



**White Buffalo Youth Lodge
602 – 20th Street West, Saskatoon, Sk.**



**Asbestos Survey Report
October 2016**

**Prepared For: City of Saskatoon Infrastructure Services – Facility Planning
3130 Laurier Drive, Saskatoon, SK.
Attn: Perry Friesen**

**Prepared By: Bersch & Associates Ltd.
Project No: B67SRJ21F**

1.0 EXECUTIVE SUMMARY

The survey of the White Buffalo Youth Lodge located at 602 – 20th Street West in Saskatoon, Saskatchewan entailed the inspection of all accessible suspect Asbestos Containing Material (ACM) located throughout the facility. Materials inspected included mechanical insulating material, attic insulation, duct mastic, cinder block insulation, ceiling tile, drywall mud compound, vinyl floor covering, acoustical panel, roofing material, ceiling and column texture and stucco/plaster.

Bulk sample analysis results did not detect Asbestos Containing Materials within the White Buffalo Youth Lodge located in Saskatoon, SK. Refer to **Appendix I** for bulk sample analysis results.

- **Vermiculite (Block Wall Insulation)** was not observed during the survey.

NOTE: *All areas, which are inaccessible at this time, shall be considered to contain asbestos material until bulk sampling determines otherwise. Prior to any renovation/demolition activity, a destructive investigation is recommended to identify any inaccessible or concealed ACM. Materials such as the following, may require more extensive destructive testing to determine the presence/absence of Asbestos:*

- **Block Wall Insulation (Vermiculite)** – Potential locations for this type of insulation are within Attics, Walls and Block Wall Cavities.
- **Drywall Mud Compound** - At joints and nail/screw holes on drywall.
- **Vinyl Floor Covering** – May be concealed below existing floor coverings.
- **Pipefitting Mud Compound** – Potential locations are on elbows, T's, hangers, and valves on mechanical piping in concealed areas.

2.0 INTRODUCTION

Bersch & Associates Ltd. was retained by the City of Saskatoon to conduct an Asbestos Survey and Hazard Assessment of the White Buffalo Youth Lodge, located at 602 – 20th Street West in Saskatoon, Saskatchewan. The survey entailed the inspection of all accessible areas of the facility; including ceiling spaces, crawl spaces, pipe chases, and attics, etc. The purpose of the survey was to locate, identify and assess the condition of all accessible Asbestos Containing Materials (ACM) located throughout the facility. This report gives a detailed account of the inspection results and our firm's recommendations on control options to be implemented to bring the facility into compliance with the Province of Saskatchewan Occupational Health and Safety Act and Regulations. A review of this report shall be conducted with all trades that are entering the facility to perform maintenance or renovation activity. This will ensure they are familiar with the types and locations of asbestos-containing materials present and prevent any uncontrolled disturbance and/or possible exposure to asbestos.

3.0 METHODOLOGY

Bersch & Associates Ltd. performed the survey of the White Buffalo Youth Lodge in Saskatoon, SK. in October & November of 2016. The primary documents for guidance and criteria in this survey were the Province of Saskatchewan “Occupational Health and Safety Act and Regulations, 1996”, Province of Saskatchewan “Managing Asbestos”, and the U.S. Environmental Protection Agency “Guidance for Controlling Asbestos-Containing Materials in Buildings”. The USEPA document identifies factors associated with the “condition” and the “potential for disturbance or erosion” of asbestos-containing materials (ACM). These factors help to determine the potential for exposure to ACM and were used to make a qualitative evaluation of the material. It should be noted that the recommendation of “Management” Asbestos Abatement Action is based on the premise that renovations are not scheduled in that area that will require disturbing or violate the asbestos containing material. In the event that renovations are scheduled that impact upon the areas of asbestos containing material then pre-removal of the asbestos containing materials may be necessary.

In total, thirty-three (33) bulk samples of suspect asbestos-containing materials were collected throughout the facility. No asbestos was identified within the thirty-three (33) samples collected. Refer to **Appendix I** for a copy of the **Bulk Sample Analysis Report**. All bulk samples collected were analyzed by Bersch & Associates Ltd. laboratory in accordance with the current USEPA 600/R-93/116 Method for the analysis of asbestos in building materials using polarized light microscopy and dispersion staining techniques. The detection limit of this method is listed as <1% by volume.

4.0 RECOMMENDATIONS:

Since no accessible ACM was identified throughout the White Buffalo Youth Lodge, no further action is required. We reiterate that any future demolition activity may warrant a destructive investigation into inaccessible concealed areas such as wall cavities, ceiling spaces, and floor cavities to ensure no suspect ACM is present. Any suspect materials encountered as a result of demolition activity should result in a work stoppage and have the material tested to determine presence/absence of ACM.

5.0 ASBESTOS ABATEMENT DISCUSSION

Asbestos is a known carcinogen and is listed in the Province of Saskatchewan under the Occupational Health and Safety Regulations Appendix, Table 20 as a Designated Hazardous Chemical Substance and any release of asbestos fibres into the atmosphere create a potential health hazard. Although the mechanism and epidemiology of asbestos carcinogenesis is not yet well defined, accumulating evidence suggests the significance of exposure at even very low fibre concentrations and hence human exposure should be kept to a minimum. It should be noted however that asbestos is a natural mineral and a measurable background concentration can be detected in any location sampled (inside buildings, outside buildings, urban, rural, etc.). The recommendations of the report are therefore intended to keep the potential exposure to an absolute minimum with the knowledge that a zero exposure is not possible.

Asbestos containing materials have been used in a wide variety of applications. Of particular concern, is the group of so-called friable products. A friable product is one that can be crumbled or reduced to powder or smaller fragments by hand pressure. Publications from the U.S.E.P.A. as early as 1977 have indicated the potential hazard of asbestos exposure in buildings containing these friable products. The two main uses of friable asbestos products are as spray insulation (thermal, acoustic or fireproofing) on deck and/or beams or as thermal insulation on piping or mechanical equipment. A large amount of non-friable asbestos-containing materials has also been used in building construction such as asbestos cement board and asbestos containing vinyl flooring.

The mere presence of a friable asbestos-containing material does not imply that there is an actual presence of elevated airborne fibre. As numerous studies have indicated, elevated asbestos fibre levels are generally found when settled dust or the actual asbestos containing material itself is disturbed by maintenance, renovation, inadvertent contact or vibration. The factors considered in the Environmental Protection Agency (USEPA) exposure assessment (condition of material, water damage, activity, movement, exposed surface area, accessibility, friability and presence in an air stream) often give some indication of the likelihood of fibre release but are not in any way definitive in determining whether a hazard exists or not. That is, even if the most friable product exists in a building, elevated fibre levels will not likely occur unless there is some disturbance by physical contact, vibration or an air stream.

There are four possible approaches to control exposure to airborne asbestos once a friable material is identified in a building. These methods briefly are as follows:

- A) **Removal** - Asbestos material is removed and disposed of by burial and replaced by non-asbestos materials.
- B) **Encapsulation** - Asbestos material is coated with a bridging or penetrating sealant.
- C) **Enclosure** - Asbestos containing materials are separated from the building environment by barriers such as suspended ceilings or cladding materials.
- D) **Deferred Action or Management and Custodial Control** - The Province of Saskatchewan Human Resources, Labor and Employment Branch under the Occupational health and Safety Regulations publish a document outlining “The Management of Asbestos”. In the guide for compliance, an action plan is outlined for management of the asbestos materials identified and in summary is:
 1. Identification, which has been accomplished by this report.
 2. Development of Written Handling Procedures for maintenance personnel or often arrangements are made for a qualified contractor to conduct the necessary removal or spot maintenance prior to the regular staff conducting maintenance.
 3. Asbestos Abatement Awareness and Process Training if the regular maintenance personnel are required to conduct asbestos-related activities.

4. Inspection on regular basis is conducted to determine the ongoing condition of the material. Sask. Occupational Health & Safety Regulations require an “annual” inspection of all “friable” asbestos materials by a competent person.

In the event renovations or maintenance is performed within areas containing asbestos materials, written procedures must be developed to conduct the activity or prior removal if the situation warrants.

6.0 REFERENCES

- .1 Province of Saskatchewan “The Occupational Health and Safety Act and The Occupational Health and Safety Regulations” Office Consolidation, May 1996.
- .2 Province of Saskatchewan Human Resources, Labor, and Employment “The Management of Asbestos” January 1991.
- .3 USEPA, 1985. U.S. Environmental Protection Agency, "Guidance for Controlling Asbestos-Containing Materials in Buildings". Washington, DC: Office of Toxic Substances, USEPA.
- .4 Midwest Centre for Occupational Health & Safety St. Paul’s, Minnesota – Asbestos Training For Inspectors & Management Planners
- .5 McCrone Research Institute Course Hayward California “Asbestos Identification”
- .6 Environment Management and Protection Act, Saskatchewan Environment, October 2002
- .7 Hazardous Substances and waste Dangerous Goods Regulations, Saskatchewan Environment, April 1989

APPENDIX I

BULK SAMPLE ANALYSIS REPORT

BERSCH & ASSOCIATES LTD.

November 17th, 2016

City of Saskatoon
Facility Planning
Cosmo Civic Centre
3130 Laurier Drive
Saskatoon, Sk
S7L 5J7

ATTENTION: Perry Friesen

SUBJECT: Bulk Sample Analysis Report – White Buffalo Youth Lodge

Please find attached the laboratory results for the bulk samples collected from the White Buffalo Youth Lodge on October 21st, 24th and November 10th, 2016 located at 602 20th Street West, Saskatoon, SK. The samples were analyzed for the identification of asbestos. Asbestos **was not** detected in the samples.

The results for the samples submitted were obtained by examination in accordance with the current USEPA 600/R-93/116 Method for the analysis of asbestos in building materials using polarized light microscopy and dispersion staining techniques. The detection limit of this method is listed as less than 1% by volume.

This test report relates only to the materials sent for examination and any use or extension of the information by the client of these results is the responsibility of the client.

If any questions arise on the results of the attached information, please contact our office 306.222.7477. Thank you for this opportunity of service!

Sincerely,



Brad Berschiminsky
Bersch & Associates Ltd.

File: B67BLJ21F – White Buffalo Youth Lodge

Bersch & Associates Ltd.

B67BAJ21F

244-2002 Quebec Avenue
Saskatoon, SK S7K 1W4**BULK SAMPLE ANALYSIS REPORT****PROJECT NO: B67.16****CLIENT: CITY OF SASKATOON
FACILITY PLANNING****CONTACT: PERRY FRIESEN****LOCATION: WHITE BUFFALO YOUTH LODGE, 602 20TH STREET WEST, SASKATOON, SK**

NO.	DATE	SAMPLE INFORMATION	ASBESTOS	%	ANALYST
1	21-Oct-16	111 Wood Working - White Insulation In Attic Space Above Suspended Ceiling	No Asbestos Detected		WB
2	21-Oct-16	111 Wood Working - Duct Mastic Along West Wall	No Asbestos Detected		WB
3	21-Oct-16	111, 111(S), 122, 123 - Wall Drywall Mud Compound Compilation	No Asbestos Detected		WB
4	21-Oct-16	111, 112, 123 - Ceiling Drywall Mud Compound Compilation	No Asbestos Detected		WB
5	21-Oct-16	109 - Sheet Flooring Under Carpet Green Swirl	No Asbestos Detected		WB
6	21-Oct-16	109.1 - 2' x 4' Ceiling Tile 2 Pin Hole Pattern	No Asbestos Detected		WB
7	21-Oct-16	112, 121, 104,105, 124 - Wall Drywall Mud Compound Compilation	No Asbestos Detected		WB

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NO.	DATE	SAMPLE INFORMATION	ASBESTOS	%	ANALYST
8	21-Oct-16	112, 121, 124 - Ceiling Drywall Mud Compound Compilation	No Asbestos Detected		WB
9	21-Oct-16	104 - Lineal Pipe Insulation Above Enclosed Ceiling	No Asbestos Detected		WB
10	21-Oct-16	102.1 Gym Storage - Perlite In West Block Wall	No Asbestos Detected		WB
11	21-Oct-16	102 Gymnasium - Woven Sound Board Around Upper Perimeter	No Asbestos Detected		WB
12	21-Oct-16	102 Gymnasium - Blue Flooring	No Asbestos Detected		WB
13	21-Oct-16	104, 105 - Sheet Flooring Beige/Brown/White Swirl Pattern	No Asbestos Detected		WB
14	24-Oct-16	200 - Lineal Pipe Insulation	No Asbestos Detected		WB

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NO.	DATE	SAMPLE INFORMATION	ASBESTOS	%	ANALYST
15	24-Oct-16	200/201 - Drywall Mud Compound	No Asbestos Detected		WB
16	24-Oct-16	Roof - Roof Material Sample	No Asbestos Detected		WB
17	24-Oct-16	Roof - Tar On Yellow Piping	No Asbestos Detected		WB
18	24-Oct-16	Roof - Duct Mastic/Putty On AHU #1	No Asbestos Detected		WB
19	24-Oct-16	201 - Insulation Behind Drywall	No Asbestos Detected		WB
20	24-Oct-16	106 - Ceiling Drywall Mud Compound Incl. Above Enclosed Ceiling	No Asbestos Detected		WB
21	24-Oct-16	106 - Wall Drywall Mud Compound Underneath Sink	No Asbestos Detected		WB

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NO.	DATE	SAMPLE INFORMATION	ASBESTOS	%	ANALYST
22	24-Oct-16	106 - White Stone Pattern Sheet Flooring	No Asbestos Detected		WB
23	24-Oct-16	114/125/113.4 - Drywall Mud Compound Compilation	No Asbestos Detected		WB
24	10-Nov-16	Basement Area, Hockey Area, Furnace Room - Drywall Mud Compound Compilation	No Asbestos Detected		WB
25	10-Nov-16	Basement Area - Lineal Pipe Insulation	No Asbestos Detected		WB
26	10-Nov-16	Basement Furnace Room - Beige Duct Mastic	No Asbestos Detected		WB
27	10-Nov-16	Basement Furnace Room - Red Duct Mastic	No Asbestos Detected		WB
28	10-Nov-16	Basement Hockey Room Area - Texture On Ceiling and Columns	No Asbestos Detected		WB

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NO.	DATE	SAMPLE INFORMATION	ASBESTOS	%	ANALYST
29	10-Nov-16	Exterior Canopy - South Side - Roof Material	No Asbestos Detected		WB
30	10-Nov-16	Front Area - Drywall Mud Compound	No Asbestos Detected		WB
31	10-Nov-16	Exterior North Wall (Alley Side) - Wall Material	No Asbestos Detected		WB
32a	10-Nov-16	Exterior South Canopy Above Main Entrance - Stucco #1	No Asbestos Detected		WB
32b	10-Nov-16	Exterior South Canopy Above Main Entrance - Stucco #2	No Asbestos Detected		WB