REPORT

Limited Pre-Renovation Hazardous Building Materials Assessment

Seven Oaks Pool, 444 Adsum Drive, Winnipeg, Manitoba

Submitted to:

Crosier Kilgour

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Distribution List

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1 INTRODUCTION

WSP Canada Inc. (WSP) was retained by Crosier Kilgour (Client) to conduct a targeted pre-renovation hazardous building materials assessment (HBMA) at the Seven Oaks Pool located at 444 Adsum Drive, (the Site), in Winnipeg, Manitoba. A site walkthrough was conducted on March 25, 2025 with representatives from the Client, the City of Winnipeg and with Kelly Czechmeister, OHS Technologist from WSP. The site walkthrough was conducted to review potential hazardous building materials requiring further sampling. WSP was advised by the Client that sampling would be completed by the City of Winnipeg and that samples would be submitted to WSP to be sent for laboratory analysis.

It is our understanding that the assessment was requested in preparation for planned renovation activities of the Site, outlined in the Memorandum provided by the Client, *Tender 1053-2023*, dated November 2024.

2 PROJECT BACKGROUND

It is WSP's understanding that the assessment was requested to evaluate for hazardous building materials prior to the planned renovations at the Site including:

- Renewal of the pool area including:
  - Concrete restoration of tank floor and walls;
  - Replacement of mortar bed, waterproofing, and ceramic tiles;
  - Replacement of the grounding system; and
  - Replacement of skimmers, main drains, inlets and vacuum ports.

The Site was occupied during the pre-renovation hazardous building materials assessment, as such, destructive bulk sampling was conducted by the City of Winnipeg's asbestos abatement department. WSP proposed to conduct a site walkthrough with the client and the City of Winnipeg to review the areas to be impacted by the proposed scope of work and provide guidance regarding samples to be collected. Bulk samples were collected by the City of Winnipeg and delivered to WSP to be submitted to an accredited laboratory for asbestos analysis.

3 SCOPE OF WORK

Based on communications with the Client, WSP's scope of work included the following:

- Conducting a visual assessment to evaluate for hazardous building materials, including asbestos-containing materials (ACM), lead-containing paint and bulk lead materials, polychlorinated biphenyls (PCB) in fluorescent light ballasts, mercury in thermostats and pressure sensing devices, mercury-vapour in fluorescent light ballasts and tubes, ozone-depleting substances (ODS) in items or systems such as air conditioning units and refrigerators, silica, radioactive materials in smoke detectors, and miscellaneous building maintenance chemicals at the Site targeting the areas of renovation as described;
- Receiving bulk samples of suspect asbestos-containing materials and suspect lead-containing paints from the City of Winnipeg and submitting to an accredited laboratory for analysis; and
- Providing an assessment report summarizing the findings of the assessment.

The assessment by WSP was limited to a visual assessment only. Assessment/sampling of roofing materials or operational building systems (e.g. interior of HVAC equipment, electrical components, etc.) were not included.

4 METHODOLOGY

The HBMA was conducted in general accordance with standards outlined by the Manitoba *Workplace Safety and Health Act and Regulation*, Manitoba Workplace Safety and Health's Guideline entitled *Guide for Asbestos Management*.

The bulk sampling conducted by the City of Winnipeg was semi-destructive in nature; however, limitations may exist in the sampling strategy, for example, WSP did not recommend that the City of Winnipeg penetrate known or suspect ACM to assess for materials concealed behind or beneath.

4.1 Asbestos-Containing Materials

Suspect ACM bulk samples were collected by the City of Winnipeg and submitted to WSP to be sent to a laboratory to be analyzed for asbestos type and percentage content using Polarized Light Microscopy in accordance with NIOSH methodologies and dispersion staining techniques (40 CFR Part 763, Vol. 52, No. 210). WSP recommended that the City of Winnipeg follow the guidelines outlined within the *Manitoba Guideline for Asbestos Management* for the number of bulk samples to be collected for each material given the size of the homogeneous area and that sample locations be temporarily patched with spray-glue and duct tape or caulking.

Upon receipt of the bulk samples at our office in Winnipeg (6 High Level Road), the bulk samples were submitted under chain of custody to EMSL Canada Inc. under a regular turnaround analysis. Prior to submitting the samples for analysis, WSP conducted a review of the submitted samples to assess for gaps in the sample strategy based on the observations collected during the site walkthrough. WSP followed up with the City of Winnipeg to confirm that all suspect materials had been accounted for. The samples were analyzed for asbestos type and percentage content using Polarized Light Microscopy (PLM) and dispersion staining techniques in accordance with EPA methodologies (EPA 600/R-93/116). A regular (5-day) turnaround time for laboratory analysis was requested.

As per the Workplace Safety and Health Regulation (MR 217/2006) ACM is defined as:

- 0.1%, or greater, asbestos in a friable material (can be crumbled with hand pressure);
- 1%, or greater, asbestos in a non-friable material (cannot be crumbled with hand pressure); or
- vermiculite insulation that contains asbestos.

4.2 Lead-Containing Materials

WSP recommended that systematic bulk sampling of suspect lead-containing paints be conducted as part of the assessment. Sampling of suspect lead-containing paint requires the sampling of finished surfaces. Following receipt of the bulk samples at our office in Winnipeg (6 High Level Road), bulk lead samples were submitted to EMSL Canada Inc. to be analyzed for lead percentage content using Atomic Absorption Spectroscopy in accordance with EPA methodologies (SW-846-7000B). WSP conducted a review of the submitted samples to assess for gaps in the sample strategy based on the observations collected during the site walkthrough. A regular (5-day) turnaround time for laboratory analysis was requested.

Miscellaneous lead-containing materials such as lead-acid batteries, glaze on ceramic tile, and lead packing in cast drain lines were documented when observed.

4.3 Polychlorinated Biphenyls

Fluorescent light fixtures within the renovation scope of work were reviewed to evaluate if they have the older style T-12 light tubes. If the T-12 light tubes were observed, the light fixture were assumed to have PCB-containing ballasts. The high-efficiency light fixtures with the newer T-10, T-8, and T-5 style light tubes were assumed to have non-PCB containing ballasts. If the ballast could be observed without impact to the light fixture, the ballasts were inspected, and information from the ballast label were compared to the criteria found in the Environment Canada, Report EPS 2/CC/2 (revised) August 1991, *Identification of Lamp Ballasts Containing PCBs* to assess their likelihood of being PCB-containing. WSP did not open any light fixtures or remove light fixture covers unless the light fixtures had been de-energized and verified as such by an electrician. WSP did not allow for the sampling of suspect PCB-containing dielectric fluid located within transformers and other electrical equipment.

4.4 Other Hazardous Building Materials

Other hazardous building materials, including mercury in equipment and fixtures, radioactive building components, ozone-depleting substances (ODS), and miscellaneous building maintenance chemicals, were documented when observed.

A review of materials suspected to contain silica was conducted during the assessment.

5 REGULATIONS AND GUIDELINES

The regulations, guidelines, and standards relevant to hazardous building materials include the Manitoba Workplace Safety and Health Regulation (M.R. 217/06), Manitoba Workplace Safety and Health Division's guideline entitled *Guide for Asbestos Management* (November 2020), and the Manitoba Department of Conservation, Hazardous Waste Program Division, Dangerous Goods Handling and Transportation Act.

5.1 Asbestos-Containing Materials

M.R. 217/06 addresses asbestos materials that may be present within buildings and sets forth individual regulations regarding their control and/or removal. Control and/or removal of designated substances are clearly outlined under Section 33 and 36 of this guideline, the purpose of which is to limit/prevent occupational exposures prior to any demolition activities. Section 33 of the guideline requires that, prior to beginning a demolition project, a document summarizing the presence of these substances must be available to contractors and subcontractors requesting tenders.

Specific minimum requirements concerning the handling, removal, and disposal of asbestos within a Manitoba workplace is outlined in the Manitoba Workplace Safety and Health Division's Guideline entitled *Guide for Asbestos Management.* This document clearly outlines monitoring exposure limits, training requirements, personal protection, removal procedures, sampling requirements and general information concerning the safe and effective removal of all ACMs.

As per the Workplace Safety and Health Regulation (MR 217/2006) ACM is defined as:

- 0.1%, or greater, asbestos in a friable material (can be crumbled with hand pressure);
- 1%, or greater, asbestos in a non-friable material (cannot be crumbled with hand pressure); or
- vermiculite insulation that contains asbestos.

5.2 Lead-Containing Materials

Lead is regulated under M.R. 217/06. Generally, removal of lead paint is not required unless works on these materials are likely to produce airborne lead dust or fumes (e.g., during welding, torch cutting, sanding, and sandblasting). If these operations are likely to occur during building renovation or alteration, it is recommended that the removal of lead-based paint be carried out in accordance with procedures outlined in M.R. 217/06. M.R. 217/06 does not include criteria for a quantitative classification of lead-containing paint. In the absence of provincial quantitative criteria for lead-containing paint, the federal Surface Coating Materials Regulations (SOR/2005-109) value of 90 mg/kg (90 ppm) has been adopted as a screening value for the purposes of this assessment.

5.3 Other Hazardous Materials

Section 33 (Demolition) and Section 36 (Chemical and Biological Substances) of M.R. 217/06 clearly outline the requirement for an assessment of hazardous substances, such as mercury and silica, which may present a health risk to workers during renovation or alteration activities.

Manitoba regulates ODSs under Ozone Depleting Substances and Other Halocarbons Regulation (M.R. 103/94). Equipment containing ODSs should be maintained or removed by a trained and licensed contractor and handled in accordance with provincial regulations. ODSs are present in refrigerators and freezers, vending machines (refrigerated), water fountains/water coolers, and air conditioning systems.

M.R. 474/88 sets out standards for the design and operation of storage sites for waste polychlorinated biphenyls (PCBs). The regulation specifies requirements in relation to record keeping at the site and the reporting of such information to Manitoba Environment and Climate Change (MECC). In addition, the regulation stipulates that a written authorization from MECC is required prior to the disposal of PCB waste.

MECC has also published a guideline document titled *"Managing Demolition Debris Containing Hazardous Materials"* dated June 12, 2020. This guide provides information and guidance based on provincial hazardous waste statutes and regulations regarding proper management of building renovation and demolition wastes that contain, or may contain, hazardous materials such as lead, mercury, or PCBs. This guideline recommends that building material with paints/coatings 100 ppm lead content or higher be evaluated for characteristics of leachable toxic waste (TCLP). Lead leachate results >5 mg/L are characterized as leachable toxic waste and require appropriate packaging, transportation and disposal at a licensed hazardous waste facility. Per the guideline painted metal surfaces (i.e. lead-containing paint is in good condition, adhered to the metal substrate) do not require TCLP testing prior to recycling at licensed metal recycler. The guideline further clarifies that PCBs above the regulated levels (greater than 50 ppm), these building materials must be handled and disposed of in accordance with:

- the PCB Storage Site Regulation, M.R. 474/1988;
- the Hazardous Waste Regulation, M.R. 195/2015;
- the federal PCB Regulation, SOR/2008-273; and
- the federal Transportation of Dangerous Goods Regulation, SOR/2017-253.

In 1994, the federal government filed the *Ozone-Depleting Substances Regulations* to amend controls on production and consumption of chlorofluorocarbons (CFC), halons, tetrachloride, and methyl-chloroform. The Federal Halocarbon Regulations, 2003 (SOR/2003-289), was filed to ensure uniformity with respect to the

release, recovery, and recycling of ODS and their halocarbon alternatives in refrigeration and air conditioning. *The Canadian Environmental Protection Act* (1999), *Ozone-Depleting Substances Regulations*, 1998, (including amendments up to 2007, SOR/2007-129) controls the import, manufacture, use, sale, and export of ODS. The regulation also requires that permits be obtained to import, or export used, recovered, recycled, and reclaimed ODS.

Radioactive material found in smoke detectors is regulated under the *Nuclear Safety and Control Act* (amended July 2013). Americium can be found in smoke detectors and is used to detect the presence of smoke or heat. The Nuclear Substances and Radiation Devices Regulation (SOR 2000-207) defines the disposal requirements of smoke detectors that contain a nuclear substance.

Silica is used in the manufacture of glass, ceramics, abrasives, water treatment products and filtration systems. Crystalline silica materials are also used in the production of concrete or mortar-based building materials, cement, acoustic ceiling tiles, and ceramic tiles which are used for construction purposes. Common construction sand contains free crystalline silica and is present in ceiling tiles, concrete products, mortar and brick.

While no specific guidelines exist within Manitoba, The Ontario Ministry of Labour issued the “Silica on Construction Projects” guideline in September 2004 (updated April 2011) which provides useful information related to managing silica hazards. The guidelines include legal requirements, health effects, controls of the health hazard, classification of construction operations, and measures and procedures for working with the designated substance during operations that create silica.

The transportation of hazardous wastes is governed under the *Transportation of Hazardous Goods (TDG) Act* and Regulations outlines the requirements for storage, handling, and transportation of hazardous waste.

6 SITE DESCRIPTION

Table 1: Building Overview

Item	Details	Comments
Building Construction Date [(a)]	The original building was constructed circa 1977.	WSP was advised that renovations to the splash pad, washrooms, mechanical room and accessibility chair lift were conducted in 2016. WSP was also advised that the roof was redone in 2023.
Building Use	The Site includes a public pool, change rooms, washrooms, office space, and mechanical room.	The Site was occupied at the time of the assessment. Areas visited during the site walkthrough include the public pool, change rooms, washrooms, basement tunnels and mechanical room.
Number of Floors/Levels	Two, main floor and basement.	
Structure	The main building’s structure is load-bearing cinderblock structure on a concrete foundation.	
Exterior Cladding	CMU & Metal cladding. WSP was advised that the building envelope was redone in 1995	The exterior was excluded from the scope of work.
Roof	WSP was advised that the roof had been redone in 2023.	The roof and roofing systems were excluded from the scope of work.

Item	Details	Comments
HVAC and Plumbing	Heating and cooling to the main building is provided forced-air furnace present in the furnace room.	Mechanical systems were in operation at the time of the assessment. Ducting and piping were observed to either be uninsulated or insulated with fiberglass. Fiberglass insulation is not suspected to contain asbestos.
Flooring	Ceramic floor tiles, concrete and soil.	
Interior Walls	Cinderblock walls.	Interior cinderblock walls are not expected to be impacted by the planned renovations and were excluded from the scope of work.
Exterior Walls	Cinderblock walls and metal cladding.	Exterior cinderblock walls are not expected to be impacted by the planned renovations and were excluded from the scope of work.
Ceiling	Lay-in acoustic ceiling tiles, wood slats, wood decking and fixed gypsum board/drywall ceiling	
Lighting	Lighting within the building consisted of a combination of fluorescent lights and light-emitting diodes (LEDs).	Fluorescent light bulbs contain mercury-vapour. The mercury-containing light bulbs are not expected to be impacted by the planned renovations.

(a) Based on information provided by the client.

7 HISTORICAL REPORTS

Prior the assessment, the Client provided WSP with the following documents for review:

- Asbestos Inventory Control, dated December 7, 2022

The following materials were found, or presumed, to be asbestos containing:

- Drywall joint compound (throughout)
- Stipple texture ceiling (men/women’s washroom)
- Duct insulation (mastic only) (mechanical room)
- Duct mastic 6”x6” (mechanical room)
- Duct sealant (red/brown) (mechanical room)
- Black mastic / tar (mechanical room)
- Cementitious product at wall (wall near electrical panel)
- Pipe gasket (pipes)
- Duct insulation (mastic only) (interior) (air handling units)
- Mastic (interior on supply ductwork coating) (air handling units)

It should be noted that some of the asbestos-containing materials listed above, may have been fully or partially removed from the Site. It was beyond WSP's scope of work to review if the materials listed above were present on Site or to conduct a condition assessment.

8 RESULTS AND DISCUSSION

A complete list of the asbestos bulk samples collected and submitted for laboratory analysis are included in Appendix A. The Laboratory Certificates of Analysis for the bulk samples collected are included in Appendix B. Select site photographs collected during the assessment are provided in Appendix C.

8.1 Asbestos-Containing Materials

A total of twenty-seven bulk samples of building materials were collected by The City of Winnipeg and tested for asbestos content during the assessment. A total of thirty distinct layers were analyzed due to the presence of multiple layers. Asbestos was detected in three of the analyzed layers. The positive sample results are provided in Table 2: Positive Asbestos Sample Results

Table 2: Positive Asbestos Sample Results

Sample Number	Material Description	Sample Location	Asbestos Type and Percentage
A-08A	**Mastic (Red/Silver)**	**Basement, at Pipe Tunnel**	**7% Chrysotile**
A-08B	**Mastic (Red/Silver)**	**Basement, at Pipe Tunnel**	**7% Chrysotile**
A-08C	**Mastic (Red/Silver)**	**Basement, at Pipe Tunnel**	**5% Chrysotile**

The bulk samples were analyzed via polarized light microscopy using US EPA Test Method EPA 600/R-93/116.
Sample descriptions and numbers provided by the City of Winnipeg.

All three mastic samples collected from the HVAC unit in the basement, at the pipe tunnel area were found to contain 5% to 7% chrysotile asbestos.

Suspect red fire stopping was observed at pipe penetrations during the site walkthrough. If this material will be impacted by the planned renovations, WSP recommends collecting a minimum of three samples and submitting for asbestos analysis. In the absence of sample results, the red fire stopping should be treated as asbestos containing.

Based on a review of the historical sample results provided, the following asbestos-containing materials may be impacted by the planned renovations:

- Duct insulation (mastic only) (mechanical room)
- Duct mastic 6"x6" (mechanical room)
- Duct sealant (red/brown) (mechanical room)
- Black mastic / tar (mechanical room)

8.2 Lead-Containing Paint

Five bulk samples of paint suspected to be lead-containing were collected and submitted for analysis. None of the paint samples were noted to have lead concentrations above the *Surface Coating Materials Regulations* SOR/2016-193 screening criteria of 90 ppm and the paints are not considered to be lead-containing. The lead paint sample results are provided in Table 3: Lead Paint Analysis Results. The laboratory report is provided in Appendix B.

Table 3: Lead Paint Analysis Results

Sample Number	Sample Location	Sample Colour and Substrate	Lead Concentration (ppm)	Lead-Containing Paint [a] (Yes/No)	Condition of Material
L-01	Main Floor, Diving Board Base	Yellow, Concrete	<64[b]	No	Good
L-02	Main Floor, Diving Board Base	Grey, Concrete	<64	No	Good
L-03	Basement	White, Concrete	<64	No	Good
L-04	Basement	Yellow, Concrete	<64	No	Good
L-05	Basement	Grey, Concrete	<64	No	Good

a) Based on Surface Coatings Materials Regulations, SOR/2016-193 classification of 90 ppm.
b) "<" indicates less than the reportable detection limit for that sample
c) Sample descriptions and numbers provided by the City of Winnipeg.

8.3 Miscellaneous Lead-Containing Materials

WSP did not observe miscellaneous lead-containing materials expected to be impacted by the renovation scope of work.

8.4 Mercury-Containing Equipment and Bulbs

Lighting within the pool could not be assessed but there is a potential that the bulbs contain mercury. Further assessment should be completed once the pool has been closed and emptied.

8.5 Polychlorinated Biphenyls

WSP did not observe light fixtures suspected to contain polychlorinated biphenyls and expected to be impacted by the renovation scope of work.

8.6 Radioactive Building Components

Smoke detectors suspected to contain radioactive building components and expected to be impacted by the renovation scope were not observed during the assessment.

8.7 Ozone Depleting Substances

Equipment suspected to contain ozone-depleting substances and expected to be impacted by the renovation scope of work were not observed during the assessment.

8.8 Silica

Silica is presumed to be present in building materials constructed from raw aggregates, such as concrete, ceramic tiles, grout and mortar, gypsum board/drywall, ceiling tiles, and cinderblock walls throughout the assessment area.

9 CONCLUSIONS AND RECOMMENDATIONS

Based on the visual assessment and the laboratory analytical results, the following project specific conclusions and recommendations are provided.

9.1 Asbestos-Containing Materials

Based on the review of historical reports, the site observations and analytical results, asbestos was identified in the following building materials which may be impacted by the planned renovations:

- Red/silver mastic on HVAC throughout the basement.
- Duct insulation (mastic only) (mechanical room)
- Duct mastic 6”x6” (mechanical room)
- Duct sealant (red/brown) (mechanical room)
- Black mastic / tar (mechanical room)

Red fire stopping at pipe penetrations is presumed to be asbestos containing and should be treated as such unless additional representative sampling indicates otherwise.

If additional suspect asbestos-containing building materials are encountered during the renovation activities, additional sampling shall be undertaken to evaluate asbestos content.

Prior to renovation or demolition, ACMs that will be directly impacted must be removed and disposed of following provincial regulations. Asbestos removal work shall be completed by trained and competent workers as required by Manitoba Safety and Health. Throughout the asbestos abatement activities, appropriate air monitoring and site assessments shall be conducted to assess and document that contamination is contained, and that ACM are removed and disposed of appropriately. When practical, multiple ACMs can be removed within the same containment (provided they do not have other hazardous materials) following the most stringent asbestos removal procedures for the materials scheduled for removal. Asbestos waste must be packaged, transported and disposed of in accordance with provincial and federal requirements.

At a minimum, workers must be made aware of the presence of ACMs in the renovation work area and safe work procedures should be developed to manage the hazard during the renovation activities.

9.2 Lead-Containing Paints

Lead concentrations above the *Surface Coatings Materials Regulations*, SOR/2016-193, screening value of 90 ppm were not identified during the assessment.

If additional suspect lead-containing building materials are encountered during renovation activities, additional sampling should be undertaken to evaluate lead content.

9.3 Miscellaneous Lead-Containing Materials

If encountered and expected to be impacted by the planned renovations, lead-acid batteries cannot be disposed of as demolition waste, and therefore must be removed, packaged, transported and recycled at a licensed facility for recycling or disposal in accordance with provincial and federal regulations.

9.4 Mercury-Containing Equipment and Bulbs

If encountered and expected to be impacted by the planned renovations, mercury-vapour in bulbs and mercury-containing thermostat capsules pose a risk to workers when the light bulbs are broken and disturbed. Safe work procedures should be followed when handling suspect mercury-containing fixtures and thermostat capsules and they should be kept separate from all other waste. Mercury-containing fixtures and capsules must be identified, packaged and appropriately labelled, manifested and transported to an approved disposal facility in accordance with regulations specified by Environment Canada.

9.5 Polychlorinated Biphenyls

If encountered and expected to be impacted by the planned renovations, ballasts in the light fixtures should be examined for PCB content. All ballasts should be compared to the criteria found in the Environment Canada Report EPS 2/CC/2 (revised) August 1991, Identification of Lamp Ballasts Containing PCBs to assess their likelihood of containing PCBs. PCB-containing ballasts must be properly removed and disposed of. Disposal of the ballasts must be conducted in accordance with federal and provincial regulations. As they are removed, PCB-containing ballasts must be placed in labelled drums located in a secure area. Once full, the drums must be manifested and transported to an approved destruction and disposal facility.

In accordance with Section 13.1 of the *Waste Control Regulation*, PCB-containing equipment is defined as any equipment, machinery, or similar manufactured items, including a capacitor, and an electrical transformer, that contains a PCB liquid or solid. This definition includes fluorescent light ballasts which contain PCBs in the capacitor.

9.6 Radioactive Building Components

Smoke detectors suspected to contain radioactive building materials were not observed during the assessment. If encountered and expected to be impacted by the planned renovations, equipment such as smoke detectors must be removed and reused, recycled or disposed of prior to demolition. Removal and disposal must be conducted in accordance with the Nuclear Safety and Control Act (S.C. 1997), Nuclear Substances and Radiation Device Regulation SOR/200020.7.

9.7 Ozone Depleting Substances

Refrigerated equipment suspected to contain ODS not was observed by WSP during the assessment.

If observed and scheduled for removal equipment such as refrigerators, water fountains, freezers and HVAC units shall have the refrigerants be drained and collected by a certified refrigeration technician following provincial and federal regulations. Records shall be kept detailing the quantities by refrigerant types removed.

9.8 Silica

Disturbance of silica containing products including concrete or mortar during renovation, demolition or other similar activities may result in excessive exposures to airborne silica, especially if performed dry and indoors. Precautions should be taken to prevent silica-containing particulate from becoming airborne during the completion of renovation or demolition activities. It is recommended that all work be conducted in accordance with a Site-specific demolition plan which should address such items as demolition methods, worker training and protection, decontamination procedures, dust suppression, and transportation and disposal of waste.

10 SURVEY LIMITATIONS

This report is based on data and information collected by WSP during the assessment conducted on March 25, 2025 and is based solely on-site conditions encountered at the time of the assessment. Bulk samples were collected and submitted to WSP by a third party, (City of Winnipeg) and WSP cannot guarantee the accuracy of the sample descriptions and numbers used. Any use of this document or the findings, conclusions or recommendations provided in this report by any person other than client is at the sole risk of such user.

The conclusions and recommendations contained in this survey report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations.

The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report. No assurance is made regarding changes in conditions or practices subsequent to the time of the investigation.

The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by the request of the Client, the time and budgetary constraints imposed by the Client, and availability of access to the property.

Because of the limitations stated above, the findings, observations and conclusions expressed by WSP in this report are not, and must not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial, or local laws or regulations.

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

WSP's assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations, or policies of federal, provincial, or local governmental agencies. Any use of the survey report constitutes acceptance of the limits of WSP's liability.

WSP's liability extends only to its client and not to other parties who may obtain this survey report. Issues raised by the report must be reviewed by appropriate legal counsel.

Through the course of the assessment, WSP has relied in good faith on information provided by others. We accept no responsibility for any deficiency, misstatements or inaccuracies contained in this report as a result of omissions, misinterpretations or fraudulent acts of the persons involved.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance in the management of identified materials. Contractors bidding on or undertaking any work should rely on their own investigations, as well as their own interpretations of the factual data presented in this report, as to how concealed conditions may affect their work, including but not limited to proposed techniques, schedule, safety and equipment capabilities.

11 CLOSURE

We trust the information presented in this report meets your requirements. If you have any questions on this assessment report, please contact Kara Snelling at (403) 477-1642 or email at kara.snelling@wsp.com. Thank you for the opportunity to be of service. We look forward to working with you again in the future.

Signature Page

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https://wsponlinecan.sharepoint.com/sites/ca-2024ca337984/shared documents/06. deliverables/ca0052164.7984_dft_crosier kilgour_sevenoakspool_winnipeg_mb_apr2025.docx

APPENDIX A

Asbestos Sample Results

Table A1: Complete Asbestos Sample Results

Sample Number	Material Description	Sample Location	Asbestos Detected: No/Yes: Type and %
A-01A	Ceramic Tile, Grout and Mortar	Pool Deck - Under Southwest lifeguard chair	None Detected
A-01B	Ceramic Tile, Grout and Mortar	Pool Deck - Under South Central lifeguard chair	None Detected
A-01C	Ceramic Tile, Grout and Mortar	Pool Deck - Under Southeast lifeguard chair	None Detected
A-02A	Patch Compound	Pool Deck - Southwest @ Pole under lifeguard	None Detected
A-02B	Patch Compound	Pool Deck - South centre @ Pole under lifeguard	None Detected
A-02C	Patch Compound	Pool Deck - Southeast @ Pole under lifeguard	None Detected
A-03A	Skim Coat	Diving Board - Concrete Base South	None Detected
A-03B	Skim Coat	Diving Board - Concrete Base North	None Detected
A-03C	Skim Coat	Diving Board - Concrete Base North	None Detected
A-04A	Skim Coat Patch	Diving Board - Concrete Base South	None Detected
A-04B	Skim Coat Patch	Diving Board - Concrete Base South	None Detected
A-04C	Skim Coat Patch	Diving Board - Concrete Base South	None Detected
A-05A	Skim Coat Patch	Diving Board - Concrete Base North	None Detected
A-05B	Skim Coat Patch	Diving Board - Concrete Base North	None Detected
A-05C	Skim Coat Patch	Diving Board - Concrete Base North	None Detected
A-06A	Skim Coat	Restaurant	None Detected
A-06B	Skim Coat	Restaurant	None Detected
A-06C	Skim Coat	Kitchen	None Detected
A-07A	Parging	Basement - Under Pool pipe penetrations	None Detected
A-07B	Parging	Basement - Under Pool pipe penetrations	None Detected
A-07C	Parging	Basement - Under Pool pipe penetrations	None Detected
A-08A	**Mastic (Red/Silver)**	**Basement at Pipe Tunnel**	**7% Chrysotile**
A-08B	**Mastic (Red/Silver)**	**Basement at Pipe Tunnel**	**7% Chrysotile**

Sample Number	Material Description	Sample Location	Asbestos Detected: No/Yes: Type and %
A-08C	**Mastic (Red/Silver)**	**Basement at Pipe Tunnel**	**5% Chrysotile**
A-09A	Mastic (Black)	Basement Tunnel Wall	None Detected
A-09B	Mastic (Black)	Basement Tunnel Wall	None Detected
A-09C	Mastic (Black)	Basement Tunnel Wall	None Detected

The bulk samples were analyzed via polarized light microscopy using US EPA Test Method EPA 600/R-93/116.
Sample descriptions and numbers provided by the City of Winnipeg.
Sample descriptions may not match what is listed in the laboratory certificate of analysis.

APPENDIX B

Laboratory Certificates of Analysis

EMSL Canada Inc.

416 Meridian Road SE, Building C Calgary, AB T2A 1X2
Tel/Fax: (403) 879-1149 / (403) 879-1152
http://www.EMSL.com / CalgaryLab@EMSL.com

EMSL Canada Order:	652505047
Customer ID:	55EHPL50
Customer PO:	
Project ID:	

Attention:	Kelly Czechmeister	**Phone:**	(403) 299-5600
	WSP Canada Inc.	**Fax:**	(403) 299-5606
	Suite 120, 8610 - 36 Street NE	**Received Date:**	04/28/2025 11:50 AM
	Calgary, AB T3J 2E1	**Analysis Date:**	04/28/2025 - 04/29/2025
		Collected Date:	04/12/2025
Project:	CA0052164.7984 - SEVEN OAKS POOL		

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
A-01A - Grout *652505047-0001*	POOL DECK - UNDER SOUTHWEST LIFEGUARD CHAIR - CERAMIC TILE, GROUT AND MORTAR	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-01A - Mortar *652505047-0001A*	POOL DECK - UNDER SOUTHWEST LIFEGUARD CHAIR - CERAMIC TILE, GROUT AND MORTAR	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
A-01B - Grout *652505047-0002*	POOL DECK - UNDER SOUTH CENTRAL LIFEGUARD CHAIR - CERAMIC TILE, GROUT AND MORTAR	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-01B - Mortar *652505047-0002A*	POOL DECK - UNDER SOUTH CENTRAL LIFEGUARD CHAIR - CERAMIC TILE, GROUT AND MORTAR	Beige Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
A-01C - Grout *652505047-0003*	POOL DECK - UNDER SOUTHEAST LIFEGUARD CHAIR - CERAMIC TILE, GROUT AND MORTAR	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-01C - Mortar *652505047-0003A*	POOL DECK - UNDER SOUTHEAST LIFEGUARD CHAIR - CERAMIC TILE, GROUT AND MORTAR	Beige Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
A-02A *652505047-0004*	POOL DECK - SOUTHWEST @ POLE UNDER LIFEGUARD - PATCH COMPOUND	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-02B *652505047-0005*	POOL DECK - SOUTH CENTRE @ POLE UNDER LIFEGUARD - PATCH COMPOUND	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Report amended: 05/08/2025 07:27:00 Replaces initial report from: 04/29/2025 11:01:05 Reason Code: Client-Other (see report comment)

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Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
A-02C *652505047-0006*	POOL DECK - SOUTHEAST @ POLE UNDER LIFEGUARD - PATCH COMPOUND	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-03A *652505047-0007*	DIVING BOARD - CONCRETE BASE SOUTH - SKIM COAT	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-03B *652505047-0008*	DIVING BOARD - CONCRETE BASE NORTH - SKIM COAT	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-03C *652505047-0009*	DIVING BOARD - CONCRETE BASE NORTH - SKIM COAT	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
A-04A *652505047-0010*	DIVING BOARD - CONCRETE BASE SOUTH - SKIM COAT PATCH	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
A-04B *652505047-0011*	DIVING BOARD - CONCRETE BASE SOUTH - SKIM COAT PATCH	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
A-04C *652505047-0012*	DIVING BOARD - CONCRETE BASE SOUTH - SKIM COAT PATCH	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
A-05A *652505047-0013*	DIVING BOARD - CONCRETE BASE NORTH - SKIM COAT PATCH	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
A-05B *652505047-0014*	DIVING BOARD - CONCRETE BASE NORTH - SKIM COAT PATCH	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
A-05C *652505047-0015*	DIVING BOARD - CONCRETE BASE NORTH - SKIM COAT PATCH	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
A-06A *652505047-0016*	RESTAURANT - SKIM COAT	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
A-06B *652505047-0017*	RESTAURANT - SKIM COAT	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
A-06C *652505047-0018*	KITCHEN - SKIM COAT	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
A-07A *652505047-0019*	BASEMENT - UNDER POOL PIPE PENETRATIONS - PARGING	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
A-07B *652505047-0020*	BASEMENT - UNDER POOL PIPE PENETRATIONS - PARGING	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected

Report amended: 05/08/2025 07:27:00 Replaces initial report from: 04/29/2025 11:01:05 Reason Code: Client-Other (see report comment)

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EMSL Canada Order:	652505047
Customer ID:	55EHPL50
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
A-07C *652505047-0021*	BASEMENT - UNDER POOL PIPE PENETRATIONS - PARGING	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
A-08A *652505047-0022*	BASEMENT AT PIPE TUNNEL - MASTIC (RED / SILVER)	Red/Silver Non-Fibrous Homogeneous		93% Non-fibrous (Other)	**7% Chrysotile**
A-08B *652505047-0023*	BASEMENT AT PIPE TUNNEL - MASTIC (RED / SILVER)	Red/Silver Non-Fibrous Homogeneous		93% Non-fibrous (Other)	**7% Chrysotile**
A-08C *652505047-0024*	BASEMENT AT PIPE TUNNEL - MASTIC (RED / SILVER)	Red/Silver Non-Fibrous Homogeneous		95% Non-fibrous (Other)	**5% Chrysotile**
A-09A *652505047-0025*	BASEMENT TUNNEL WALL - MASTIC (BLACK)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-09B *652505047-0026*	BASEMENT TUNNEL WALL - MASTIC (BLACK)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
A-09C *652505047-0027*	BASEMENT TUNNEL WALL - MASTIC (BLACK)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Report Comment: **switched descriptions for samples 08ABC and 09ABC**

Analyst(s)

Alexandra Carlson (8)
Kurt Carlson (22)

Jefferson Salvador, Laboratory Manager
or Other Approved Signatory

Report amended: 05/08/2025 07:27:00 Replaces initial report from: 04/29/2025 11:01:05 Reason Code: Client-Other (see report comment)

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EMSL Canada Or	652505043
CustomerID:	55EHPL50
CustomerPO:	
ProjectID:	

Attn: **Kelly Czechmeister**
WSP Canada Inc.
Suite 120, 8610 - 36 Street NE
Calgary, AB T3J 2E1

Phone: (403) 299-5600
Fax: (403) 299-5606
Received: 4/28/2025 11:50 AM
Collected:

Project: **CA0052164.7984 - SEVEN OAKS POOL**

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

Client Sample Description	*Lab ID*	*Collected*	*Analyzed*	*Weight*	*Lead Concentration*
L-01	*652505043-0001*		4/28/2025	0.2630 g	<64 ppm
	Site: DIVING BOARD BASE Desc: PAINT (YELLOW)				
L-02	*652505043-0002*		4/28/2025	0.2540 g	<64 ppm
	Site: DIVING BOARD BASE Desc: PAINT (GREY)				
L-03	*652505043-0003*		4/28/2025	0.2615 g	<64 ppm
	Site: BASEMENT CONCRETE WALL Desc: PAINT (WHITE)				
L-04	*652505043-0004*		4/28/2025	0.2561 g	<64 ppm
	Site: BASEMENT CONCRETE WALL Desc: PAINT (YELLOW)				
L-05	*652505043-0005*		4/28/2025	0.2573 g	<64 ppm
	Site: BASEMENT CONCRETE WALL Desc: PAINT (GREY)				

Jefferson Salvador, Laboratory Manager
or other approved signatory

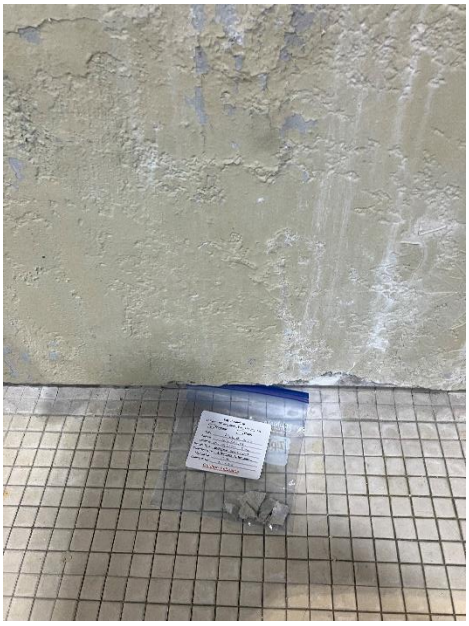
Initial report from 04/28/2025 16:16:04

APPENDIX C

Select Site Photographs

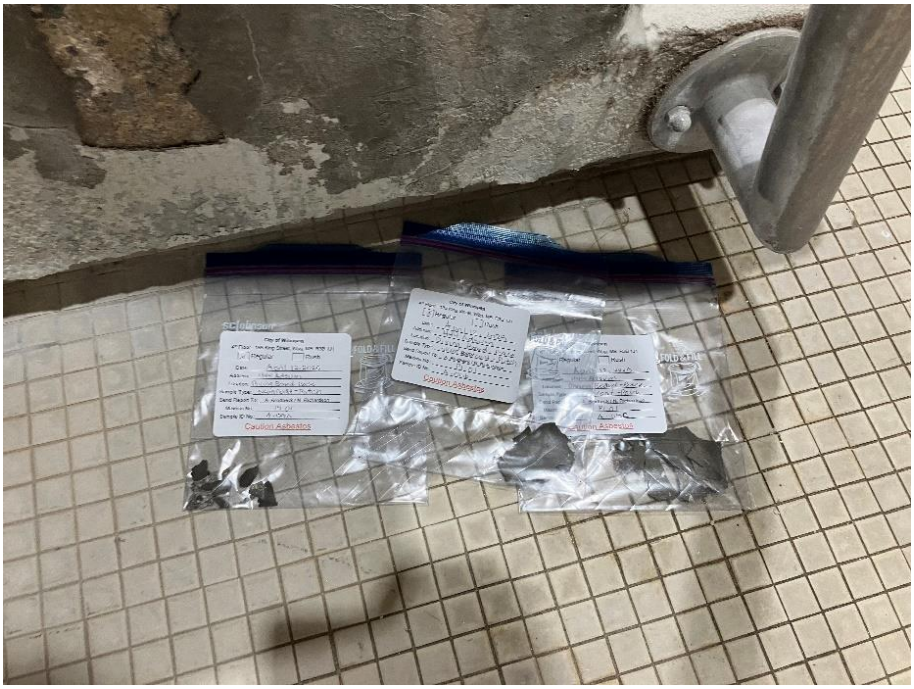
Photograph 1: Sample Group A-01 - Example of Ceramic Tile, Grout and Mortar, Asbestos Not Detected

Photograph 2: Sample Group A-02 – Example of Patch Compound, Asbestos Not Detected

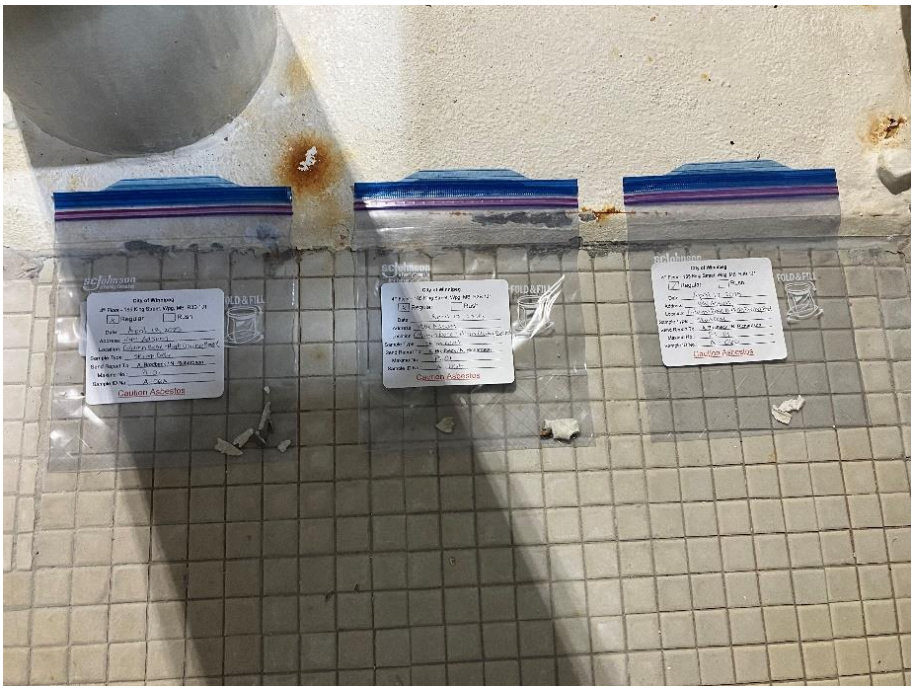


Photograph 3: Sample Group A-03 – Example of Skim Coat, Asbestos Not Detected

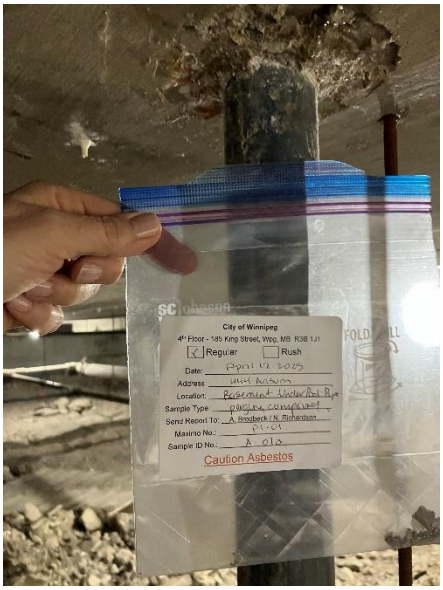
Photograph 4: Sample Group A-04 – Example of Skim Coat Patch, Asbestos Not Detected



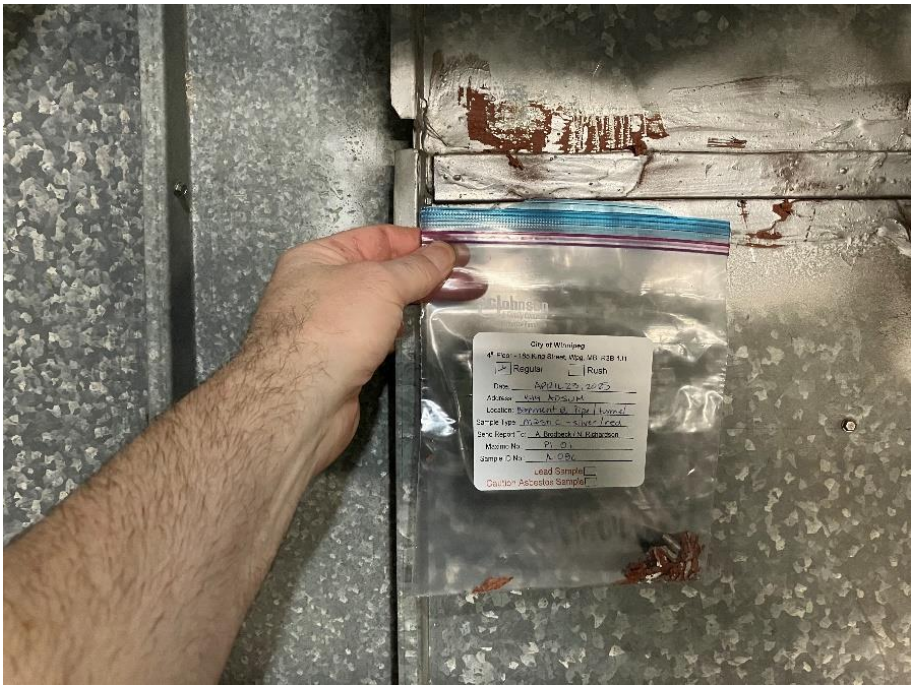
Photograph 5: Sample Group A-05 – Example of Skim Coat Patch, Asbestos Not Detected



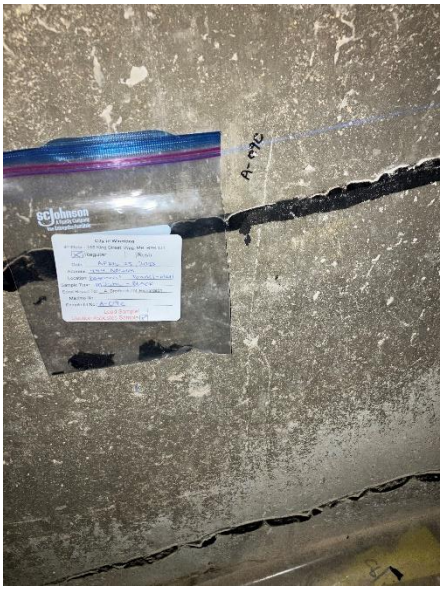
Photograph 6: Sample Group A-06 – Example of Skim Coat, Asbestos Not Detected



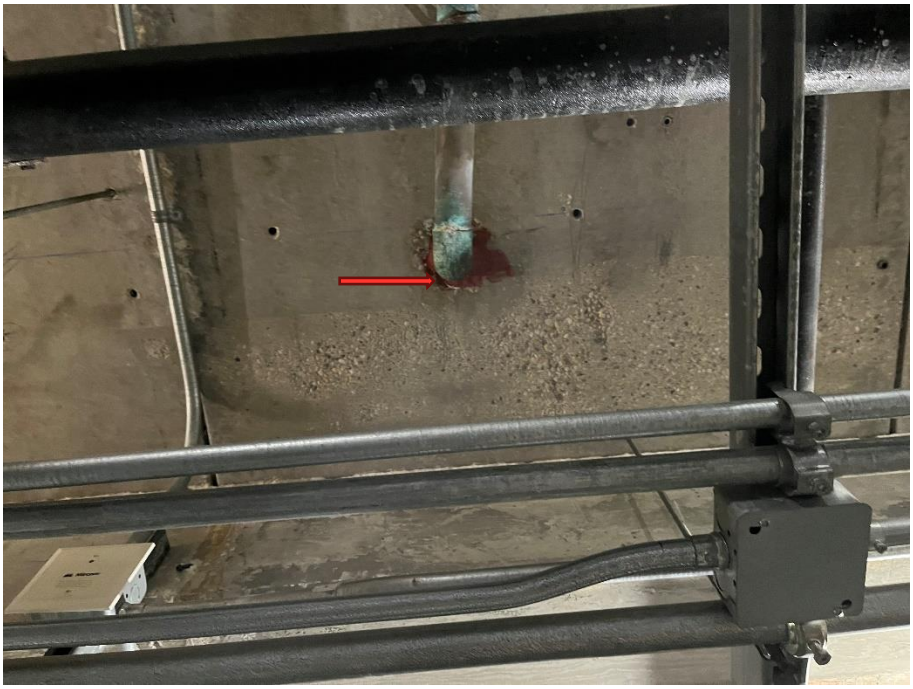
Photograph 7: Sample Group A-07 – Example of Parging, Asbestos Not Detected



Photograph 8: Sample Group A-08 – Asbestos-Containing Mastic (Red/Silver) on HVAC

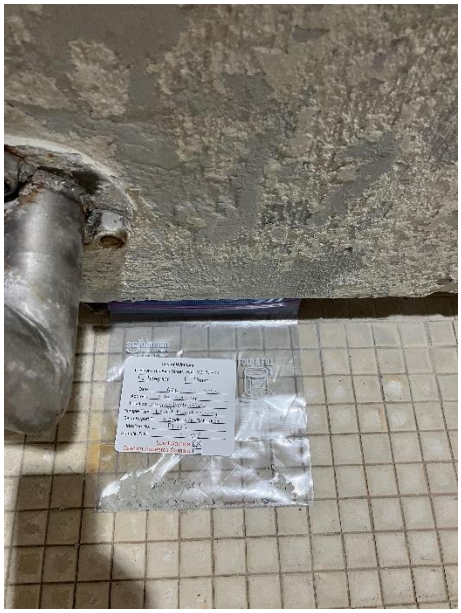


Photograph 9: Sample Group A-09 – Example of Black Mastic on Basement Tunnel Wall, Asbestos Not Detected

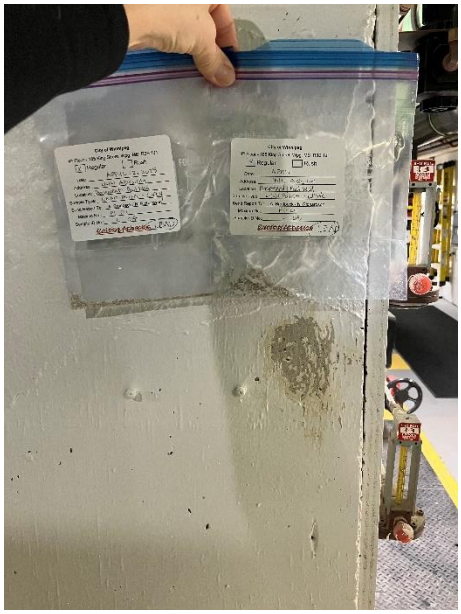


Photograph 10: Example of Red Fire Stopping at Pipe Penetrations, Presumed to Contain Asbestos

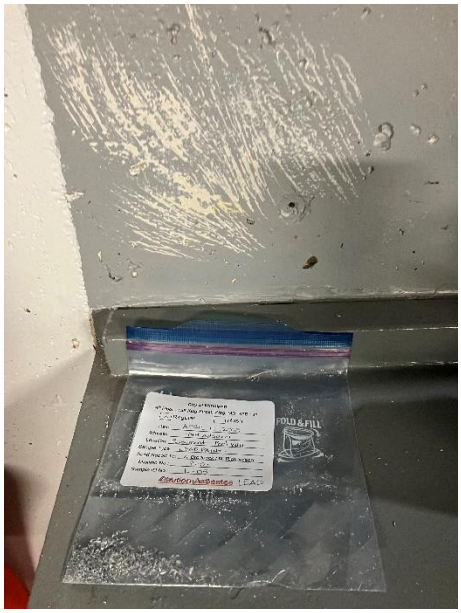
Photograph 11: Sample L-01 – Yellow Paint on Concrete Base, Not Considered Lead Containing



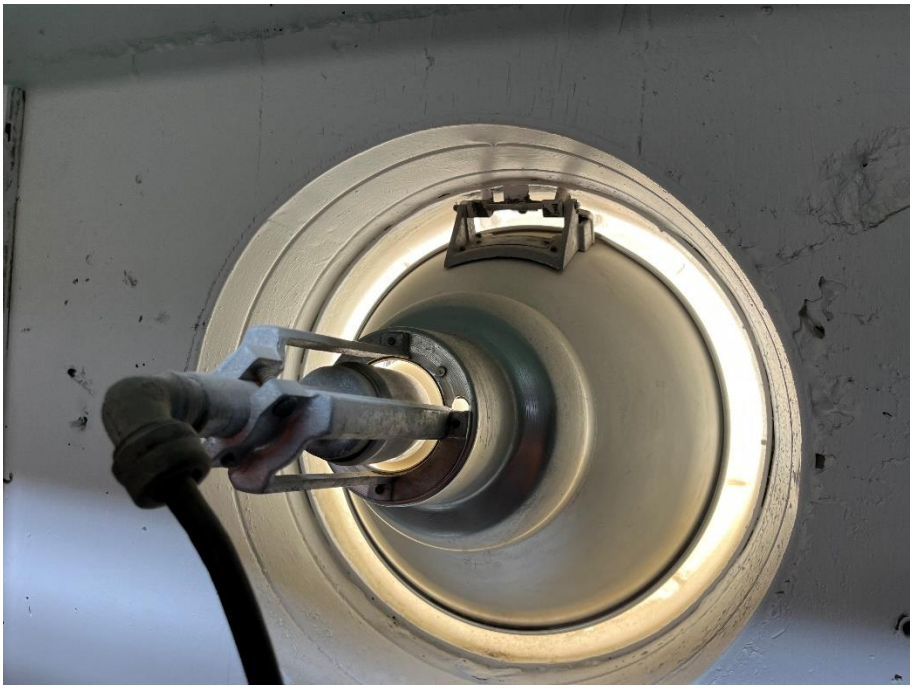
Photograph 12: Sample L-02 – Grey Paint on Concrete Base, Not Considered Lead Containing



Photograph 13: Samples L-03 and L-04 – White and Grey Paint on Wood, Not Considered Lead Containing



Photograph 14: Sample L-05 –Grey Paint on Concrete, Not Considered Lead Containing



Photograph 15: Light Fixture in Pool with Suspect Mercury-Containing Bulb

wsp.com