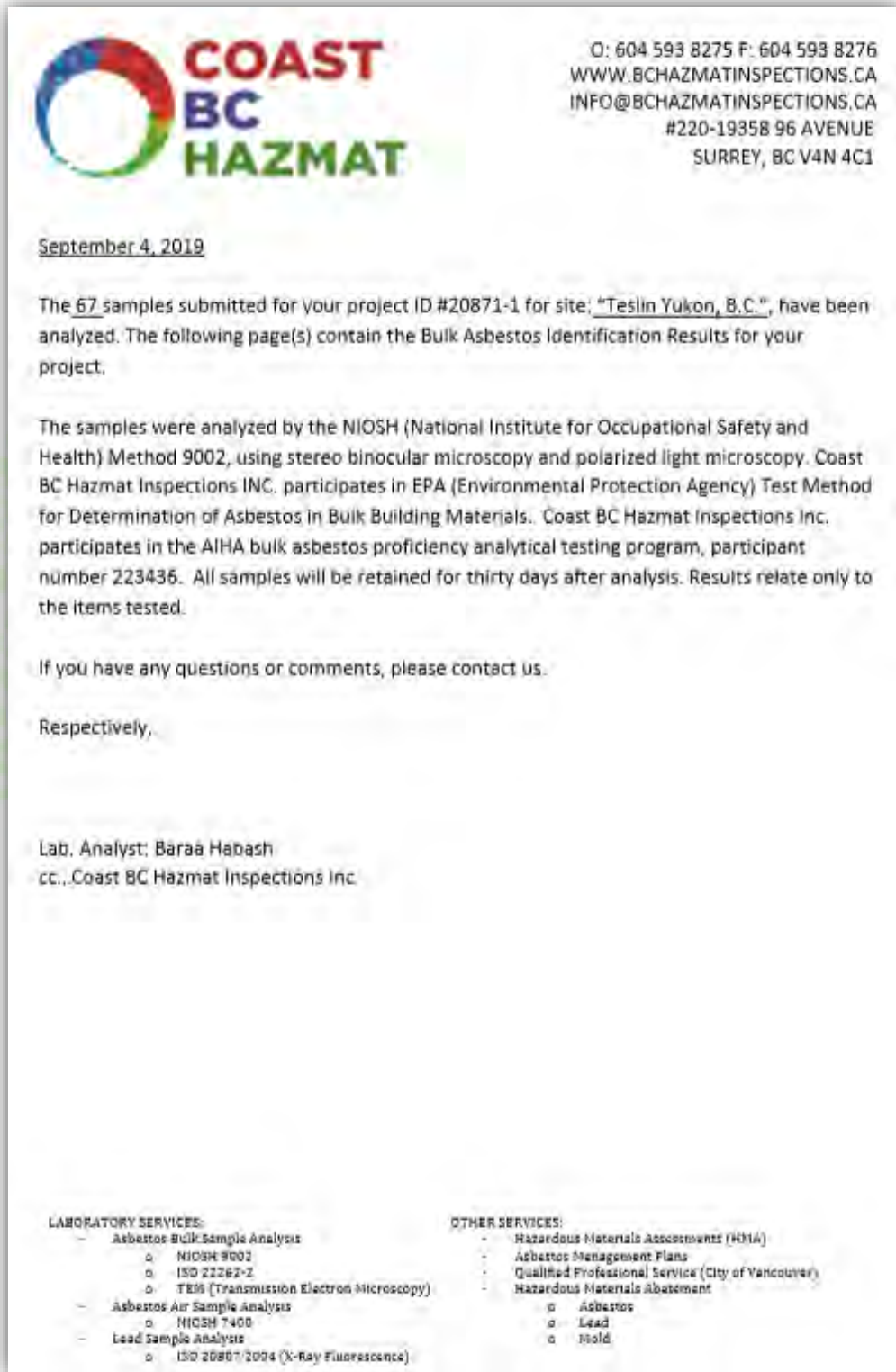
Survey Completed by: Reviewed by:

Trevor Getty, ROH, CIH, CPHI (c), CRSP, ABI



Attachments (4): 17.0 Appendix A – Site Sample Location Schematics
 18.0 Appendix B – Laboratory Results & Cover Letter
 19.0 Appendix C – Site Pictures
 20.0 Appendix D – Statement of Limitation

17.0 Appendix B – Laboratory Results





COAST BC HAZMAT INSPECTIONS INC.
BULK ASBESTOS RESULTS

O: 604 593 8278 F: 604 593 8276
 WWW.BCHAZMATINSPECTIONS.CA
 INFO@BCHAZMATINSPECTIONS.CA
 8220-19355 98 AVENUE
 SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
 SAMPLES SUBMITTED BY: Trevor Getty
 LOCATION: Teslin Yukon
 DATE ANALYZED: Sept 04/2018
 BCHI ID: 20871-1

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	OTHER MATERIAL & AMOUNT	ASBESTOS TYPE & AMOUNT
20871-1-1	M-1	Main stairs, Floor	Vinyl sheet, Vinyl top	Non fibrous 99%	Not Detected
			Vinyl sheet, Backing	Non fibrous 70%	Chrysotile 30%
20871-1-2	M-2	Main stairs, Floor	Vinyl sheet, Vinyl top	Non fibrous 99%	Not Detected
			Vinyl sheet, Backing	Non fibrous 70%	Chrysotile 30%
20871-1-3	M-3	Back entrance, Ceiling	Texture coat	Cellulose 3% Non fibrous 95%	Not Detected
20871-1-4	M-4	Back entrance, Ceiling	Texture coat	Cellulose 3% Non fibrous 95%	Not Detected
			Filler compound	Cellulose 2% Non fibrous 96%	Not Detected
20871-1-5	M-5	Back entrance, Ceiling	Texture coat	Cellulose 3% Non fibrous 95%	Not Detected
			Filler compound	Cellulose 2% Non fibrous 96%	Not Detected
20871-1-6	M-6	Stairs, Floor	Vinyl tile	Non fibrous 99%	Not Detected
20871-1-7	M-7	Stairs, Floor	Vinyl tile	Non fibrous 99%	Not Detected
20871-1-8	M-8	Back stairwell, Wall	Filler compound	Cellulose 2% Non fibrous 96%	Not Detected
20871-1-9	M-9	Back stairwell, Wall	Filler compound	Cellulose 2% Non fibrous 96%	Not Detected
20871-1-10	M-10	Back stairwell, Wall	Filler compound	Cellulose 2% Non fibrous 96%	Not Detected



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BULK ASBESTOS RESULTS

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 #220-15858 96 AVENUE
 SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
 SAMPLES SUBMITTED BY: Trevor Getty
 LOCATION: Teslin Yuvon
 DATE ANALYZED: Sept 04/2019
 BCHI ID: 20871-2

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	OTHER MATERIAL & AMOUNT	ASBESTOS TYPE & AMOUNT
20871-1-11	M-11	Back entrance, Wall	Wall paper	Cellulose 50% Non fibrous 10%	Not Detected
			Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-12	M-12	Back door, Floor	Vinyl composite tile	Cellulose 10% Non fibrous 90%	Not Detected
			Mesh backing	Cellulose 50% Non fibrous 10%	Not Detected
20871-1-13	M-13	Back door, Floor	Vinyl composite tile	Cellulose 10% Non fibrous 90%	Not Detected
			Mesh backing	Cellulose 50% Non fibrous 10%	Not Detected
20871-1-14	M-14	Bathroom, Floor	Vinyl sheet, vinyl top	Non fibrous 99%	Not Detected
			Vinyl sheet, Backing	Fiberglass 20% Non fibrous 80%	Not Detected
20871-1-15	M-15	Bathroom, Floor	Vinyl sheet, vinyl top	Non fibrous 99%	Not Detected
			Vinyl sheet, Backing	Fiberglass 20% Non fibrous 80%	Not Detected
20871-1-16	M-16	Room 2, Ceiling	Texture coat	Cellulose 3% Non fibrous 95%	Not Detected
			Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-17	M-17	Room 2, Ceiling	Texture coat	Cellulose 3% Non fibrous 95%	Not Detected



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BULK ASBESTOS RESULTS

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 #220-19305 96 AVENUE
 SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
 SAMPLES SUBMITTED BY: Trevor Getty
 LOCATION: Teslin Yukon
 DATE ANALYZED: Sept 04/2019
 BCHI ID: 20871-1

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	OTHER MATERIAL & AMOUNT	ASBESTOS TYPE & AMOUNT
			Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-08	8-18	Room 3, Ceiling	Texture coat	Cellulose 2% Non fibrous 98%	Not Detected
			Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-18	8-20	Room 3, Wall	Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-20	8-21	Room 3, Wall	Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-21	8-22	Room 3, Wall	Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-22	8-23	Room 3, Ceiling	Texture coat	Cellulose 2% Non fibrous 98%	Not Detected
			Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-23	8-24	Room 3, Ceiling	Texture coat	Cellulose 2% Non fibrous 98%	Not Detected
			Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-24	8-25	Room 3, Ceiling	Texture coat	Cellulose 2% Non fibrous 98%	Not Detected
			Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-25	8-26	Room 5, Floor	Vinyl sheet, Vinyl top	Non fibrous 99%	Not Detected



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 #220-19238 96 AVENUE
 SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
 SAMPLES SUBMITTED BY: Trevor Getty
 LOCATION: Teslin Yukon
 DATE ANALYZED: Sept 04/2018
 BCHI ID: 20871-1

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	OTHER MATERIAL & AMOUNT	ASBESTOS TYPE & AMOUNT
			Vinyl sheet, Backing	Cellulose 30% Non fibrous 70%	Not Detected
20871-1-25	M-27	Room 3, Floor	Vinyl sheet, Vinyl top	Non fibrous>99%	Not Detected
			Vinyl sheet, Backing	Cellulose 30% Non fibrous 70%	Not Detected
20871-1-27	M-28	Room 3, Floor	Vinyl sheet, Vinyl top	Non fibrous>99%	Not Detected
			Vinyl sheet, Backing	Cellulose 30% Non fibrous 70%	Not Detected
20871-1-28	M-29	Room 4, Floor	Vinyl composite tile	Cellulose 10% Non fibrous 90%	Not Detected
			Mesh backing	Cellulose 90% Non fibrous 10%	Not Detected
20871-1-29	M-30	Room 4, Floor	Vinyl composite tile	Cellulose 10% Non fibrous 90%	Not Detected
			Mesh backing	Cellulose 90% Non fibrous 10%	Not Detected
20871-1-30	M-31	Room 3, Floor	Vinyl sheet, Vinyl top	Non fibrous>99%	Not Detected
			Vinyl sheet, Backing	Non fibrous 70%	Chrysotile 30%
20871-1-31	M-32	Room 3, Floor	Vinyl sheet, Vinyl top	Non fibrous>99%	Not Detected
			Vinyl sheet, Backing	Non fibrous 70%	Chrysotile 30%



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 #220-39308 96 AVENUE
 SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
 SAMPLES SUBMITTED BY: Trevor Getty
 LOCATION: Teslin Yukon
 DATE ANALYZED: Sept. 04/2019
 BCHI ID: 20871-1

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	OTHER MATERIAL & AMOUNT	ASBESTOS TYPE & AMOUNT
20871-1-32	1432	Room 5, Closet, Wall	Filer compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-33	1434	Room 5, Closet, Wall	Filer compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-34	33	Upstairs, Sub floor	Vinyl composite tile	Cellulose 10% Non fibrous 90%	Not Detected
			Mesh backing	Cellulose 80% Non fibrous 10%	Not Detected
20871-1-35	35	Upstairs, Sub floor	Vinyl composite tile	Cellulose 10% Non fibrous 90%	Not Detected
			Mesh backing	Cellulose 80% Non fibrous 10%	Not Detected
20871-1-36	37	Upstairs, Top layer, Floor	Vinyl sheet, Vinyl top	Non fibrous 95%	Not Detected
			Vinyl sheet, Backing	Non fibrous 70%	Chrysotile 30%
20871-1-37	38	Upstairs, Top layer, Floor	Vinyl sheet, Vinyl top	Non fibrous 99%	Not Detected
			Vinyl sheet, Backing	Non fibrous 70%	Chrysotile 30%
20871-1-38	E1	Exterior house, Siding	Cementitious board	Non fibrous 85%	Chrysotile 15%
20871-1-39	E2	Exterior house, Siding	Cementitious board	Non fibrous 85%	Chrysotile 15%
20871-1-40	E3	Exterior house, Siding	Cementitious board	Non fibrous 85%	Chrysotile 15%



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BULK ASBESTOS RESULTS

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#220-19258 26 AVENUE
SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
SAMPLES SUBMITTED BY: Trevor Getty
LOCATION: Teslin Yuxon
DATE ANALYZED: Sept 04/2019
BCHI ID: 20871-1

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	OTHER MATERIAL & AMOUNT	ASBESTOS TYPE & AMOUNT
20871-1-41	E4	Exterior garage, Siding	Cementitious board	Non fibrous 65%	Chrysotile 35%
20871-1-42	E5	Exterior garage, Siding	Cementitious board	Non fibrous 65%	Chrysotile 35%
20871-1-43	E6	Exterior garage, Siding	Cementitious board	Non fibrous 65%	Chrysotile 35%
20871-1-44	E7	Exterior house, Roof	Asphalt shingle	Cellulose 30% Non fibrous 70%	Not Detected
20871-1-45	E8	Exterior house, Roof	Asphalt shingle	Cellulose 30% Non fibrous 70%	Not Detected
20871-1-46	E9	Exterior house, Roof	Asphalt shingle	Cellulose 30% Non fibrous 70%	Not Detected
20871-1-47	E10	Exterior garage, Roof	Asphalt shingle	Cellulose 30% Non fibrous 70%	Not Detected
20871-1-48	E11	Exterior garage, Roof	Asphalt shingle	Cellulose 30% Non fibrous 70%	Not Detected
20871-1-49	E12	Exterior garage, Roof	Asphalt shingle	Cellulose 30% Non fibrous 70%	Not Detected
20871-1-50	E13	Exterior underley, Roof	Mastic	Cellulose 70% Non fibrous 30%	Not Detected
20871-1-51	B-3	Basement Wall Corner bead	Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-52	B-4	Basement Wall Corner bead	Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-53	B-5	Basement Wall Corner bead	Filler compound	Cellulose 2% Non fibrous 98%	Not Detected



COAST BC HAZMAT (INSPECTIONS) INC.
BULK ASBESTOS RESULTS

O: 604 598 8275 F: 604 598 8276 CLIENT ID: Antiquity (RCMP Detachment)
 WWW.BCHAZMATINSPECTIONS.CA SAMPLES SUBMITTED BY: Trevor Gesty
 INFO@BCHAZMATINSPECTIONS.CA LOCATION: Teslin Yukon
 #220-15858 96 AVENUE DATE ANALYZED: Sept 04/2019
 SURREY, BC V4N 4C1 BCHI ID: 20871-0

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	OTHER MATERIAL & AMOUNT	ASBESTOS TYPE & AMOUNT
20871-1-04	B-9	Basement, Ceiling	Texture coat	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-05	B-9	Basement, Ceiling	Texture coat	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-06	B-10	Basement, Ceiling	Texture coat	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-07	47	Room U-8, Ceiling	Texture coat	Cellulose 2% Non fibrous 98%	Not Detected
			Filler compound	Non fibrous 99%	Chrysotile 1%
20871-1-08	48	Room U-8, Ceiling	Texture coat	Cellulose 2% Non fibrous 98%	Not Detected
			Filler compound	Non fibrous 99%	Chrysotile 1%
20871-1-09	48	Room U-8, Ceiling	Texture coat	Cellulose 2% Non fibrous 98%	Not Detected
			Filler compound	Non fibrous 99%	Chrysotile 1%
20871-1-50	52	Room U-9, Wall Corner bead	Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
			Mesh	Fiberglass<99%	Not Detected
20871-1-61	53	Room U-9, Wall Corner bead	Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
			Mesh	Fiberglass<99%	Not Detected



COAST BC HAZMAT INSPECTIONS INC.
BULK ASBESTOS RESULTS

T: 604 593 8275 F: 604 593 8276 CLIENT ID: Antiquity (RMF Detachment)
 WWW.BCHAZMATINSPECTIONS.CA SAMPLES SUBMITTED BY: Trevor Betty
 INFO@BCHAZMATINSPECTIONS.CA LOCATION: Teslin Yukon
 #220-69356 96 AVENUE DATE ANALYZED: Sept 04/2019
 SURREY, BC VAN 4C1 BICH ID: 20871-1

BICH SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	OTHER MATERIAL & AMOUNT	ASBESTOS TYPE & AMOUNT
20871-1-62	34	Room U-9, Wall Corner bead	Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
			Mesh	Fiberglass 99%	Not Detected
20871-1-63	35	Room U-10, Wall Corner bead	Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
			Mesh	Fiberglass 99%	Not Detected
20871-1-64	U-12 36	Attic, Wall	Insulation material	Cellulose 80% Non fibrous 10%	Not Detected
20871-1-65	37	Room U-11, Wall	Paper backing	Cellulose 80% Non fibrous 10%	Not Detected
			Filler compound	Cellulose 2% Non fibrous 98%	Not Detected
20871-1-66	38	Room U-12, Wall	Wall paper	Cellulose 80% Non fibrous 10%	Not Detected
20871-1-67	39	Room 8, Wall	Wall paper	Cellulose 80% Non fibrous 10%	Not Detected

Analytical Method: NIOSH 9002 Analyst: Baraa Habbash

Coast BC Hazmat Inspections Inc. participates in the AEMA

bulk asbestos proficiency analytical testing program, participant number 225435.



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#220-19358 96 AVENUE
SURREY, BC V4N 4C1

Sent 4/2019

The 35 samples submitted for your project ID #20871-2 for site: "Teslin Yukon, B.C.", have been analyzed. The following page(s) contain the lead concentration results for your project.

The samples were analyzed using the Bruker S1 Titan 500 X-Ray Fluorescence (XRF) Analyzer. Lead content is measured and displayed as PPM. Coast BC Hazmat Inspections Inc. retains all samples for three months after analysis. Results relate only to the items tested.

If you have any questions or comments, please contact us.

Respectively,

Lab. Analyst: Baraa Habash
cc... Coast BC Hazmat Inspections Inc

LABORATORY SERVICES:

- Asbestos Bulk Sample Analysis
 - o NIOSH 9001
 - o ISO 22262-2
 - o TEM (Transmission Electron Microscopy)
- Asbestos Air Sample Analysis
 - o NIOSH 7400
- Lead Sample Analysis
 - o ISO 20807:2004 (X-Ray Fluorescence)

OTHER SERVICES:

- Hazardous Materials Assessments (HNA)
- Asbestos Management Plans
- Qualified Professional Service (City of Vancouver)
- Hazardous Materials Abatement
 - o Asbestos
 - o Lead
 - o Mold



COAST BC HAZMAT INSPECTIONS INC.

O: 604.593.8275 F: 604.55
 WWW.BCHAZMATINSPECTIC
 INFO@BCHAZMATINSPECTIC
 #220-19358 96 AVENUE
 SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
 SAMPLES SUBMITTED BY: Trevor Getty
 LOCATION: Teslin Yukon
 DATE ANALYZED: Sept 04/2019
 BCHI ID: 20871-2

XRF LEAD RESULTS

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	COLOR	LEAD CONCENTRATION (PPM)	Variance +/-	Result Positive/Negative
20871-2-1	Pb-20	Back stairwell, Wall	Paint chip	Grey	1873	42	Positive
20871-2-2	Pb-21	Back stairwell, Wall	Paint chip	Red	42	17	Negative
20871-2-3	Pb-22	Back stairwell, Wall	Paint chip	Red	37	17	Negative
20871-2-4	Pb-23	Back stairwell, Wall	Paint chip	White	321	22	Positive
20871-2-5	Pb-24	Back stairwell, Wall	Paint chip	White	434	24	Positive
20871-2-6	Pb-25	Back entrance, Door	Paint chip	White	568	26	Positive
20871-2-7	Pb-26	Back entrance, Door	Paint chip	White	734	29	Positive
20871-2-8	Pb-27	Back entrance, Floor	Paint chip	Red	46	17	Negative



COAST BC HAZMAT INSPECTIONS INC.

O: 604 593 8275 F: 604 55
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 INFO@BCHAZMATINSPECTIC
 #220-19358 96 AVENUE
 SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
 SAMPLES SUBMITTED BY: Trevor Getty
 LOCATION: Teslin Yukon
 DATE ANALYZED: Sept 04/2019
 BCHI ID: 20871-2

XRF LEAD RESULTS

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	COLOR	LEAD CONCENTRATION (PPM)	Variance +/-	Result Positive/Negative
20871-2-9	Pb-28	Back entrance, Floor	Paint chip	Red	45	18	Negative
20871-2-10	Pb-29	Entrance, Wall	Paint chip	Beige	554	27	Positive
20871-2-11	Pb-30	Entrance, Wall	Paint chip	Beige	528	26	Positive
20871-2-12	Pb-31	Side entrance, Wall	Paint chip	Red	50	15	Negative
20871-2-13	Pb-32	Side entrance, Wall	Paint chip	Red	39	15	Negative
20871-2-14	Pb-33	Basement, Wall	Paint chip	Beige	72	13	Negative
20871-2-15	Pb-34	Basement, Wall	Paint chip	Beige	73	13	Negative
20871-2-16	Pb-35	Basement, Wall	Paint chip	Beige	26	11	Negative



COAST BC HAZMAT INSPECTIONS INC.

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 #220-19358 96 AVENUE
 SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
 SAMPLES SUBMITTED BY: Trevor Getty
 LOCATION: Teslin Yukon
 DATE ANALYZED: Sept 04/2019
 BCHI ID: 20871-2

XRF LEAD RESULTS

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	COLOR	LEAD CONCENTRATION (PPM)	Variance +/-	Result Positive/Negative
20871-2-17	Pb-39	Cell, Floor	Paint chip	Red	43	17	Negative
20871-2-18	Pb-40	Cell, Floor	Paint chip	Red	40	17	Negative
20871-2-19	Pb-41	Cell, Floor	Paint chip	Red	46	18	Negative
20871-2-20	Pb-42	Right hand panel, Wall	Paint chip	Beige	100	15	Positive
20871-2-21	Pb-43	Right hand panel, Wall	Paint chip	Beige	98	14	Positive
20871-2-22	Pb-44	Right hand panel, Wall	Paint chip	Beige	90	15	Positive
20871-2-23	B-1	Cell, Floor	Paint chip	Grey	1515	41	Positive
20871-2-24	B-2	Cell, Floor	Paint chip	Grey	1576	42	Positive



COAST BC HAZMAT INSPECTIONS INC.

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#220-19358 96 AVENUE
SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
SAMPLES SUBMITTED BY: Trevor Getty
LOCATION: Teslin Yukon
DATE ANALYZED: Sept 04/2019
BCHI ID: 20871-2

XRF LEAD RESULTS

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	COLOR	LEAD CONCENTRATION (PPM)	Variance +/-	Result Positive/Negative
20871-2-25	B-6	Cell, Wall	Paint chip	White	248	19	Positive
20871-2-26	B-7	Cell, Wall	Paint chip	White	366	22	Positive
20871-2-27	U7 Pb-41	Unit 7, Wall	Paint chip	Green	592	27	Positive
20871-2-28	U7 Pb-42	Unit 7, Wall	Paint chip	Green	477	24	Positive
20871-2-29	U7 Pb-43	Unit 7, Ceiling	Paint chip	Green	428	23	Positive
20871-2-30	U7 Pb-44	Unit 7, Ceiling	Paint chip	Green	512	25	Positive
20871-2-31	Pb-50	Room 9, Window	Paint chip	Grey	711	29	Positive
20871-2-32	Pb-51	Room 9, Window	Paint chip	Grey	1005	33	Positive



COAST BC HAZMAT INSPECTIONS INC.

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WWW.BCHAZMATINSPECTIVE.COM
INFO@BCHAZMATINSPECTIVE.COM
#220-19358 96 AVENUE
SURREY, BC V4N 4C1

CLIENT ID: Antiquity (RCMP Detachment)
SAMPLES SUBMITTED BY: Trevor Getty
LOCATION: Teslin Yukon
DATE ANALYZED: Sept 04/2019
BCHI ID: 20871-2

XRF LEAD RESULTS

BCHI SAMPLE ID	CLIENT SAMPLE ID	SAMPLE LOCATION	MATERIAL TYPE	COLOR	LEAD CONCENTRATION (PPM)	Variance +/-	Result Positive/Negative
20871-2-33	Pb-15	Interior, Wall	Paint chip	Beige	179	18	Positive
20871-2-34	Pb-16	Interior, Wall	Paint chip	Beige	225	19	Positive
20871-2-35	UT-9b 45-46	Window, Door	Paint chip	Grey	716	30	Positive

Equipment Used: Bruker Titan 500 XRF Analyzer Analyst: Baraa Habash

Health Canada states samples ≥ 90 PPM to be Lead Containing

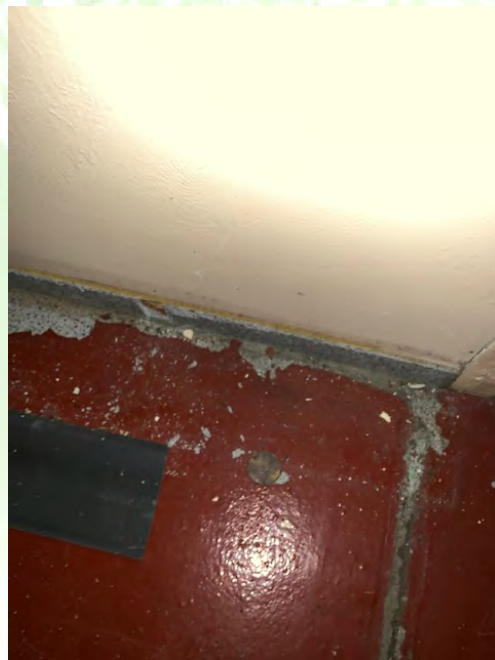
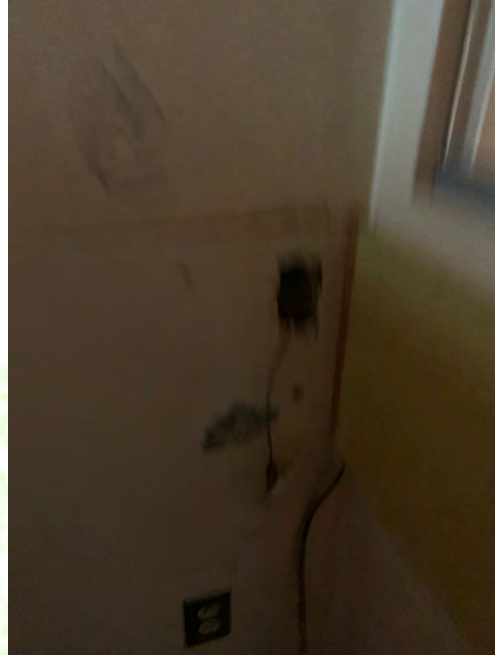
Appendix C – Site Pictures

















18.0 Appendix D – Statement of Limitations

The report is intended to direct the Client’s attention to recognised environmental conditions and to potential sources of environmental contamination. The findings and conclusions regarding contamination of the property are based solely on the extent of observations and information gathered during the assessment. Nothing in the report is intended to express any legal opinion upon environmental liabilities relating to the site or whether operations legally conformed to relevant legislative requirements.

Furthermore, it must be understood that changing circumstances in the physical environment, the use of the property, as well as changes in any substances stored, used, or handled at the property could alter radically the conclusions and information contained in this report. Therefore, it is important that the property is periodically re-evaluated, and the client kept informed as to development, which may impact the property.

Estimations of volumes & regions of the facility with respect to room dimensions and/or extent of contamination of hazardous materials including asbestos are *approximations only*. These approximations should not be used by any party to estimate potential remediation or abatement workloads. Instead, accurate measurements should be generated by the abatement contractor prior to work commencing at the site.

Should the abatement contractor or any other party encounter any other suspect materials not identified in this document prior to demolition of the building AECL is to be notified immediately to conduct further sampling as required of any suspect ACM materials.

This report shall not be reproduced except *in full*, without written approval of Antiquity Environmental Consulting Ltd. © (AECL).



CERTIFICATE OF ANALYSIS

Work Order : **WR2000111**
Client : **Cash Clients Canada**
Contact : **Jamie Gleason**
Address : **12 – 151 Industrial Rd.**
YT Canada Y1A 2V3
Telephone : **867 334 9660**
Project : **Floor Paint Analysis**
PO : **----**
C-O-C number : **17-772531**
Sampler : **----**
Site : **----**
Quote number : **----**
No. of samples received : **2**
No. of samples analysed : **2**

Page : **1 of 2**
Laboratory : **Whitehorse - Environmental**
Account Manager : **Sneha Sansare**
Address : **#12 151 Industrial Road**
Whitehorse YT Canada Y1A 2V3
Telephone : **+1 867 668 6689**
Date Samples Received : **25-Mar-2020 15:30**
Date Analysis Commenced : **26-Mar-2020**
Issue Date : **03-Apr-2020 14:46**

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Cristina Alexandre	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
 LOR: Limit of Reporting (detection limit).

Unit	Description
mg/kg	milligrams per kilogram

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in reports identified as "Preliminary Report" are considered authorized for use.

Analytical Results

Sub-Matrix: Solid

(Matrix: Soil/Solid)

Client sample ID

					Garage Floor Paint Paint	Basement Floor Paint Paint	----	----	----
					24-Mar-2020	24-Mar-2020	----	----	----
Analyte	CAS Number	Method	LOR	Unit	WR2000111-001	WR2000111-002	-----	-----	-----
					Result	Result	----	----	----
Metals									
lead	7439-92-1	E494.Pb	5.0	mg/kg	3100	2480	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

CMS Construction Management Services

(a division of Hess River Holdings Ltd.)

tel: (867) 633-3344


cell: (867) 334-9660

e-mail: cms@northwestel.net

Record of: OLD Teslin RCMP Detachment Site Visit

Project: Old Teslin RCMP Detachment Haz Mat Abatement & Building Demolition

Date of Site Visit: May 13, 2020

Item:	Description:	Comments:
1.0	General	
	<p>1. This observation report has been prepared at the request of RCMP M Division in response to queries raised by Stantec Consulting to assist with their preparation of a scope of work for hazardous materials abatement on this building.</p> <p>2. Exterior view from NE of the old Detachment that has been boarded up. Exterior wall areas appear to be approximately 3200 sf (not excluding windows and doors):</p> 	

3. Front elevation:



4. Rear elevation:



5. Cellblock addition:



6. Residence side of building:



2.0	Fuel Storage	
------------	---------------------	--

1. It appears there may have been a fuel tank located inside the building at one time:



2. There is an abandoned, disconnected fuel tank outside the building:



3. It would be prudent to review the perimeter of the foundation excavations when demolition is underway to determine if there are any other fuel lines evident that could indicate the presence of an underground fuel oil tank.

3.0

Exterior Siding, Foundation and Painted Materials

1. The exterior wall assembly appears to be comprised of a 2x4 framed wall, shiplap sheathing, asbestos cement shingle siding, 2x2 strapping @ 2' o.c., 1 1/2" beadboard insulation between and pressboard paper lap siding:






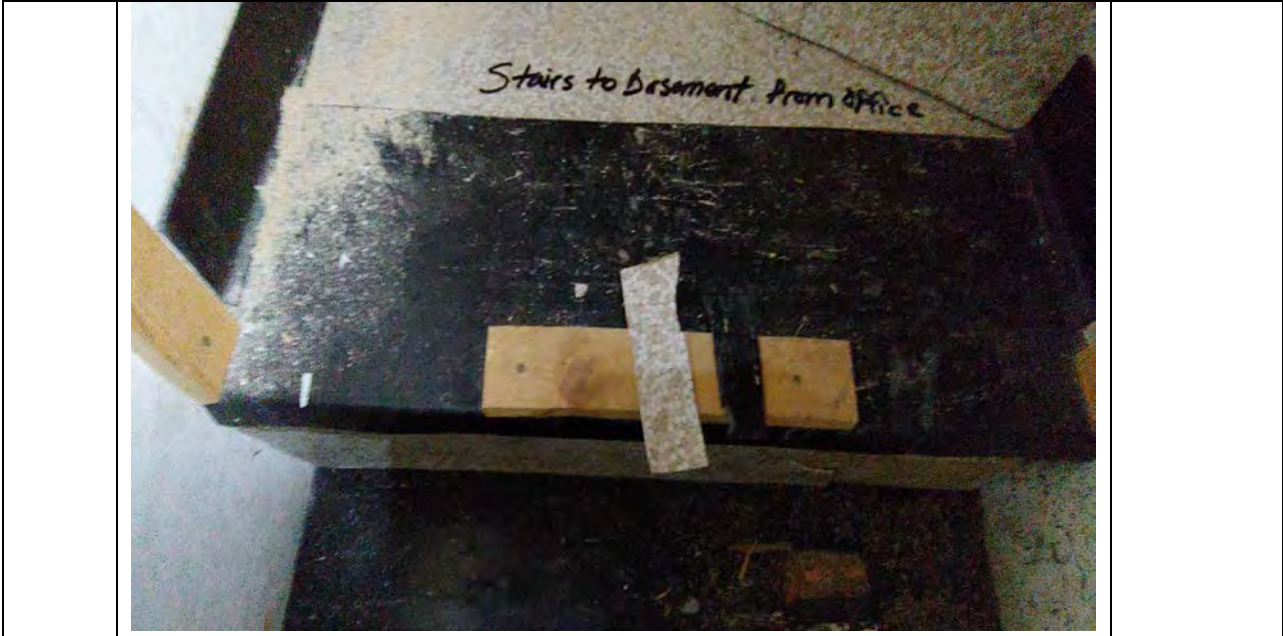
2. Cement board was observed over the cellblock addition foundation. 3 samples were collected for ACM testing:



3. Exterior paint and substrate samples were collected for lead content analysis at decking, painted trim and hardboard siding locations.

4.0	<p align="center">Interior Wall and Ceiling Finish Materials</p>	
	<p>1. There appeared to be two types of textured ceiling finishes. The residence portion of the building appears to be primarily comprised of an un-painted "popcorn" texture finish which is more easily removed. "Knock-down" texture was used on the kitchen ceiling, the walls and u/s of the main entry stairs and in the basement area where the laundry sink is located and the old cell ceiling in the basement.</p> <p>Samples were collected at all texture ceiling locations for verification. ACM test results will be provided when available. Ceiling areas by room are as follows:</p> <p>Main Floor: Living: 15' x 15' Kitchen: 11' x 15' Back Porch: 7'-6" x 12'-6" Front Porch: 5' x 9'-6" Detachment/Offices: 16' x 26'-6" Vestibule at top of basemen stairs: 3'-6" x 3'-6" Stair 2: 3'-6" x 12' Entrance to cellblock: 5' x 15'-6"</p> <p>Second Floor: Room U8: 14'-6" x 16'6" Room U9: 10' x 16' Room U10: 10' x 16' Room U11: 6' x 14'</p> <p>Basement: South Stair: 5' x 4' Main Basement (where Laundry Sink is located): 10'6" x 13' U/S Main Entry Stair: 6' x 14' Old Cells: 16' x 14'</p>	
5.0	<p align="center">Interior Flooring Materials</p>	
	<p>1. The residence and office areas appear to have a brown floor tile (potentially ACM) as the base flooring layer throughout the main and 2nd floors. Carpet has been applied over the floor tile in the living room, offices and bedrooms. Layer(s) of RSF has been applied over the floor tile in the kitchen and office stair landing. Flooring samples were collected in all rooms for verification testing of ACM's. Flooring composition by layer was recorded..</p> <p>2. Examples of typical samples taken:</p> 	





6.0 Interior Ducting


1. ACM mastic was observed in spot locations on the 10" x 10" fresh air ductwork located at the SW corner of the main basement area (where the laundry sink is located). There appeared to be approximately 12' of affected ductwork:





2. There was no brown mastic apparent on the forced air furnace and ductwork (it appeared the furnace and ductwork may have been upgraded at some point):



		
7.0	Interior Basement Walls	
	<ol style="list-style-type: none"> 1. Bulk samples of basement painted GWB and plywood with substrate were collected for TCLP analysis for lead content. Results will be provided when available. 	
8.0	Attic Areas	
	<ol style="list-style-type: none"> 1. Attic areas of the residence and garage were checked for the presence of vermiculite. There was no vermiculite apparent, so no samples were collected for testing. 	
9.0	Garage	
	<ol style="list-style-type: none"> 1. Samples were collected for TCLP analysis for lead content of painted plywood wall and ceiling finishes. Results will be forwarded when available. 2. TCLP analysis of painted concrete floor coatings were previously undertaken and results provided. 3. There was no mechanical insulation apparent on the garage heating system (direct discharge forced air furnace). 	

This report has been prepared by CMS Construction Management Services for the exclusive use of our Client. The information provided in this report is an overview of the general work and activities on the site recorded to the best of our ability based on periodic field observations completed at the time the report was prepared and information provided by personnel on-site. There are no assurances offered or indicated otherwise that the information contained herein is complete and accurate. CMS does not warrant the information provided and in no way accepts any liability or responsibility for the information provided.



EMSL Canada Inc.

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<http://www.EMSL.com> / vancouverlab@EMSL.com

EMSL Canada Order: 692001119

Customer ID: 55CMSY42

Customer PO:

Project ID:

Attention: Jamie Gleason
CMS Construction Management Services
1505 B Birch Street
Whitehorse, YT Y1A 3X1

Phone: (867) 633-3344
Fax:
Received Date: 05/19/2020 11:24 AM
Analysis Date: 05/21/2020 - 05/22/2020
Collected Date:

Project: OLD TESLIN, YUKON RCMP DETACHMENT

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
7 692001119-0001	ROOM U8 (BEDROOM ON RIGHT AT TOP OF STAIRS) - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8 692001119-0002	CEILING ROOM U9 (BEDROOM ON LEFT AT TOP OF STAIRS) - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9 692001119-0003	CEILING ROOM U9 (BEDROOM ON LEFT AT TOP OF STAIRS) - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10 692001119-0004	ROOM U10 (2ND BEDROOM ON LEFT AT TOP OF STAIRS) - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11 692001119-0005	ROOM U11 (STAIR/LANDING) - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12 692001119-0006	REAR PORCH - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13 692001119-0007	LIVING ROOM - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14 692001119-0008	KITCHEN (KNOCK-DOWN) - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15 692001119-0009	FRONT PORCH - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16 692001119-0010	VESTIBULE AT TOP OF STAIR 1 (SOUTH STAIR) - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17 692001119-0011	STAIR 2 (KNOCK DOWN) - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18 692001119-0012	DETACHMENT OFFICES - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19 692001119-0013	BASEMENT ROOM W/ LAUNDRY SINK - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20 692001119-0014	UNDER STAIR 2 (NORTH STAIR) - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/26/2020 19:08:55



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<http://www.EMSL.com> / vancouverlab@EMSL.com

EMSL Canada Order: 692001119

Customer ID: 55CMSY42

Customer PO:

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
21 692001119-0015	UNDER STAIR 1 (SOUTH STAIR) - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22 692001119-0016	OLD CELL IN BASEMENT - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23 692001119-0017	ENTRY TO NEW CELLS - CEILING TEXTURE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24 692001119-0018	FRONT OF CELLBLOCK ADDITION - CEMENT BOARD	Gray Non-Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
25 692001119-0019	SIDE OF CELLBLOCK ADDITION (STREET SIDE) - CEMENT BOARD	Gray Non-Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
26 692001119-0020	BACK OF CELLBLOCK ADDITION - CEMENT BOARD	Gray Non-Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
27 692001119-0021	2ND FLOOR BEDROOMS AND HALLWAY - FLOOR TILE ON UNDERLAY PLYWOOD	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-Vinyl Floor Tile 692001119-0022	LIVING ROOM AND CLOSET - FLOOR TILE ON UNDERLAY PLYWOOD	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-Paper 692001119-0022A	LIVING ROOM AND CLOSET - FLOOR TILE ON UNDERLAY PLYWOOD	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
29-Sheet Flooring 692001119-0023	KITCHEN - CORLON RSF/UNDERLAY PLY/ORANGE RSF/UNDERLAY PLY/UNDERLAY PLY	White/Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29-Vinyl Sheet Flooring 692001119-0023A	KITCHEN - CORLON RSF/UNDERLAY PLY/ORANGE RSF/UNDERLAY PLY/UNDERLAY PLY	Orange Non-Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
29-Paper 692001119-0023B	KITCHEN - CORLON RSF/UNDERLAY PLY/ORANGE RSF/UNDERLAY PLY/UNDERLAY PLY	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
30-Vinyl Sheet Flooring 692001119-0024	UPSTAIRS BATH - ORANGE RSF/UNDERLAY PL/UNKNOWN BROWN MAT'L/UNDERLAY PLY/PAPER	Orange Non-Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile

Initial report from: 05/26/2020 19:08:55



EMSL Canada Inc.

4506 Dawson Street Burnaby, BC V5C 4C1

Tel/Fax: (604) 757-3158 / (604) 757-4731

<http://www.EMSL.com> / vancouverlab@EMSL.com

EMSL Canada Order: 692001119

Customer ID: 55CMSY42

Customer PO:

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
30-Backing 692001119-0024A	UPSTAIRS BATH - ORANGE RSF/UNDERLAY PL/UNKNOWN BROWN MAT'L/UNDERLAY PLY/PAPER	Brown Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
30-Paper 692001119-0024B	UPSTAIRS BATH - ORANGE RSF/UNDERLAY PL/UNKNOWN BROWN MAT'L/UNDERLAY PLY/PAPER	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
31-Carpet 692001119-0025	DETACHMENT AND OFFICES - CARPET/FLOOR TILE/UNDERLAY PLY/PAPER	Various Fibrous Homogeneous	85% Synthetic	15% Non-fibrous (Other)	None Detected
31-Vinyl Floor Tile 692001119-0025A	DETACHMENT AND OFFICES - CARPET/FLOOR TILE/UNDERLAY PLY/PAPER	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
31-Paper 692001119-0025B	DETACHMENT AND OFFICES - CARPET/FLOOR TILE/UNDERLAY PLY/PAPER	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
32 692001119-0026	DETACHMENT STAIR LANDING - CORLON RSF/UNDERLAY PLY	White/Beige Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
33-Sheet Flooring 692001119-0027	STAIR 2 (NORTH STAIR) - BLACK TREADS/CORLON RSF RISERS	White/Beige Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
33-Floor Tread 692001119-0027A	STAIR 2 (NORTH STAIR) - BLACK TREADS/CORLON RSF RISERS	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34 692001119-0028	DETACHMENT BATHROOM (MAIN FLOOR) - CREAM RSF/UNDERLAY PARTICLE BOARD	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-Sheet Flooring 692001119-0029	CELL BLOCK ENTRY CORRIDOR - CORLON RSF/BROWN FLOOR TILE/UNDERLAY PLY/PAPER	White/Beige Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
35-Vinyl Floor Tile 692001119-0029A	CELL BLOCK ENTRY CORRIDOR - CORLON RSF/BROWN FLOOR TILE/UNDERLAY PLY/PAPER	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/26/2020 19:08:55



EMSL Canada Inc.

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Tel/Fax: (604) 757-3158 / (604) 757-4731


<http://www.EMSL.com> / vancouverlab@EMSL.com

EMSL Canada Order: 692001119
Customer ID: 55CMSY42
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
35-Paper <small>692001119-0029B</small>	CELL BLOCK ENTRY CORRIDOR - CORLON RSF/BROWN FLOOR TILE/UNDERLAY PLY/PAPER	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
36 <small>692001119-0030</small>	WHITE EXTERIOR PRESSBOARD SIDING	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
37 <small>692001119-0031</small>	WHITE EXTERIOR PRESSBOARD SIDING (MAYO TQ)	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected

Analyst(s) _____
 Margaret Lee (41)



 Nicole Yeo, Laboratory Manager
 or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. 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 or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Canada Inc. Burnaby, BC NVLAP Lab Code 201068-0

Initial report from: 05/26/2020 19:08:55



CERTIFICATE OF ANALYSIS

Work Order : **VA20A6507**
Client : **Cash Clients Canada**
Contact : **Jamie Gleason**
Address : **8081 Lougheed Highway**
Burnaby BC Canada V5A 1W9
Telephone : **867 334 9660**
Project : **Old Teslin RCMP Detachment**
PO : **----**
C-O-C number : **----**
Sampler : **----**
Site : **----**
Quote number : **----**
No. of samples received : **6**
No. of samples analysed : **6**

Page : **1 of 3**
Laboratory : **Vancouver - Environmental**
Account Manager : **Sneha Sansare**
Address : **8081 Lougheed Highway**
Burnaby BC Canada V5A 1W9
Telephone : **+1 604 253 4188**
Date Samples Received : **15-May-2020 11:45**
Date Analysis Commenced : **22-May-2020**
Issue Date : **26-May-2020 16:25**

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Janice Leung	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia



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Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in reports identified as "Preliminary Report" are considered authorized for use.



Analytical Results

Sub-Matrix: Solid (Matrix: Soil/Solid) Client sample ID

					Exterior Blue Painted Trim Board	Exterior Grey Over red Painted Decking Material	Interior Yellow Painted Plywood Wall Covering in Old Basement Cell Block	Interior Yellow Painted GWB in Basement Laundry room	Interior Yellow Painted Ceiling and Interior Wall Plywood in Garage
					13-May-2020	13-May-2020	13-May-2020	13-May-2020	13-May-2020
Analyte	CAS Number	Method	LOR	Unit	VA20A6507-001	VA20A6507-002	VA20A6507-003	VA20A6507-004	VA20A6507-005
					Result	Result	Result	Result	Result
TCLP Metals									
pH, TCLP 1st preliminary	----	EPP444	0.010	pH units	4.73	6.11	5.63	8.85	5.55
pH, TCLP 2nd preliminary	----	EPP444	0.010	pH units	4.73	1.46	1.48	1.78	1.50
pH, TCLP extraction fluid initial	----	EPP444	0.010	pH units	4.90	4.90	4.90	4.90	4.90
pH, TCLP final	----	EPP444	0.010	pH units	4.93	4.92	4.94	5.01	4.93
lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	0.28	<0.25	<0.25	<0.25

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Solid (Matrix: Soil/Solid) Client sample ID

					Interior Yellow Painted Exterior Wall Plywood in Garage				
					13-May-2020	----	----	----	----
Analyte	CAS Number	Method	LOR	Unit	VA20A6507-006	-----	-----	-----	-----
					Result	----	----	----	----
TCLP Metals									
pH, TCLP 1st preliminary	----	EPP444	0.010	pH units	5.28	----	----	----	----
pH, TCLP 2nd preliminary	----	EPP444	0.010	pH units	1.55	----	----	----	----
pH, TCLP extraction fluid initial	----	EPP444	0.010	pH units	4.90	----	----	----	----
pH, TCLP final	----	EPP444	0.010	pH units	4.90	----	----	----	----
lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

QUALITY CONTROL REPORT

Work Order	: VA20A6507	Page	: 1 of 3
Client	: Cash Clients Canada	Laboratory	: Vancouver - Environmental
Contact	: Jamie Gleason	Account Manager	: Sneha Sansare
Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 867 334 9660	Telephone	: +1 604 253 4188
Project	: Old Teslin RCMP Detachment	Date Samples Received	: 15-May-2020 11:45
PO	: ----	Date Analysis Commenced	: 22-May-2020
C-O-C number	: ----	Issue Date	: 26-May-2020 16:25
Sampler	: ----		
Site	: ----		
Quote number	: ----		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits
- Reference Material (RM) Report; Recovery and Acceptance Limits
- Method Blank (MB) Report; Recovery and Acceptance Limits
- Laboratory Control Sample (LCS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Janice Leung	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

- Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number = Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
- DQO = Data Quality Objective.
- LOR = Limit of Reporting (detection limit).
- RPD = Relative Percentage Difference
- # = Indicates a QC result that did not meet the ALS DQO.

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
TCLP Metals (QCLot: 42675)						
lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias.

Sub-Matrix: **Soil/Solid**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Matrix Spike (MS) Report				
					Spike Concentration	Recovery (%) MS	Recovery Limits (%)		Qualifier
							Low	High	
TCLP Metals (QCLot: 42675)									
VA20A6507-001	Exterior Blue Painted Trim Board	lead, TCLP	7439-92-1	E444	10 mg/L	95.8	50.0	140	----

Page : 3 of 3
Work Order : VA20A6507
Client : Cash Clients Canada
Project : Old Teslin RCMP Detachment



QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: VA20A6507	Page	: 1 of 6
Client	: Cash Clients Canada	Laboratory	: Vancouver - Environmental
Contact	: Jamie Gleason	Account Manager	: Sneha Sansare
Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 867 334 9660	Telephone	: +1 604 253 4188
Project	: Old Teslin RCMP Detachment	Date Samples Received	: 15-May-2020 11:45
PO	: ----	Issue Date	: 26-May-2020 16:25
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: ----		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.

DQO: Data Quality Objective.

LOR: Limit of Reporting (detection limit).

RPD: Relative Percent Difference.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

RIGHT SOLUTIONS | RIGHT PARTNER



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 15:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 15:00 is used for calculation purposes.

Matrix: **Soil/Solid**

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE total (nitric acid) Exterior Blue Painted Trim Board	E444	22-May-2020	----	----	----		24-May-2020	188 days	10 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE total (nitric acid) Exterior Grey Over red Painted Decking Material	E444	22-May-2020	----	----	----		24-May-2020	188 days	10 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE total (nitric acid) Interior Yellow Painted Ceiling and Interior Wall Plywood in Garage	E444	22-May-2020	----	----	----		24-May-2020	188 days	10 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE total (nitric acid) Interior Yellow Painted Exterior Wall Plywood in Garage	E444	22-May-2020	----	----	----		24-May-2020	188 days	10 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE total (nitric acid) Interior Yellow Painted GWB in Basement Laundry room	E444	22-May-2020	----	----	----		24-May-2020	188 days	10 days	✓	
TCLP Metals : Metals by CRC ICPMS (TCLP)											
HDPE total (nitric acid) Interior Yellow Painted Plywood Wall Covering in Old Basement Cell Block	E444	22-May-2020	----	----	----		24-May-2020	188 days	10 days	✓	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)											
Lab Split - Non-Volatile Leach: 180 Day HT (e.g. metals ex. Hg) Exterior Blue Painted Trim Board	EPP444	13-May-2020	22-May-2020	----	----		----	----	----		



Matrix: **Soil/Solid**

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 180 Day HT (e.g. metals ex. Hg) Exterior Grey Over red Painted Decking Material	EPP444	13-May-2020	22-May-2020	----	----		----	----	----	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 180 Day HT (e.g. metals ex. Hg) Interior Yellow Painted Ceiling and Interior Wall Plywood in Garage	EPP444	13-May-2020	22-May-2020	----	----		----	----	----	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 180 Day HT (e.g. metals ex. Hg) Interior Yellow Painted Exterior Wall Plywood in Garage	EPP444	13-May-2020	22-May-2020	----	----		----	----	----	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 180 Day HT (e.g. metals ex. Hg) Interior Yellow Painted GWB in Basement Laundry room	EPP444	13-May-2020	22-May-2020	----	----		----	----	----	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 180 Day HT (e.g. metals ex. Hg) Interior Yellow Painted Plywood Wall Covering in Old Basement Cell Block	EPP444	13-May-2020	22-May-2020	----	----		----	----	----	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Soil/Solid**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<i>Analytical Methods</i>							
Method Blanks (MB)							
Metals by CRC ICPMS (TCLP)	E444	42675	1	6	16.6	5.0	✔
Matrix Spikes (MS)							
Metals by CRC ICPMS (TCLP)	E444	42675	1	6	16.6	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Metals by CRC ICPMS (TCLP)	E444 Vancouver - Environmental	Soil/Solid	EPA 1311/6020B (mod)	An extract produced by the Toxicity Characteristic Leachate Procedure (TCLP) as per EPA 1311 is analyzed by Collision/Reaction Cell ICPMS.
<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)	EPP444 Vancouver - Environmental	Soil/Solid	EPA 1311	Preparation of a Toxicity Characteristic Leaching Procedure (TCLP) solid sample involves particle size reduction, homogenization, then determination of appropriate extraction fluid. A measured portion of fresh subsample is placed in an extraction bottle with the appropriate extraction fluid then tumbled in a rotary extractor for 18+/- 2 hours at 23 +/- 2 C. The liquid leachate is filtered to separate from solids then bottled and prepared for analytical tests.

APPENDIX B

Forms – PWGSC Preliminary Hazard Assessment Procedure Checklist



PRELIMINARY HAZARD ASSESSMENT FORM PROCEDURE CHECKLIST

PRE CONSTRUCTION HAZARD ASSESSMENT PROCEDURE CHECKLIST:

TYPICAL CONSTRUCTION HAZARDS

Procedures		✓
1.	<p>Concealed/Buried Services</p> <p>Hazards associated with impacting buried services include, but are not limited to the following:</p> <ul style="list-style-type: none"> • Electrical cables/Duct Banks; • Gas pipes; • Water and sewers lines; • Telecommunication cables; and • Underground storage tanks. <p>Verify – when required –BC One Call has been contacted and that the area has been scanned for any concealed/buried electrical/piping/underground storage tanks. Upon completion locate drawing must be submitted.</p> <ul style="list-style-type: none"> • Ensure that the Locator Contractor has verified all concealed/buried services, by properly marking it off on both the site and on the locate drawing. <p>Typical Document(s) Addressing Hazard: Locate Drawing</p>	<input type="checkbox"/>
2.	<p>Slip Hazards or Unsound Footing</p> <p>Verify inherent site hazards that could cause possible slip, or unsound footing. Potential site hazard include but are not limited to the following:</p> <ul style="list-style-type: none"> • Pre-Project <ul style="list-style-type: none"> ○ Wet or oily surfaces; ○ Weather hazards (more likely to occur depending on the season, e.g. fall, winter); ○ Uneven grounding; ○ Obstructed views on pathways; ○ Poor lighting; • During Project <ul style="list-style-type: none"> ○ Housekeeping (tools, storage); ○ Machinery; ○ Equipment; <p>All site hazard assessments and/or any formally scheduled inspection sheet are to be updated on an ongoing basis.</p> <p>Typical Document(s) Addressing Hazard: Site Safety Orientation, Safety Inspection Sheet</p>	<input type="checkbox"/>
3.	<p>Working at Heights</p> <p>Fall hazards are generally identified where falls of greater than 10 ft or the risk of a fall of less than 10 ft could lead to a severe injury (e.g. landing on a sharp/blunt object). Identify suspected areas where these could occur. Potential areas of concern are as follows:</p> <ul style="list-style-type: none"> • Unguarded edges within incomplete building structures; • Scaffolds; • Stairs; • Ladders; and • Mobile lifts (e.g. scissor lifts, man lifts, etc.) <p>Verify that the contractor has properly trained employees where they may be working at heights. Also note that a fall protection plan is required where falls from heights of greater than 25 ft exist.</p> <p>Typical Document(s) Addressing Hazard: Fall Protection Training Certificates, Fall Protection Plan</p>	<input type="checkbox"/>
4.	<p>Working Over or Around Water</p> <p>If workers are required to work adjacent to bodies of water, and are not protected by guardrails or other means of fall protection, fall into water could result in severe/fatal injuries, including the following;</p> <ul style="list-style-type: none"> • Swept away by tide (rapid flow of water); • Caught by strainers and entrapments; • Struck by hazards (stationary objects in the water); 	<input type="checkbox"/>



PRELIMINARY HAZARD ASSESSMENT FORM PROCEDURE CHECKLIST

PRE CONSTRUCTION HAZARD ASSESSMENT PROCEDURE CHECKLIST:

	<ul style="list-style-type: none"> • Struck by debris; • Drowning; • Pollution (e.g. sewage, chemical, water-borne illness); and • Cold water hazards (e.g. cold shock, hypothermia, etc.). <p>Verify the contractor has ensured the following control measures:</p> <ul style="list-style-type: none"> • A suitable rescue boat, equipped with a boat hook, available at the site and capable of being used for rescue at all times; • A buoyant apparatus attached to a nylon rope not less than 3/8 in in diameter, and not less than 50 ft in length; and • A sufficient number of workers who are available when work are underway to implement rescue procedures and who are properly equipped and instructed in those procedures. <ul style="list-style-type: none"> ○ Verify that the workers who are to conduct rescue procedures have the proper personal protective equipment to complete any rescue tasks. <p><i>Typical Document(s) Addressing Hazard: Site Safety Orientation, Rescue Procedure(s)</i></p>	
5.	<p>Heavy Overhead Lifting Operations, Mobile Cranes</p> <p>Three general hazards associated with cranes are as follows:</p> <ul style="list-style-type: none"> • Electrical hazards associated with impact to adjacent power lines. • Crane overloading hazards, leading to damage to the equipment, load, and/or adjacent personnel. • Falling materials hazards, where suspended loads get inadvertently dropped due to mechanical failure, or workers standing directly below the load <p>Verify that the contractor has implemented the following controls:</p> <ul style="list-style-type: none"> • Contractor is to provide a site plan/layout on how they will conduct controls (e.g. insulated barriers/fences/tape) in order to prevent cranes electrical hazards • Contractor is to provide training certificates for all equipment operators and riggers • Contractor to have maintenance checks on the crane on a scheduled basis; • All workers are made aware of not to work below suspended loads, and to be equipped with all required PPE (e.g. hard hats) <p><i>Typical Document(s) Addressing Hazard: Site plans/layouts of where "Danger Areas" for Electrical Hazards Exist, Mobile Crane/Equipment Training Certificates, and Site Safety Orientation</i></p>	<input type="checkbox"/>
6.	<p>Traffic</p> <p>Two types of traffic hazards within construction sites –</p> <ul style="list-style-type: none"> • Onsite traffic (mobile equipment within the site); and/or • Traffic from public roadways. <p>Contractor expected to address onsite traffic through control measures such as site safe orientation, designated walkways, and/or personal protective equipment (e.g. high visibility vests).</p> <p>Public traffic hazards exist when site extends to public roadways. Contractor to implement controls such as traffic barriers, signage, and/or traffic control persons</p> <p><i>Typical Document(s) Addressing Hazard: Site Safety Orientation, Traffic Management Plan</i></p>	<input type="checkbox"/>
7.	<p>Fire and Explosion Hazards</p> <p>These types of hazards exist on sites either via objects on site (e.g. underground storage tanks), but more through equipment/machinery/chemicals brought on site to conduct work. Some of the hazards are generated by various activities/products, as per the following:</p> <ul style="list-style-type: none"> • Welding activities; • Flammable and Combustible chemical products; • Underground storage tanks/pipes that contain a flammable/combustible product (e.g. fuel); • Static electricity from varying equipment (e.g. vacuum trucks); • Power line contact or any other high voltage equipment on site; <p>Typically for welding work, a hot work permit is required. For work with flammable/combustible chemical products, both</p>	<input type="checkbox"/>



PRELIMINARY HAZARD ASSESSMENT FORM PROCEDURE CHECKLIST

PRE CONSTRUCTION HAZARD ASSESSMENT PROCEDURE CHECKLIST:

	<p>WHMIS training and safe work practice/procedure documentation is required prior to use of said product. <i>Typical Document(s) Addressing Hazard: Hot Work Permits, WHMIS Training Certificates</i></p>	
8.	<p>High Noise Levels</p> <p>Typical noise hazards on construction sites are generally brought upon machinery/equipment/tools on site. The noise daily exposure levels are at 85dBA while there is a ceiling limit of 140dBA. The following are examples of what the aforementioned levels would sound like:</p> <ul style="list-style-type: none"> 85 dBA ~ sounds like a food blender or a garbage disposal; 140dBA ~ sounds like a jet take off at 25 meters; Impact/power tools (e.g. rivet guns, jack hammers, etc.); Pneumatic tools (e.g. compressed air); and Mobile equipment, transport vehicles (e.g. trucks); <p>In the event machinery/equipment/tools that generate excessive levels of noise are brought onto site, the contractors must ensure that the operators of their machinery/equipment/tools and all workers adjacent are equipped with the appropriate hearing protection devices (HPD). Verify that contractors have hearing conservations plans as well.</p> <p><i>Typical Document(s) Addressing Hazard: Site Safety Orientation, Hearing Conservation Program, Audiometric tests</i></p>	<input type="checkbox"/>
9.	<p>Excavations</p> <p>The definition of a trench is an excavation less than 3.7 m (12 ft) wide at the bottom, over 1.2 m (4 ft) deep, and of any length. The following list are typical hazards associated with excavations:</p> <ul style="list-style-type: none"> Falls into trenches or excavations; Excavated material or other objects falling onto workers; Exposure to underground services or overhead electrical cables; Unstable adjacent structures; Mishandled or poorly placed materials; Hazardous atmospheres (noxious gases/lack of oxygen); Toxic, irritating or flammable explosive gases; and Incidents involving vehicles and other mobile equipment. <p>Contractors are expected to pre-determine excavation measurements prior to commencing the work, with the assistance of a professional engineer if the trench meets the following criteria:</p> <ul style="list-style-type: none"> the excavation is more than 6 m (20 ft) deep; an improvement or structure is adjacent to the excavation; the excavation is subject to vibration or hydrostatic pressure likely to result in ground movement hazardous to workers; or the ground slopes away from the edge of the excavation at an angle steeper than a ratio of 3 horizontal to 1 vertical. <p>In addition, if the trench requires/uses support structures. The written instructions should be verified by the PWGSC representative.</p> <p><i>Typical Document(s) Addressing Hazard: Excavation Written Instructions, Engineer Documented Inspection of the Excavation</i></p>	<input type="checkbox"/>
10.	<p>Blasting</p> <p>There are several hazards associated with blasting, which include but are not limited to the following:</p> <ul style="list-style-type: none"> Conducting blasting activities; Exposure to various dust/particulate after blasting activities Handling and storing explosive materials; <p>Verify with the contractor that the blaster has been trained/certified, with not only blasting certification course, but also in any safe work procedures written for the storing/handling/use of the explosive materials. The contractor must also have a site specific written emergency procedures on hand.</p> <p><i>Typical Document(s) Addressing Hazard: Blaster's Certificate, WHIMS Training, Blasting Log, and Site Specific Written Emergency Procedures, Work Procedures</i></p>	<input type="checkbox"/>



PRELIMINARY HAZARD ASSESSMENT FORM PROCEDURE CHECKLIST

PRE CONSTRUCTION HAZARD ASSESSMENT PROCEDURE CHECKLIST:

11.	<p>Construction Equipment</p> <p>There are several hazards associated with construction equipment that include but are not limited to the following:</p> <ul style="list-style-type: none"> • Training and supervisor of equipment operators; • Following manufacturer's instruction for operation of equipment; and • Roll over protection systems and use of seat belts in mobile equipment. <p>Verify with contractor that the construction equipment has been maintained as per manufacturer's instructions (via contractor inspection sheet, and third party inspection sheet (where required)).</p> <p>Typical Document(s) Addressing Hazard: Training Certificate (where required), Inspection Sheets of Mobile Equipment</p>	<input type="checkbox"/>
12.	<p>Pedestrian Traffic</p> <p>In the event that the worksite adjacent to the public and/or where site personnel must walk through the site, the following hazards exist:</p> <ul style="list-style-type: none"> • Inadequate traffic controls; • Weather; • Inadequate illumination; • Lack of communication between pedestrians and mobile equipment operators; and • Lack of training for both pedestrians and mobile equipment operators. <p>Verify that the contractor has developed a written orientation plan that addresses the above noted. In addition, to address the public from entering the site, barriers (e.g. fences, hoarding, etc) should be erected in order to cordon of the work site. Personnel should be positioned at access points to ensure that the public doesn't inadvertently enter the site.</p> <p>Typical Document(s) Addressing Hazard: Site Safety Orientation, Site Security Plan (if available), Traffic Management Plan</p>	<input type="checkbox"/>
13.	<p>Multiple Employer Worksite</p> <p>Prime contractor/Principal Contractor/Constructor/Contractor Role – Full responsibility for ensuring health and safety compliance and the health and safety of all contractors and subcontractors that are retained by PWGSC. Verify that the Prime Contractor agreement document has been signed</p> <p>Typical Document(s) Addressing Hazard: Prime Contractor Agreement</p>	<input type="checkbox"/>
14.	<p>Electrical Hazards</p> <p>In addition to Part 1 of this documents, there are several additional hazards associated with electrical on construction sites:</p> <ul style="list-style-type: none"> • Working close to overhead electrical hazards (e.g. power lines); • Mobile equipment maintenance; • Damaged tools/equipment; • Improper grounding; • Damaged insulation; and • Wet conditions <p>Verify that contractor has proper lockout-tagout program/specific procedures to address areas where working with live power. Verify where applicable where any de-energization of power lines need to occur in order to facilitate construction activities. Limits of approach awareness/training should be given to affected staff.</p> <p>Typical Document(s) Addressing Hazard: Lockout/tagout program, Documents from Owner of Power Line (where line has been de-energized), Limits of Approach Notification</p>	<input type="checkbox"/>
15.	<p>Emergency Response</p> <p>Typical site emergencies to be addressed:</p> <ul style="list-style-type: none"> • Fire, explosion; • Earthquake; • Tsunami; • Avalanche; • Forest fires; • Violence in the workplace/public interference; and 	<input type="checkbox"/>



PRELIMINARY HAZARD ASSESSMENT FORM PROCEDURE CHECKLIST

PRE CONSTRUCTION HAZARD ASSESSMENT PROCEDURE CHECKLIST:

	<ul style="list-style-type: none"> Inclement weather. <p>Site contractor is to have emergency response procedures that would address all of the above. Emergency procedures to include the following but not limited to: locations of required first aiders, fire extinguishers, air horns, windsocks, muster stations, drills, designated emergency exits, and nearest hospital.</p> <p>Typical Document(s) Addressing Hazard: Site/emergency specific procedures, First Aid Protocols/Training</p>	
16.	<p>Confined Spaces</p> <p>Typical confined spaces found within worksites</p> <ul style="list-style-type: none"> Piping (e.g. concrete or steel); Crawlspaces; Manholes (e.g. storm drains, sanitary, etc.); Lift stations; Tanks; Boilers; Storage bins; Pits, sumps; Pumping stations; Vessels; Water reservoirs; Vats <p>The following must be addressed:</p> <ul style="list-style-type: none"> Documentation identifying of all confined spaces on site (e.g. hazard assessment per space, or group of spaces); <ul style="list-style-type: none"> All hazard assessments to be completed by a qualified person; and Up to date, relevant entry and rescue procedures. <p>Typical Document(s) Addressing Hazard: Emergency procedures (where required), confined space program, confined space hazard assessment, entry procedure and rescue Procedures, documents confirming that all equipment has been calibrated, training certificates</p>	<input type="checkbox"/>
17.	<p>Chemical Hazards</p> <p>Typical building chemical hazards:</p> <ul style="list-style-type: none"> Asbestos-containing materials (e.g. walls, ceilings, floors, structural components, piping, ducting, mechanical equipment, etc.) Lead-containing materials (e.g. paints, sheeting, glaze off of ceramic tiling, etc.); Polychlorinated Biphenyls (PCBs) (e.g. ballasts, hydraulic oil, etc.); Mercury (e.g. thermostats, switches, fluorescent light tubes, high intensity discharge lighting, etc.); Silica (e.g. any concrete/ceramic materials); <p>Typical site chemical hazards:</p> <ul style="list-style-type: none"> Stored chemicals (e.g. varied chemicals left on site, compressed gas tanks, etc.); and Contaminated site chemicals (e.g. hydrocarbons on soil, etc.) <p>Typical Document(s) Addressing Hazard: Hazardous materials survey report, contaminated site report, chemical specific exposure control plan.WHMIS Program and Training</p>	<input type="checkbox"/>
18.	<p>Biological Hazards</p> <ul style="list-style-type: none"> Refer to specific hazards as listed on the Pre-Construction Hazard Form <p>Note for specific biological hazards, there are specific controls (e.g. handling procedures, personal protective equipment, etc.) that are required for specific hazards. Confirm with contractor they have the required exposure control plans, safe work procedures, and/or risk assessments.</p> <p>Typical Document(s) Addressing Hazard: Exposure control plans, safe work procedures, risk assessments, training</p>	<input type="checkbox"/>
19.	<p>Working Alone/Working in Isolation</p> <p>When working alone/isolation, the risk potential of the above noted hazards occurring listed from 1-18 could be heightened. As such some of the following must be taken into consideration if it is a working along/isolation hazard:</p> <ul style="list-style-type: none"> Length of time employee will be working alone; Are there any forms of communications (e.g. cell phones, radios, etc.); What is the approximate location of work? Is it in a remote area? 	<input type="checkbox"/>



PRELIMINARY HAZARD ASSESSMENT FORM PROCEDURE CHECKLIST

PRE CONSTRUCTION HAZARD ASSESSMENT PROCEDURE CHECKLIST:

	<ul style="list-style-type: none">• What is the nature of work? Confirmation of any of the above would verify whether there exists a working alone hazard. <i>Typical Document(s) Addressing Hazard: Working alone procedure/check in process</i>	
20.	Personal Protective Equipment (PPE) Verify that the contractor has addressed the following for PPE: <ul style="list-style-type: none">• Addressed all known site hazards with applicable PPE (e.g. workplace evaluation);• Verified all required training has been provided for with regards to PPE (e.g. fall protection training);• Verify that a system has been developed with regards to inspection of PPE and a subsequent system for discarding of any damaged PPE; <i>Typical Document(s) Addressing Hazard: PPE Program</i>	<input type="checkbox"/>