REPORT
TO
THE HALTON DISTRICT SCHOOL BOARD

SURVEY AND ASSESSMENT OF
ASBESTOS-CONTAINING MATERIALS
JOSEPH GIBBONS PUBLIC SCHOOL
GEORGETOWN, ONTARIO

Prepared by:

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30 August 2013

Halton District School Board
J. W. Singleton Education Centre
2050 Guelph Line, P.O. Box 2005
Burlington, Ontario
L7R 3Z2

Attention: Mr. Terry De Medeiros
Regional Supervisor, Facilities Maintenance

Re: **Revised Survey of Asbestos-containing Materials**
Joseph Gibbons Public School
Georgetown, Ontario

Dear Mr. De Medeiros:

We are pleased to submit our revised report on the survey of asbestos-containing materials. This report has been updated to include information regarding the friability of asbestos-containing materials on the floor plan(s).

We trust that the enclosed is suitable for your current purposes. Please call if you have any questions.

Yours very truly,

DECOMMISSIONING CONSULTING SERVICES

Rein Andre, B.A.
Manager, Hazardous Materials Group

Enc.

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AT REAR OF REPORT

1.0 INTRODUCTION

Decommissioning Consulting Services Limited (DCS) was retained by The Halton District School Board (the Board) to prepare an updated survey of the locations of asbestos-containing materials at Joseph Gibbons Public School, 49 Moore Park Crescent, Georgetown, Ontario, following asbestos abatement operations related to a kindergarten renovation project performed in March through May 2012.

Asbestos has been widely used in buildings, both in friable applications (materials which can be easily crumbled such as pipe and tank insulation, sprayed-on fireproofing and acoustic and texture coat applications) and in non-friable materials such as floor tile, fire-rated ceiling tile, gaskets, cement board, cement pipe, drywall joint compound and so on. Plaster applications (walls, ceilings, bulkheads, etc.) may also contain asbestos. The use of asbestos in friable applications was curtailed in Ontario around the mid-1970s. Most buildings constructed prior to about the mid-1970s contain some form of friable asbestos-containing material. The use of asbestos in certain non-friable products continued beyond the 1970s. A sample list of suspect asbestos-containing building materials is provided in Appendix C.

Control of exposure to asbestos is governed in Ontario by Regulation 278/05 - *Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations.* Disposal of asbestos waste (friable and non-friable materials) is governed by Ontario Regulation 278/05 and by Ontario Regulation 347, Waste Management - General.

The major requirements of O.Reg. 278/05 with respect to asbestos surveys and assessments are as follows:

Survey Records:

- non-friable asbestos-containing materials (e.g., vinyl floor tiles, ceiling tiles, drywall joint compound, plaster, etc.) are to be included in asbestos survey records effective 1 November 2007;

- asbestos survey records are to be updated:

  (a) at least once in every 12-month period;

(b) whenever the owner becomes aware of new information; and

- asbestos-containing materials are to be inspected at reasonable intervals in order to determine their condition.

Bulk Samples:

- the minimum number of bulk samples to be collected from an area of homogeneous material is set out in Table 1 of the regulation (Table 1 is reproduced below).

- if analysis establishes that a bulk material sample contains 0.5 per cent or more asbestos by dry weight:

(a) it is not necessary to analyze other bulk material samples taken from the same area of homogeneous material; and

(b) the entire area of homogeneous material from which the bulk materials sample was taken is deemed to be asbestos-containing material.

TABLE 1.1

BULK MATERIAL SAMPLES
(FROM O.REG. 278/05)

ITEM	TYPE OF MATERIAL	SIZE OF AREA OF HOMOGENEOUS MATERIAL	MINIMUM NUMBER OF BULK MATERIAL SAMPLES TO BE COLLECTED
1.	Surfacing material, including without limitation material that is applied to surfaces by spraying, by trowelling or otherwise, such as acoustical plaster on ceilings and fireproofing materials on structural members	Less than 90 square metres	3
		90 or more square metres, but less than 450 square metres	5
		450 or more square metres	7
2.	Thermal insulation, except as described in Item 3	Any size	3
3.	Thermal insulation patch	Less than 2 linear metres or 0.5 square metres	1
4.	Other material	Any size	3

In practice, application of the Table 1 requirements means that the specified minimum number of negative (i.e., less than 0.5% asbestos) bulk sample analysis results will be required in order to classify a material as non-asbestos.

Section 10 of O.Reg. 278/05 – *Owner's Responsibility before requesting tender or arranging work* – requires that an owner shall have an investigation carried out in order to determine if materials, that are likely to be handled, dealt with, disturbed or removed during the alteration of a building, are asbestos-containing and, if so, whether the asbestos-containing material is friable or non-friable and to identify the type of asbestos in the material. Section 10 also requires that the owner shall have a report prepared detailing the investigation findings which is to be provided to any prospective constructor.

Corrective Actions

If asbestos-containing vermiculite or thermal insulation has fallen and is being disturbed so that exposure to the material is likely to occur, O.Reg. 278/05 requires that the owner shall cause the fallen material to be cleaned up and, if it is readily apparent that material will continue to fall because of the deterioration, the owner shall repair, seal, remove or permanently enclose the material.

O.Reg. 278/05 classifies the asbestos work operations into three types (Type 1, 2 and 3) and specifies procedures to be followed in conducting asbestos abatement work.

2.0 METHODOLOGY

2.1 SURVEY

Site inspections were carried out by DCS staff in February to May 2012 to determine the locations of building construction materials suspected of containing asbestos. DCS reviewed information outlined in previous reports prepared by DCS for the Board entitled *Survey and Assessment of Asbestos-Containing Materials, J. Gibbons Public School, Georgetown, Ontario* and *Designated Substances and Hazardous Materials Survey, Joseph Gibbons Public School, 41 Moore Park Crescent, Georgetown, Ontario* dated March 2000 and February 2012, respectively, to prepare this updated report. All readily accessible areas, including spaces above accessible suspended ceilings, were inspected throughout the facility.

Representative bulk samples of material from different ages of construction were collected by DCS staff during the course of the site inspections and were forwarded to EMSL Canada Inc. (EMSL) for analysis of asbestos content. EMSL holds a current Certificate of Accreditation for Bulk Asbestos Fibre Analysis under the Voluntary Accreditation Program (NVLAP). Determination of the locations of asbestos-containing materials were made based on results of bulk sample analysis, and on visual observations and physical characteristics of the applications at each inspection location.

2.2 ASSESSMENT

During the survey, the condition of all friable materials is assessed. Assessment involves the evaluation of a number of factors, including:

- asbestos content;
- physical damage;
- water damage;
- accessibility;
- adjacent activity, vibrations;
- air distribution system (air plenum); and
- friability.

Recommendations for appropriate corrective measures are based on findings of the assessment and consist primarily of either repair or removal (and replacement) of the asbestos-containing materials. Recommended corrective actions have been submitted under separate cover.

3.0 SURVEY RESULTS

On the basis of the survey work carried out, we report friable asbestos-containing materials are present in Gladys Speers Public School in the following accessible applications.

- Thermal insulation on pipe fittings above and below ceilings throughout the building;
- Firestop around pipe penetrations in walls in Room 16;
- Thermal insulation on the water meter in Room 2; and
- Vermiculite insulation ("block-fill") confirmed to be present inside block wall cavities in exterior block walls in Room 24, 26 and 27 and assumed to be present inside concrete block wall cavities in all exterior block walls throughout the building. Asbestos vermiculite may be present inside concrete block wall cavities in interior concrete block walls. Destructive investigation would be required to determine if asbestos vermiculite is present in interior concrete block walls.

Asbestos-containing thermal insulation applied to pipe fittings, water meter and used as firestop material is a grey-coloured cementitious-like material.

Asbestos-containing "block-fill" insulation inside concrete block wall cavities is a shiny black/grey/silver coloured granular-like material.

All thermal insulation, with the exception of glass fibre material, should be assumed to contain asbestos unless a bulk sample analysis indicates otherwise.

Visual inspections and laboratory analyses of representative bulk samples of materials confirm that non-friable asbestos-containing materials are present in the following accessible applications:

- 12" x 12" vinyl floor tiles throughout the building;
- Joint compounds on drywall applications throughout the building;

- Caulking on select interior and exterior door frames in Room 100B;
- Assumed asbestos-containing cement board on exterior soffits in Exits 17B, 18A and 31A.

The locations of accessible asbestos-containing materials are shown on the floor plans provided in Appendix A and identified in the room-by-room summary forms provided in Appendix B. Glass fibre thermal insulation on mechanical systems is not identified.

A summary of the results of laboratory analysis of bulk samples is presented in Table 3.1. The laboratory reports are provided in Appendix C.

TABLE 3.1

SUMMARY OF LABORATORY ANALYSES OF BULK SAMPLES
JOSEPH GIBBONS PUBLIC SCHOOL

SAMPLE Nº	LOCATION	DESCRIPTION	ASBESTOS CONTENT
1A-JC-24	Room 24 (101, 104)	Drywall joint compound	None detected [1]
1B-JC-26	Room 26 (106)	Drywall joint compound	None detected [1]
1C-JC-28	Room 28	Drywall joint compound	None detected [1]
1D-JC-30	Room 30	Drywall joint compound	**1.1% chrysotile** [1]
2A-VFT-24	Room 24 (101, 104)	12" vinyl floor tile, beige w/ brown streaks	None detected (PLM) <0.25% chrysotile[1] [3] (TEM)
2B-VFT-24	Room 24 (101, 104)	12" vinyl floor tile, beige w/ brown streaks	None detected [1]
2C-VFT-24	Room 24 (101, 104)	12" vinyl floor tile, beige w/ brown streaks	None detected [1]
2A-MS-24	Room 24 (101, 104)	Mastic below vinyl floor tile, beige w/ brown streaks	None detected (PLM) [1] None detected (TEM)
2B-MS-24	Room 24 (101, 104)	Mastic below vinyl floor tile, beige w/ brown streaks	None detected [1]
2C-MS-24	Room 24 (101, 104)	Mastic below vinyl floor tile, beige w/ brown streaks	None detected [1]
3A-CK-24	Room 24 (100)	Door caulking, interior, brown, soft	**4.2% chrysotile (PLM)** [1] **2.1% chrysotile (TEM)**
4A-VFT-24	Room 24 (101, 104)	12" vinyl floor tile, white w/ brown spots	None detected (PLM) [1] None detected (TEM)
4B-VFT-24	Room 24 (101, 104)	12" vinyl floor tile, white w/ brown spots	None detected [1]
4C-VFT-24	Room 24 (101, 104)	12" vinyl floor tile, white w/ brown spots	None detected [1]
4A-MS-24	Room 24 (101, 104)	Mastic below vinyl floor tile, white w/ brown spots	None detected (TEM) [1]
4B-MS-24	Room 24 (101, 104)	Mastic below vinyl floor tile, white w/ brown spots	None detected [1]
4C-MS-24	Room 24 (101, 104)	Mastic below vinyl floor tile, white w/ brown spots	None Detected [1]
5A-CK-25	Room 25 (100B)	Door caulking, exterior, grey, soft	**2.3% chrysotile** [1]
6A-CK-24	Room 24 (101, 104)	Masonry wall joint caulking, white, soft	None detected (PLM) [1] None detected (TEM)

SAMPLE Nº	LOCATION	DESCRIPTION	ASBESTOS CONTENT
6B-CK-24	Room 24 (101, 104)	Masonry wall joint caulking, white, soft	None detected (1)
6C-CK-24	Room 24 (101, 104)	Masonry wall joint caulking, white, soft	None detected (1)
8A-CK-26	Room 26 (106)	Caulking on exterior louvre	None detected (PLM) (1) None detected (TEM)
8B-CK-26	Room 26 (106)	Caulking on exterior louvre	None detected (1)
8C-CK-26	Room 26 (106)	Caulking on exterior louvre	None detected (1)
7A-VFT-23A	Room 23A	12" vinyl floor tile – green with white streaks	**5.4% chrysotile** (2)
9A-PG-16	Room 16	Firestop – white cementitious	**2.6% chrysotile** (2)
10A-VFT-9	Room 9	12" vinyl floor tile – brown with white streaks	**4.5% chrysotile** (2)
11A-VFT-9	Room 9	12" vinyl floor tile – tan with brown light streaks	**3.3% chrysotile** (2)
12A-VFT-9	Room 9	Black accent vinyl floor tile strips	**10.8% chrysotile** (TEM) (2)
13A-VFT-3	Room 3	12" vinyl floor tile – peach with peach specks	None Detected (TEM) (2)
13B-VFT-3	Room 3	12" vinyl floor tile – peach with peach specks	None Detected (2)
13C-VFT-3	Room 3	12" vinyl floor tile – peach with peach specks	None Detected (2)
V-1A	Room 24 (106)	Vermiculite insulation inside concrete block wall cavities	**Actinolite** (2)
JGPS#1	Room 2	Mechanical room – dom. Cold water meter insulation	**15% chrysotile** (4)
JGPS#2	Room 2	Mechanical room – dom. c.w.m. fitting insulation	**17% chrysotile** (4)
JGPS#3	Room 2	Mechanical room – h.w. fitting insulation	**33% chrysotile** (4)
JGPS#4	Room 2	Mechanical room – hwh return pipe fitting insulation	**20% chrysotile** (4)
JGPS#5	Room 2	Mechanical room – hwh return pipe fitting insulation	**57% chrysotile** (4)

NOTES:

(1) Bulk sample results derived from a report prepared by DCS for the HDSB entitled *Designated Substances and Hazardous Materials Survey, Joseph Gibbons Public School, 41 Moore Park Crescent, Georgetown, Ontario* dated February 2012.

(2) Bulk samples collected by DCS in February and April 2012

(3) "Asbestos-containing material" is defined as material that contains 0.5% or more asbestos by dry weight.

(4) Bulk sample results and descriptions derived from a report prepared by DCS for the HDSB entitled *Survey and Assessment of Asbestos-Containing Materials, J. Gibbons Public School, Georgetown, Ontario* dated March 2000.

< = Less than.

Chrysotile = Chrysotile asbestos.
Actinolite = Actinolite asbestos.

TABLE 3.2

SUMMARY OF ASBESTOS–CONTAINING MATERIALS
GLADYS SPEERS PUBLIC SCHOOL

LEVEL	ROOM	MATERIAL	ASBESTOS CONTENT	LOCATION WITHIN SPACE	ESTIMATED QUANTITY	FRIABLE OR NON-FRIABLE	CONDITION	COMMENTS
1	1	Vermiculite	Actinolite	Inside concrete block wall cavities – east wall	10-50 m^2	Friable	-	
1	2	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	>20 pipe fittings	Friable	G	
		Thermal insulation	15% chrysotile	Surface of glass fibre insulation associated with water meter	>1 m^2	Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – east wall	10-50 m^2	Friable	-	
1	3	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	10-20 pipe fittings	Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – south and east walls	10-50 m^2	Friable	-	
1	4	Thermal insulation on pipe fittings	15% - 57% chrysotile	Above and below ceiling	10-20 pipe fittings	Friable	G	
		12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	10-50 m^2	Non-Friable	G	
		Drywall joint compound	1.1% chrysotile	Ceiling	10-50 m^2	Non-Friable	G	
1	5	Thermal insulation on pipe fittings	15% - 57% chrysotile	Above and below ceiling	10-20 pipe fittings	Friable	G	
		12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	10-50 m^2	Non-Friable	G	
		Drywall joint compound	1.1% chrysotile	Ceiling	10-50 m^2	Non-Friable	G	

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	6	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	10-20 pipe fittings	Friable	G	
		12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	
1	7	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	10-20 pipe fittings	Friable	G	
		12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	
1	8	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	10-20 pipe fittings	Friable	G	
		12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	
1	9	12" x 12" vinyl floor tiles	3.3%-10.8% chrysotile	Floor	>100 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities	>100 m^2	Friable	-	
1	10	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	>20 pipe fittings	Friable	G	
		12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	10-50 m^2	Non-Friable	G	
1	11	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	<5 pipe fittings	Friable	G	
		12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	10-50 m^2	Non-Friable	G	

LEVEL	ROOM	MATERIAL	ASBESTOS CONTENT	LOCATION WITHIN SPACE	ESTIMATED QUANTITY	FRIABLE OR NON-FRIABLE	CONDITION	COMMENTS
1	12	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	5-10 pipe fittings	Friable	G	
		12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	10-50 m^2	Non-Friable	G	
1	13	Drywall joint compound	1.1% chrysotile	Ceiling	10-50 m^2	Non-Friable	G	
1	14	Drywall joint compound	1.1% chrysotile	Ceiling	10-50 m^2	Non-Friable	G	
1	15	12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	10-50 m^2	Non-Friable	G	
		Drywall joint compound	1.1% chrysotile	Walls and ceiling	10-50 m^2	Non-Friable	G	
1	15A	12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	<10 m^2	Non-Friable	G	
		Drywall joint compound	1.1% chrysotile	Walls and ceiling	10-50 m^2	Non-Friable	G	
1	16	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	<5 pipe fittings	Friable	G	
		Firestop material	2.6% chrysotile	Around pipe penetrations in walls	< 1 m^2	Friable	G	
		12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	<10 m^2	Non-Friable	G	
1	17	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	>20 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Select walls at Rooms 19 and 20	10-50 m^2	Non-Friable	G	
1	17A	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	<5 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Bulkhead at front doors and wall at Room 20	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	
	17B	Cement board	Assumed asbestos	Exterior soffit	5-10 m^2	Non-Friable	G	

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	18	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	<5 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Bulkhead above door to exterior	3-5 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities	10-50 m^2	Friable	-	
1	18A	Cement board	Assumed asbestos	Exterior soffit	5-10 m^2	Non-Friable	G	
1	19	Drywall joint compound	1.1% chrysotile	Walls and ceiling	50-100 m^2	Non-Friable	G	
1	20	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	>20 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Walls	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	
1	21	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	<5 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Walls	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	
1	22	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	<5 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Walls	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	
1	23	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	10-20 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Walls	10-50 m^2	Non-Friable	G	

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	23A	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	>20 pipe fittings	Friable	G	
		12" x 12" vinyl floor tiles	5.4% chrysotile	Floor	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	
1	28	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	>20 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Walls	10-50 m^2	Non-Friable	G	
1	29	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	5-10 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Bulkhead above door to exterior	3-5 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	3-5 m^2	Friable	-	
1	30	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	>20 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Columns, above doors, above windows, north wall west of Room 30A and walls at Room 30A	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – south, east and west walls	50-100 m^2	Friable	-	
1	30A	Drywall joint compound	1.1% chrysotile	Walls and ceiling	10-50 m^2	Non-Friable	G	
1	31	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	<5 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Bulkhead above door to exterior	3-5 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities	10-50 m^2	Friable	-	

LEVEL	ROOM	MATERIAL	ASBESTOS CONTENT	LOCATION WITHIN SPACE	ESTIMATED QUANTITY	FRIABLE OR NON-FRIABLE	CONDITION	COMMENTS
1	31A	Cement board	Assumed asbestos	Exterior soffit	5-10 m^2	Non-Friable	G	
1	32	Thermal insulation on pipe fittings	15% - 57% chrysotile	Below ceiling	>20 pipe fittings	Friable	G	
		Drywall joint compound	1.1% chrysotile	Columns, above doors and above windows	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – south, east and west walls	50-100 m^2	Friable	-	
1	100	Caulking	4.2% chrysotile	Door frame to Vestibule 100B	3-5 m	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	
1	100A	Drywall joint compound	1.1% chrysotile	Walls and ceiling	10-50 m^2	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	5-10 m^2	Friable	-	
1	100B	Caulking	2.3% - 4.2% chrysotile	Interior and exterior door frames	5-10 m	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	
1	101	Drywall joint compound	1.1% chrysotile	Column and south and east walls	10-50 m^2	Non-Friable	G	Drywall partition walls between Rooms 101 and 104 and Vestibule 100B installed in 2012
1	102	Drywall joint compound	1.1% chrysotile	North and west walls and column in centre of south wall	<1 m^2	Non-Friable	G	South partition wall installed in 2012
1	103	Drywall joint compound	1.1% chrysotile	Column in north west corner	<3 m^2	Non-Friable	G	All partition walls, ceiling and interior finishes installed in 2012

LEVEL	ROOM	MATERIAL	ASBESTOS CONTENT	LOCATION WITHIN SPACE	ESTIMATED QUANTITY	FRIABLE OR NON-FRIABLE	CONDITION	COMMENTS
1	104	Drywall joint compound	1.1% chrysotile	Column and south wall	10-50 m^2	Non-Friable	G	Drywall partition walls between Room104 and 101, Room 104 and 105 and 106 and Room 104 and Vestibule 100B installed in 2012
		Vermiculite	actinolite	Inside concrete block wall cavities – west wall	10-50 m^2	Friable	-	
1	105	Vermiculite	actinolite	Inside concrete block wall cavities – north and west walls	10-50 m^2	Friable	-	All partition walls, ceiling and interior finishes installed in 2012
1	106	Caulking	4.2% chrysotile	Door frame to Vestibule 100B	3-5 m	Non-Friable	G	
		Vermiculite	actinolite	Inside concrete block wall cavities – north wall	10-50 m^2	Friable	-	All partition walls, ceiling and interior finishes installed in 2012

NOTES:

Condition: G = Good.
F = Fair.
P = Poor.

NACMO: No Asbestos-Containing Materials Observed.

NOTE!: Asbestos may also be present in locations that are presently inaccessible (e.g., in pipe chases, behind walls, above suspended gypsum board ceilings and below carpets).

4.0 DISCUSSION

The owner of a building is required to provide information on the locations of asbestos-containing material to:

i) any person who is an "occupier"[1] of the building. The occupier is then responsible for providing the information to their own employees;

ii) any prospective constructors, contractors and subcontractors prior to requesting tenders or arranging for the demolition, alteration or repair of all or part of a building. The information to be provided shall identify whether any material that is likely to be handled, dealt with, disturbed or removed is asbestos-containing material; describe the condition of the material; state whether the material is friable or non-friable; and contain drawings, plans and specifications, as appropriate, to show the locations of material;

iii) any employer with whom the owner arranges or contracts for work not described in ii) above that may involve asbestos-containing material or is to be carried out in close proximity to and may disturb the material;

iv) owner's staff, if they perform work that involves asbestos-containing material or work that is to be carried out in close proximity to and may disturb the material.

If material suspected of containing asbestos which is not identified in the asbestos survey records is discovered during the course of any work in a facility, then either the constructor or the owner is required to immediately notify (orally and in writing):

a) an inspector at the office of the Ministry of Labour nearest the workplace;

b) the owner;

c) the contractor; and

---

(1) An "occupier" is defined as:
(a) a person who is in physical possession of premises, or
(b) a person who has responsibility for and control over the condition of premises or the activities carried on there, or control over persons allowed to enter the premises.

d) the joint health and safety committee or the health and safety representative.

The owner is also responsible for providing tenderers with a list of designated substances (including asbestos) at the tendering stage of a project.

This report was prepared as part of the asbestos management program, not for the purposes of construction or renovation projects. Additional investigation and testing may be required prior to construction or renovation projects.

Bulk sampling of building materials was carried out in accordance with the minimum sampling requirements specified in Table 1 of O.Reg. 278/05. We recommend that additional samples of certain types of material which may have been mixed on site at the time of construction (plaster, drywall joint compound, ceiling texture coat, etc.) be tested for asbestos content prior to the disturbance of these materials at the time of renovations, alterations or demolition work.

Asbestos may also be present in materials which were not sampled during the course of the asbestos survey carried out by DCS, including, but not limited to, roofing materials, fire doors, mastics or cementitious leveling compound under select vinyl flooring, grout, select caulking, gaskets in piping, internal components of boilers, paints and coatings, components of electrical equipment, (e.g. – electrical wiring insulation, non-metallic sheathed cable, electrical panel partitions, arc chutes, high-grade electrical paper, etc.), concrete, etc., and/or in locations that are presently inaccessible (e.g., in pipe chases, behind walls, above suspended gypsum board or plaster ceilings, and below carpets). Asbestos vermiculite may be present inside concrete block wall cavities in interior concrete block walls. Destructive investigation would be required to determine if asbestos vermiculite is present in interior concrete block walls. Confirmatory testing of any such materials could be undertaken as the need arises (i.e., at the time of renovations, modifications or demolition) or the materials can be assumed to contain asbestos based on findings in adjacent areas.

As noted above, if any materials which may contain asbestos and which were not tested during the course of the asbestos survey are discovered during any construction activities, the work shall not proceed until such time as the required notifications have been made and an appropriate course of action is determined.

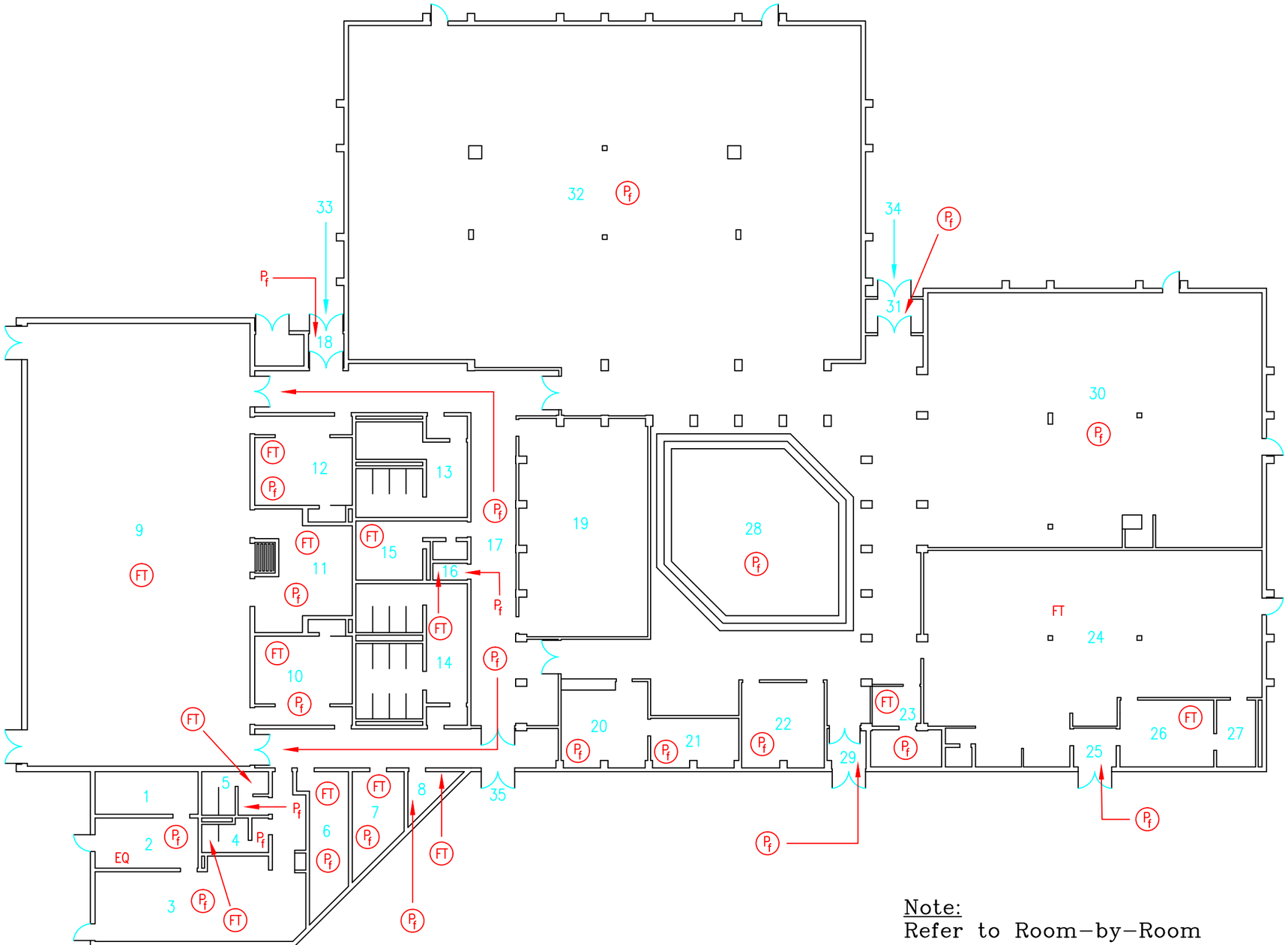
5.0 USE AND LIMITATIONS OF THIS REPORT

This report, prepared for the Halton District School Board, does not provide certification or warranty, expressed or implied, that the investigation conducted by DCS identified all asbestos-containing materials present in the subject facilities. The work undertaken by DCS was directed to provide information on the presence of asbestos-containing building materials based on visual inspection of readily accessible areas of the building and on the results of laboratory analysis of bulk samples of material gathered in the course of the visual inspection. The survey did not include for identification of asbestos in process materials, equipment (including electrical equipment and wiring), furniture (e.g., chairs, table tops, chalkboards, etc.), nor material outside of the building (e.g. asphaltic pavement).

This report was prepared by DCS for the Halton District School Board. Any use which a third party makes of the report, or reliance on, or decisions to be based on it, is the responsibility of such third parties.

APPENDIX A

FLOOR PLANS



Note:
Refer to Room-by-Room Data Sheets for specific locations of asbestos cement products.

LEGEND:

30	FUNCTIONAL SPACE
◯	THROUGHOUT FUNCTIONAL SPACE
*	ABOVE CEILING ASSEMBLY
P_f	ASBESTOS ON PIPE FITTINGS ONLY (FRIABLE)
EQ	ASBESTOS ON MECHANICAL EQUIPMENT (FRIABLE)
FT	SUSPECT ASBESTOS FLOOR TILE (NON-FRIABLE)

NOTES:

1.

REVISIONS:

No.	Date:	By:	Revisions

REFERENCE:

1.

DCS
DECOMMISSIONING CONSULTING SERVICES

HALTON DISTRICT SCHOOL BOARD

JOSEPH GIBBONS PUBLIC SCHOOL

LOCATION OF ASBESTOS CONTAINING MATERIALS

FIRST FLOOR

Drawn By: J.B.S.	Approved By: R.A.	Project No: 701931-000
Date: AUGUST 2013	Scale: N.T.S	Drawing No: 701931-000-1

APPENDIX B

LABORATORY REPORTS

EMSL CANADA INC.

DCS

EMSL Canada Inc.

10 Falconer Drive, Unit #3 Mississauga, ON L5N 3L8
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EMSL Canada Order: 551200511
Customer ID: 55DCSL97
Customer PO: 701477
Project ID:

Attn: Ada Nguyen
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Phone: (905) 882-5984
Fax: (905) 882-8962
Collected:
Received: 2/15/2012
Analyzed: 2/21/2012

Proj: JOSEPH GIBBONS P.S 701477

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 1A-JC-24 ***Lab Sample ID:*** **551200511-0001**
Sample Description: ROOM 24/DRYWALL JOINT COMPOUND

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	White	0.0%	100%	None Detected	

Client Sample ID: 1B-JC-26 ***Lab Sample ID:*** **551200511-0002**
Sample Description: ROOM 26/DRYWALL JOINT COMPOUND

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	White	0.0%	100%	None Detected	

Client Sample ID: 1C-JC-28 ***Lab Sample ID:*** **551200511-0003**
Sample Description: ROOM 28/DRYWALL JOINT COMPOUND

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	White /Various	0.0%	100%	None Detected	

Client Sample ID: 1D-JC-30 ***Lab Sample ID:*** **551200511-0004**
Sample Description: ROOM 30/DRYWALL JOINT COMPOUND

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Tan /Various	0.0%	98.9%	**1.1% Chrysotile**	

Client Sample ID: 1E-JC-13 ***Lab Sample ID:*** **551200511-0005**
Sample Description: ROOM 13/DRYWALL JOINT COMPOUND

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 1F-JC-24 ***Lab Sample ID:*** **551200511-0006**
Sample Description: ROOM 24/DRYWALL JOINT COMPOUND

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 2A-VFT-24 ***Lab Sample ID:*** **551200511-0007**
Sample Description: ROOM 24/12" VINYL FLOOR TILE, BEIGE W/ BROWN STREAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Brown /Beige	0.0%	100%	None Detected	
TEM Grav. Reduction	2/17/2012	Brown /Beige	0.0%	100%	**<0.25% Chrysotile**	

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EMSL Canada Order 551200511
Customer ID: 55DCSL97
Customer PO: 701477
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 2B-VFT-24 ***Lab Sample ID:*** **551200511-0008**
Sample Description: ROOM 24/12" VINYL FLOOR TILE, BEIGE W/ BROWN STREAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Brown /Beige	0.0%	100%	None Detected	

Client Sample ID: 2C-VFT-24 ***Lab Sample ID:*** **551200511-0009**
Sample Description: ROOM 24/12" VINYL FLOOR TILE, BEIGE W/ BROWN STREAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Brown /Beige	0.0%	100%	None Detected	

Client Sample ID: 2A-MS-24 ***Lab Sample ID:*** **551200511-0010**
Sample Description: ROOM 24/MASTIC BELOW 12" VINYL FLOOR TILE, BEIGE W/ BROWN STREAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Black	0.0%	100%	None Detected	
TEM Grav. Reduction	2/17/2012	Black	0.0%	100%	None Detected	

Client Sample ID: 2B-MS-24 ***Lab Sample ID:*** **551200511-0011**
Sample Description: ROOM 24/MASTIC BELOW 12" VINYL FLOOR TILE, BEIGE W/ BROWN STREAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Black	0.0%	100%	None Detected	

Client Sample ID: 2C-MS-24 ***Lab Sample ID:*** **551200511-0012**
Sample Description: ROOM 24/MASTIC BELOW 12" VINYL FLOOR TILE, BEIGE W/ BROWN STREAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Black	0.0%	100%	None Detected	

Client Sample ID: 3A-CK-24 ***Lab Sample ID:*** **551200511-0013**
Sample Description: ROOM 24/DOOR CAULKING, INTERIOR, BROWN, SOFT

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Brown	0.0%	95.8%	**4.2% Chrysotile**	
TEM Grav. Reduction	2/21/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 3B-CK-24 ***Lab Sample ID:*** **551200511-0014**
Sample Description: ROOM 24/DOOR CAULKING, INTERIOR, BROWN, SOFT

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 3C-CK-24 ***Lab Sample ID:*** **551200511-0015**
Sample Description: ROOM 24/DOOR CAULKING, INTERIOR, BROWN, SOFT

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012				Positive Stop (Not Analyzed)	

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EMSL Canada Order 551200511
Customer ID: 55DCSL97
Customer PO: 701477
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 4A-VFT-24 ***Lab Sample ID:*** **551200511-0016**
Sample Description: ROOM 24/12" VINYL FLOOR TILE, WHITE W/ BROWN SPOTS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Brown /White	0.0%	100%	None Detected	
TEM Grav. Reduction	2/17/2012	Brown /White	0.0%	100%	None Detected	

Client Sample ID: 4B-VFT-24 ***Lab Sample ID:*** **551200511-0017**
Sample Description: ROOM 24/12" VINYL FLOOR TILE, WHITE W/ BROWN SPOTS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Brown /White	0.0%	100%	None Detected	

Client Sample ID: 4C-VFT-24 ***Lab Sample ID:*** **551200511-0018**
Sample Description: ROOM 24/12" VINYL FLOOR TILE, WHITE W/ BROWN SPOTS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Brown /White	0.0%	100%	None Detected	

Client Sample ID: 4A-MS-24 ***Lab Sample ID:*** **551200511-0019**
Sample Description: ROOM 24/MASTIC BELOW 12" VINYL FLOOR TILE, WHITE W/ BROWN SPOTS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012				Insufficient Material	
TEM Grav. Reduction	2/17/2012				Insufficient Material	

Client Sample ID: 4B-MS-24 ***Lab Sample ID:*** **551200511-0020**
Sample Description: ROOM 24/MASTIC BELOW 12" VINYL FLOOR TILE, WHITE W/ BROWN SPOTS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Various /Black	0.0%	100%	None Detected	

Client Sample ID: 4C-MS-24 ***Lab Sample ID:*** **551200511-0021**
Sample Description: ROOM 24/MASTIC BELOW 12" VINYL FLOOR TILE, WHITE W/ BROWN SPOTS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Various /Black	0.0%	100%	None Detected	

Client Sample ID: 5A-CK-25 ***Lab Sample ID:*** **551200511-0022**
Sample Description: ROOM 25/DOOR CAULKING, EXTERIOR, GREY, SOFT

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Gray	0.0%	97.7%	**2.3% Chrysotile**	
TEM Grav. Reduction	2/17/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 5B-CK-25 ***Lab Sample ID:*** **551200511-0023**
Sample Description: ROOM 25/DOOR CAULKING, EXTERIOR, GREY, SOFT

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012				Positive Stop (Not Analyzed)	

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Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 5C-CK-25 ***Lab Sample ID:*** **551200511-0024**

Sample Description: ROOM 25/DOOR CAULKING, EXTERIOR, GREY, SOFT

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 6A-CK-24 ***Lab Sample ID:*** **551200511-0025**

Sample Description: ROOM 24/MASONRY WALL JOINT CAULKING, WHITE, SOFT

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	White	0.55%	99.4%	None Detected	
TEM Grav. Reduction	2/17/2012	White	0.0%	100%	None Detected	

Client Sample ID: 6B-CK-24 ***Lab Sample ID:*** **551200511-0026**

Sample Description: ROOM 24/MASONRY WALL JOINT CAULKING, WHITE, SOFT

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	White	0.0%	100%	None Detected	

Client Sample ID: 6C-CK-24 ***Lab Sample ID:*** **551200511-0027**

Sample Description: ROOM 24/MASONRY WALL JOINT CAULKING, WHITE, SOFT

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	White	0.0%	100%	None Detected	

Client Sample ID: 8A-CK-26 ***Lab Sample ID:*** **551200511-0028**

Sample Description: ROOM 26/CAULKING ON EXTERIOR LOUVRE

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Tan /White	0.0%	100%	None Detected	
TEM Grav. Reduction	2/17/2012	Tan /White	0.0%	100%	None Detected	

Client Sample ID: 8B-CK-26 ***Lab Sample ID:*** **551200511-0029**

Sample Description: ROOM 26/CAULKING ON EXTERIOR LOUVRE

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Tan /White	0.0%	100%	None Detected	

Client Sample ID: 8C-CK-26 ***Lab Sample ID:*** **551200511-0030**

Sample Description: ROOM 26/CAULKING ON EXTERIOR LOUVRE

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	2/17/2012	Tan /White	0.0%	100%	None Detected	

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EMSL Canada Order 551200511
Customer ID: 55DCSL97
Customer PO: 701477
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Analyst(s)

Kevin Pang	TEM Grav. Reduction	(5)
Merriam Haffar	PLM Grav. Reduction	(23)

Kevin Pang
or other Approved Signatory

Any questions please contact Kevin Pang.

Report amended: 02/21/201214:14:03 Replaces initial report from: 02/21/201209:37:07 Reason Code: Data Entry-Results Changed

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EMSL Canada Order 551200511
Customer ID: 55DCSL97
Customer PO: 701477
Project ID:

Attn: Ada Nguyen
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Fax: (905) 882-8962
Collected:
Received: 2/15/2012
Analyzed: 2/23/2012

Proj: JOSEPH GIBBONS P.S 701477

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 3A-CK-24 ***Lab Sample ID:*** **551200511-0013**

Sample Description: ROOM 24/DOOR CAULKING, INTERIOR, BROWN, SOFT

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	2/21/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 4A-MS-24 ***Lab Sample ID:*** **551200511-0019**

Sample Description: ROOM 24/MASTIC BELOW 12" VINYL FLOOR TILE, WHITE W/ BROWN SPOTS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	2/23/2012	Various /Black	0.0%	100%	None Detected	

Analyst(s)

Kevin Pang TEM Grav. Reduction (1)

Kevin Pang
or other Approved Signatory

Any questions please contact Kevin Pang.

Report amended: 02/21/201214:14:03 Replaces initial report from: 02/21/201214:14:03 Reason Code: Data Entry-Results Changed

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Collected:
Received: 3/23/2012
Analyzed: 3/29/2012

Proj: 701477 (JOSEPH GIBBONS)

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 7A-VFT-23A **Lab Sample ID:** 551201164-0001
Sample Description: ROOM 23A/12" VINYL FLOOR TILE, GREEN W/ WHITE STEAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012	White /Green	0.0%	94.6%	**5.4% Chrysotile**	
TEM Grav. Reduction	03/28/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 7B-VFT-16 **Lab Sample ID:** 551201164-0002
Sample Description: ROOM 16/12" VINYL FLOOR TILE, GREEN W/ WHITE STEAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 7C-VFT-10 **Lab Sample ID:** 551201164-0003
Sample Description: ROOM 10/12" VINYL FLOOR TILE, GREEN W/ WHITE STEAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 9A-PG-16 **Lab Sample ID:** 551201164-0004
Sample Description: ROOM 16/FIRESTOP, WHITE CEMENTITOUS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012	White	0.0%	97.4%	**2.6% Chrysotile**	
TEM Grav. Reduction	03/28/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 10A-VFT-9 **Lab Sample ID:** 551201164-0005
Sample Description: ROOM 9/12" VINYL FLOOR TILE, BROWN W/ WHITE STEAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012	Brown /White	0.0%	95.5%	**4.5% Chrysotile**	
TEM Grav. Reduction	03/28/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 10B-VFT-9 **Lab Sample ID:** 551201164-0006
Sample Description: ROOM 9/12" VINYL FLOOR TILE, BROWN W/ WHITE STEAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012				Positive Stop (Not Analyzed)	

Client Sample ID: 10C-VFT-9 **Lab Sample ID:** 551201164-0007
Sample Description: ROOM 9/12" VINYL FLOOR TILE, BROWN W/ WHITE STEAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012				Positive Stop (Not Analyzed)	

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EMSL Canada Order 551201164
Customer ID: 55DCSL97
Customer PO: 701477
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 11A-VFT-9 ***Lab Sample ID:*** **551201164-0008**

Sample Description: ROOM 9/12" VINYL FLOOR TILE, TAN W/ BROWN LIGHT STREAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012	Brown /Tan	0.0%	96.7%	**3.3% Chrysotile**	
TEM Grav. Reduction	03/28/2012			Positive Stop (Not Analyzed)		

Client Sample ID: 11B-VFT-9 ***Lab Sample ID:*** **551201164-0009**

Sample Description: ROOM 9/12" VINYL FLOOR TILE, TAN W/ BROWN LIGHT STREAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012			Positive Stop (Not Analyzed)		

Client Sample ID: 11C-VFT-9 ***Lab Sample ID:*** **551201164-0010**

Sample Description: ROOM 9/12" VINYL FLOOR TILE, TAN W/ BROWN LIGHT STREAKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012			Positive Stop (Not Analyzed)		

Client Sample ID: 12A-VFT-9 ***Lab Sample ID:*** **551201164-0011**

Sample Description: ROOM 9/BLACK ACCENT TILE STRIPS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012	Black	0.0%	99.7%	**0.29% Chrysotile**	
TEM Grav. Reduction	03/29/2012	Black	0.0%	89.2%	**10.8% Chrysotile**	

Client Sample ID: 12B-VFT-9 ***Lab Sample ID:*** **551201164-0012**

Sample Description: ROOM 9/BLACK ACCENT TILE STRIPS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012	Black	0.0%	99.7%	**0.28% Chrysotile**	

Client Sample ID: 12C-VFT-9 ***Lab Sample ID:*** **551201164-0013**

Sample Description: ROOM 9/BLACK ACCENT TILE STRIPS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012	Black	0.0%	99.7%	**0.34% Chrysotile**	

Client Sample ID: 13A-VFT-3 ***Lab Sample ID:*** **551201164-0014**

Sample Description: ROOM 3/12" VINYL FLOOR TILE, PEACH W/ PEACH SPECKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012	Peach	0.0%	100.0%	None Detected	
TEM Grav. Reduction	03/29/2012	Peach	0.0%	100%	None Detected	

Client Sample ID: 13B-VFT-3 ***Lab Sample ID:*** **551201164-0015**

Sample Description: ROOM 3/12" VINYL FLOOR TILE, PEACH W/ PEACH SPECKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012	Peach	0.0%	100.0%	None Detected	

EMSL Canada Inc.

10 Falconer Drive, Unit #3 Mississauga, ON L5N 3L8
Phone/Fax: 289-997-4602 / (289) 997-4607
http://www.emsl.com / torontolab@emsl.com

EMSL Canada Order 551201164
Customer ID: 55DCSL97
Customer PO: 701477
Project ID:

Attn: Ada Nguyen
Decommissioning Consulting Services Ltd.
121 Granton Drive
Unit 11
Richmond Hill, ON L4B 3N4

Phone: (905) 882-5984
Fax: (905) 882-8962
Collected:
Received: 3/23/2012
Analyzed: 3/29/2012

Proj: 701477 (JOSEPH GIBBONS)

Client Sample ID: 13C-VFT-3 ***Lab Sample ID:*** **551201164-0016**

Sample Description: ROOM 3/12" VINYL FLOOR TILE, PEACH W/ PEACH SPECKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	03/28/2012	Peach	0.0%	100.0%	None Detected	

EMSL Canada Inc.

10 Falconer Drive, Unit #3 Mississauga, ON L5N 3L8
Phone/Fax: 289-997-4602 / (289) 997-4607
http://www.emsl.com / torontolab@emsl.com

EMSL Canada Order 551201164
Customer ID: 55DCSL97
Customer PO: 701477
Project ID:

Attn:	Ada Nguyen	Phone:	(905) 882-5984
	Decommissioning Consulting Services Ltd.	Fax:	(905) 882-8962
	121 Granton Drive	Collected:	
	Unit 11	Received:	3/23/2012
	Richmond Hill, ON L4B 3N4	Analyzed:	3/29/2012
Proj:	701477 (JOSEPH GIBBONS)		

The samples in this report were submitted for asbestos bulk analysis. The reference number for these samples is the Order ID above. Please use this reference number when calling about these samples.

Sample Receipt Date:	03/23/2012	Sample Receipt Time:	10:00 am
Analysis Completed Date:	03/29/2012	Analysis Completed Time:	12:27 pm

Analyst(s):

Kevin Pang TEM Grav. Reduction (2)

Lisa Podzyhun PLM Grav. Reduction (8)

Matthew Davis PLM Grav. Reduction (2)

Reviewed and approved by:

Kevin Pang
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

EMSL Canada Inc.
10 Falconer Drive, Unit #3, Mississauga, ON L5N 3L8
Phone: 289-997-4602 Fax: (289) 997-4607 Email: torontolab@emsl.com

Attn: **Jean Daigle**
Decommissioning Consulting Services Ltd.
121 Granton Drive
Unit 11
Richmond Hill, ON L4B 3N4

Fax: (905) 882-8962 Phone: (905) 882-5984
Project: **701477/GIBBONS**

Customer ID: 55DCSL97
Customer PO: 701477
Received: 04/26/12 5:13 PM
EMSL Canada Or 551201700

EMSL Canada Pr
Analysis Date: 4/27/2012

Test Report:Qualitative Asbestos Analysis by Transmission Electron Microscopy (TEM) and Filtration Technique

Sample	Description	TEM Result	Notes
V-1A *551201700-0001*	VERMICULITE	**Actinolite**	

Initial report from 04/27/2012 15:07:57

Analyst(s)
Merriam Haffar (1)

Kevin Pang
or other approved signatory

THIS IS THE LAST PAGE OF THE REPORT.

APPENDIX C

SAMPLE LIST OF SUSPECT ASBESTOS-CONTAINING BUILDING MATERIALS FROM *A GUIDE TO THE REGULATION RESPECTING ASBESTOS ON CONSTRUCTION PROJECTS AND IN BUILDINGS AND REPAIR OPERATIONS*

APPENDIX C

SAMPLE LIST OF SUSPECT ASBESTOS-CONTAINING BUILDING MATERIALS

There are an estimated 3,000 products that contain asbestos. In Ontario, asbestos was widely used in sprayed-on material and in pipe and boiler insulation until 1973[1]. The use of many other asbestos-containing materials continued until the mid-1980s. Asbestos is still used in the manufacture of a limited number of products, including some floor tiles, cement products, friction materials and textiles. The following list was adapted from the United States Environmental Protection Agency's (EPA) *Sample List of Suspect Asbestos Containing Materials*[2]. It is not an all inclusive list but is intended as a general guide to show which types of building materials may contain asbestos.

Possible Asbestos-Containing Materials in Buildings

- Acoustical Plaster
- Adhesives
- Asphalt Floor Tile
- Base Flashing
- Blown-in (Loose Fill) Insulation
- Boiler Insulation
- Breaching Insulation
- Caulking/Putties
- Ceiling Tiles and Lay-in Panels
- Cement Pipes
- Cement Siding
- Cement Wallboard
- Construction Mastics (floor tile, carpet, ceiling tile, etc.)
- Cooling Towers
- Decorative Plaster
- Ductwork Flexible Fabric Connections
- Electrical Cloth
- Electrical Wiring Insulation
- Elevator Brake Shoes
- Elevator Equipment Panels
- Fire Doors
- Fireproofing Materials
- Flooring Backing
- Heating and Electrical Ducts
- High Temperature Gaskets
- HVAC Duct Insulation
- Joint Compounds
- Pipe Insulation (corrugated air-cell, block, etc.)
- Roofing Felt
- Roofing Shingles
- Spackling Compounds
- Sprayed-on Insulation
- Taping Compounds (thermal)
- Textured Paper Products
- Vinyl Floor Tile
- Vinyl Sheet Flooring
- Vinyl Wall Coverings
- Wallboard

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(1) J.S. Dupre, J.F. Mustard & R.J. Uffin, *Report of the Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos in Ontario*, Ontario Ministry of the Attorney General, Toronto, Ontario, 1984, page 12.

(2) U.S. Environmental Protection Agency, http://www.epa.gov/Region06/6pd/asbestos/asbmatl.htm.