

HALTON DISTRICT SCHOOL BOARD

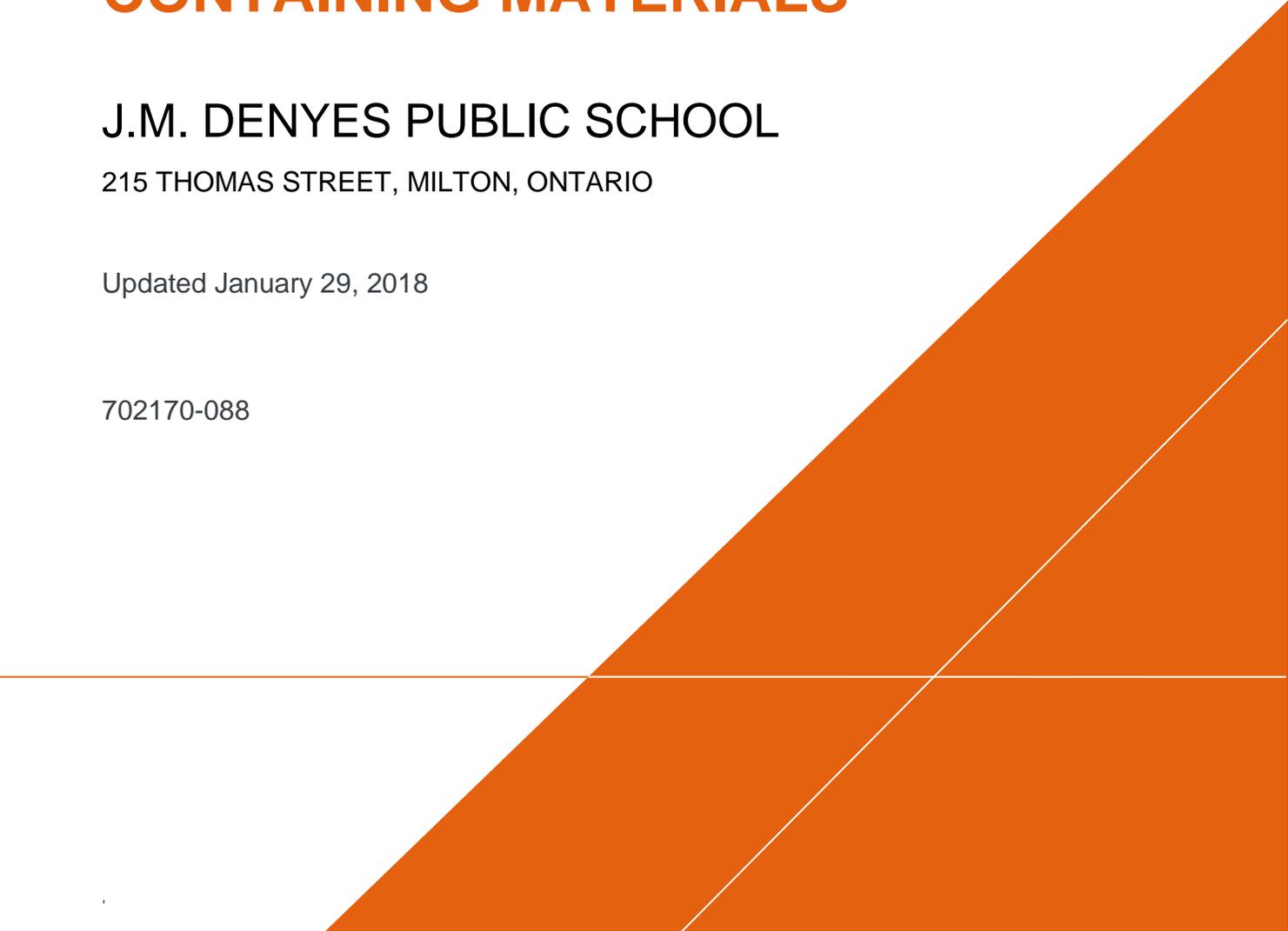
SURVEY OF ASBESTOS- CONTAINING MATERIALS

J.M. DENYES PUBLIC SCHOOL

215 THOMAS STREET, MILTON, ONTARIO

Updated January 29, 2018

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SURVEY OF ASBESTOS-CONTAINING MATERIALS
J.M. DENYES PUBLIC SCHOOL



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**SURVEY OF ASBESTOS-
CONTAINING MATERIALS**

J.M. DENYES PUBLIC SCHOOL
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SURVEY OF ASBESTOS-CONTAINING MATERIALS

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1 INTRODUCTION

Arcadis Canada Inc. (Arcadis) was retained by the Halton District School Board to provide an updated survey of the locations of asbestos-containing materials at J.M. Denyes Public School located at 215 Thomas Street in Milton, Ontario following asbestos remediation associated with the renovation project in July 2017.

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.

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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 fireproofing or acoustical 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 METHODOLOGY

2.1 Survey

Site inspections were carried out by Arcadis staff in May, June and August 2013 to determine the locations of building construction materials suspected of containing asbestos. Site inspections were also performed in select areas of the building in February 2017. All readily accessible areas, including spaces above accessible suspended ceilings, were inspected throughout the facility, except areas of the building constructed in 1990 or later, which were not inspected. This report has been updated to include information from additional investigations and remediation that took place in 2017.

Arcadis reviewed reports entitled “*Pre-Renovation Designated Substances and Hazardous Materials Survey, J.M. Denyes Public School, 215 Thomas Street, Milton, Ontario*” dated March 8, 2017 and “*Designated Substances and Hazardous Materials Survey, Kindergarten Renovation Project, J.M. Denyes Public School, 215 Thomas Street, Milton, Ontario.*” dated June 2013. Information and bulk sample analysis results obtained from these reports were utilized by Arcadis in the preparation of this report.

Representative bulk samples of material from different ages of construction were collected by Arcadis staff during the course of the site inspection and were forwarded to EMSL Analytical Inc. and EMSL Canada Inc. (EMSL) for analysis of asbestos content. 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. No recommended corrective actions were required at the time that this report was prepared.

3 SURVEY RESULTS

On the basis of the survey work carried out, we report that friable asbestos-containing materials are present in J.M. Denyes Public School in the following accessible applications:

- Thermal insulation applied to pipe fittings above ceiling assemblies located in Rooms 14, 15, 16, 16A, 26, 27, 30, 31, 31A, 31B, 32, 39 and 42;
- Thermal insulation applied to pipe fittings below ceiling assemblies located in Rooms 23, 28 and 43;
- Thermal insulation applied to pipe straights (Air-cell) below ceiling assemblies located in Rooms 2, 3, 17A and 22; and
- Thermal insulation applied pipe fittings and straights (Air-cell) below ceiling assemblies located in Rooms 2, 3, 4, 5, 8, 9 and 21; and
- Acoustic spray applied to exterior soffit located at Room 33.

Asbestos-containing thermal insulation applied to pipe fittings is a grey-coloured cementitious material. Asbestos-containing thermal insulation applied to pipe straights is “Air-cell” insulation. “Air-cell” is a trade name for a grey-coloured corrugated paper-like type of pipe insulation, usually found on heating and domestic hot water piping.

Thermal insulation applied to pipe straights on domestic cold-water piping and sanitary and rain water piping observed throughout the facility is comprised of “anti-sweat” thermal insulation. “Anti-sweat” insulation is a layered paper-like material, typically brown in colour that may contain intermittent layers of black tar-like paper and/or intermittent layers of a white paper-like material. The “anti-sweat” thermal insulation does not contain asbestos.

Glass fibre insulation is readily visually distinguishable (typically yellow in colour) from asbestos containing insulation materials and was, therefore, not tested for asbestos content.

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:

- 9” x 9” vinyl floor tiles located in Rooms 9, 10 and 43;
- 9” x 9” vinyl floor tiles and associated mastic located in Rooms 15, 15B and 16;
- 12” x 12” vinyl floor tiles located in Rooms 5, 6, 20B, 23, 29 and 29B;

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- Vinyl floor tiles (assumed asbestos) located in Rooms 12, 14, 15A,
- Cement board applied to walls under 12" x 12" acoustic tiles located in Rooms 2, 3, 4, 5, 8 and 9;
- Cement board applied to walls under 12" x 12" acoustic tiles and in bulkheads located in Rooms 6 and 7;
- Cement board applied to wall behind heaters located in Room 10;
- Cement board on exterior soffits outside Rooms 31A, 31B and 32; and
- Caulking applied on door frames of exit doors in Rooms 17, 17B, 37, and 40.

Asbestos-containing mastic associated with vinyl floor tiles were only tested in Rooms 15, 15B and 16. Mastics associated with all other vinyl floor tiles throughout the school should be assumed to contain asbestos or tested for asbestos content at the time of renovations or as the need arises.

Asbestos-containing caulking associated with door frames was only tested in Rooms 17, 17B, 37 and 40. All door caulking in all other areas of the school was not tested and should be assumed to contain asbestos or tested as the need arises of time of renovations.

A room-by-room summary of the locations and conditions of asbestos-containing materials identified is presented in Table 3.2. The locations of accessible asbestos containing materials are identified on the floor plans provided in Appendix A.

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

Table 3.1: Summary of Laboratory Analyses of Bulk Samples

Sample N ^o	Location	Description	Asbestos Content
1-A	Room: 10	9" x 9" vinyl floor tile blue/green/black in colour with white or black streaks	1.5% Chrysotile
2-A	Room: 10	Vinyl sheeting – red in colour on counter	None detected None detected (TEM)
2-B	Room: 9	Vinyl sheeting – red in colour on counter	None detected
2-C	Room: 8	Vinyl sheeting – red in colour on counter	None detected
3-A	Room: 7	12" x 12" vinyl floor tile – pink in colour with brown and white fleck	None detected None detected (TEM)
3-B	Room: 7	12" x 12" vinyl floor tile – pink in colour with brown and white fleck	None detected

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Sample N°	Location	Description	Asbestos Content
3-C	Room: 7	12" x 12" vinyl floor tile – pink in colour with brown and white fleck	None detected
4-A	Room: 8	12" x 12" vinyl floor tile – pink with light and dark fleck (new look)	None detected None detected (TEM)
4-B	Room: 1	12" x 12" vinyl floor tile – pink with light and dark fleck (new look)	None detected
4-C	Room: 1	12" x 12" vinyl floor tile – pink with light and dark fleck (new look)	None detected
5-A	Room: 6	12" x 12" vinyl floor tile – white in colour with brown streaks	0.34% Chrysotile ⁽¹⁾
6-A	Room: 3	12" x 12" vinyl floor tile – brown in colour with light and dark fleck	None detected None detected (TEM)
6-B	Room: 4	12" x 12" vinyl floor tile – brown in colour with light and dark fleck	None detected
6-C	Room: 4	12" x 12" vinyl floor tile – brown in colour with light and dark fleck	None detected
7-A	Room: 2	12" x 12" vinyl floor tile – white in colour with grey and white fleck (new look)	None detected None detected (TEM)
7-B	Room: 2	12" x 12" vinyl floor tile – white in colour with grey and white fleck (new look)	None detected
7-C	Room: 2	12" x 12" vinyl floor tile – white in colour with grey and white fleck (new look)	None detected
8-A	Room: 36A	12" x 12" vinyl floor tile – white in colour with light and dark brown fleck	None detected None detected (TEM)
8-B	Room: 34	12" x 12" vinyl floor tile – white in colour with light and dark brown fleck	None detected
8-C	Room: 26	12" x 12" vinyl floor tile – white in colour with light and dark brown fleck	None detected
9-A	Room: 21A	12" x 12" vinyl floor tile – blue/teal in colour with light and dark fleck	None detected None detected (TEM)
9-B	Room: 22	12" x 12" vinyl floor tile – blue/teal in colour with light and dark fleck	None detected
9-C	Room: 22	12" x 12" vinyl floor tile – blue/teal in colour with light and dark fleck	None detected
10-A	Room: 43	9" x 9" vinyl floor tile – beige in colour with brown and white streak	2.0% Chrysotile

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Sample N°	Location	Description	Asbestos Content
11-A	Room: 29B	12" x 12" vinyl floor tile – olive in colour with white and brown streak	1.0% Chrysotile
12-A	Room: 29A	12" x 12" vinyl floor tile – white in colour with black streak	None detected None detected (TEM)
12-B	Room: 29A	12" x 12" vinyl floor tile – white in colour with black streak	None detected
12-C	Room: 29A	12" x 12" vinyl floor tile – white in colour with black streak	None detected
13-A	Room: 23	12" x 12" vinyl floor tile – olive in colour	1.2% Chrysotile
14-A	Room: 39	12" x 12" vinyl floor tile – pale yellow in colour with black dots	None detected None detected (TEM)
14-B	Room: 39	12" x 12" vinyl floor tile – pale yellow in colour with black dots	None detected
14-C	Room: 39	12" x 12" vinyl floor tile – pale yellow in colour with black dots	None detected
15-A	Room: 10	Drywall joint compound – white in colour from bulkhead	None detected
15-B	Room: 9	Drywall joint compound – white in colour from bulkhead	None detected
15-C	Room: 8	Drywall joint compound – white in colour from bulkhead	None detected
15-D	Room: 6	Drywall joint compound – white in colour from wall	None detected
15-E	Room: 2	Drywall joint compound – white in colour from wall	None detected
16-A	Room: 10	Plaster – white in colour smooth top coat from wall (1955)	None detected
16-B	Room: 7	Plaster – white in colour smooth top coat from wall (1955)	None detected
16-C	Room: 8	Plaster – white in colour smooth top coat from wall (1955)	None detected
16-D	Room: 5	Plaster – white in colour smooth top coat from wall (1955)	None detected
16-E	Room: 4	Plaster – white in colour smooth top coat from wall (1955)	None detected
17-A	Room: 10	Plaster – grey in colour scratch coat from wal1 (1955)	None detected
17-B	Room: 7	Plaster – grey in colour scratch coat from wal1 (1955)	None detected

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Sample N°	Location	Description	Asbestos Content
17-C	Room: 8	Plaster – grey in colour scratch coat from wal1 (1955)	None detected
17-D	Room: 5	Plaster – grey in colour scratch coat from wal1 (1955)	None detected
17-E	Room: 4	Plaster – grey in colour scratch coat from wal1 (1955)	None detected
18-A	Room: 20	Plaster – white in colour smooth top coat from wall (1959)	None detected
18-B	Room: 20	Plaster – white in colour smooth top coat from wall (1959)	None detected
18-C	Room: 20	Plaster – white in colour smooth top coat from wall (1959)	None detected
19-A	Room: 20	Plaster – grey in colour scratch coat from wall (1959)	None detected
19-B	Room: 20	Plaster – grey in colour scratch coat from wall (1959)	None detected
19-C	Room: 20	Plaster – grey in colour scratch coat from wall (1959)	None detected
20	Room: 8	Pipe fitting insulation – grey in colour	75% Chrysotile
21	Room: 8	Pipe straight insulation – white in colour	85% Chrysotile
22	Exterior	Cement board – grey in colour from exterior soffit	8.1% Chrysotile
23-A	Room: 10	12" x 12" ceiling tile uniform holes (cellulose) from wall	None detected
23-B	Room: 8	12" x 12" ceiling tile uniform holes (cellulose) from wall	None detected
23-C	Room: 4	12" x 12" ceiling tile uniform holes (cellulose) from wall	None detected
1	Area 33	Exterior soffit texture coat	30% Amosite 6% Chrysotile
3	Area 21	Domestic water pipe fitting insulation	40% Chrysotile
4	Area 21	Hot water heating return pipe fitting insulation	44% Chrysotile
5	Area 21	Hot water heating return pipe straight insulation	40% Chrysotile
6	Area 21	Domestic water pipe straight insulation	None detected

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Sample N°	Location	Description	Asbestos Content
7	Area 21	Hot water supply pipe straight insulation	50% Chrysotile
8	Area 18	12" x 12" ceiling tile	None detected
9	Area 18	2' x 4' ceiling tile	None detected
10	Area 18	2' x 4' ceiling tile	None detected
11	Area 5	Hot water heating pipe straight insulation	36% Chrysotile
12	Area 14	2'x 4' ceiling tile	None detected
13	Area 31	Hot water heating straight insulation	None detected
1-A	Room 13	Black paper on wall behind radiator	None detected ⁽²⁾⁽⁵⁾ None detected (TEM) ⁽²⁾⁽⁵⁾
1-B	Room 13	Black paper on wall behind radiator	None detected ⁽²⁾⁽⁵⁾
1-C	Room 13	Black paper on wall behind radiator	None detected ⁽²⁾⁽⁵⁾
2-A	Room 13	12" vinyl floor tile – beige with directional beige fleck (new style)	None detected ⁽²⁾⁽⁵⁾ None detected (TEM) ⁽²⁾⁽⁵⁾
2-B	Room 13	12" vinyl floor tile – beige with directional beige fleck (new style)	None detected ⁽²⁾⁽⁵⁾
2-C	Room 13	12" vinyl floor tile – beige with directional beige fleck (new style)	None detected ⁽²⁾⁽⁵⁾
3-A	Room 13	Mastic on floor tile sample No. 2 – black coloured	0.83% Chrysotile ⁽²⁾⁽⁵⁾
4-A	Room 11	Caulking on interior window frames – white coloured	None detected ⁽²⁾ None detected (TEM) ⁽²⁾
4-B	Room 13	Caulking on interior window frames – white coloured	None detected ⁽²⁾
4-C	Room 15	Caulking on interior window frames – white coloured	None detected ⁽²⁾
5-A	Room 11	Vinyl baseboard – black coloured	None detected ⁽²⁾ None detected (TEM) ⁽²⁾
5-B	Room 15	Vinyl baseboard – black coloured	None detected ⁽²⁾
5-C	Room 13	Vinyl baseboard – light-brown coloured	None detected ⁽²⁾⁽⁵⁾
6-A	Room 11	Mastic on vinyl baseboard – brown coloured	None detected ⁽²⁾⁽⁵⁾ None detected (TEM) ⁽²⁾⁽⁵⁾
6-B	Room 15	Mastic on vinyl baseboard – brown coloured	None detected ⁽²⁾

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Sample N ^o	Location	Description	Asbestos Content
6-C	Room 13	Mastic on vinyl baseboard – brown coloured	None detected ⁽²⁾
7-A	Room 13	Joint compound on drywall wall (1959)	None detected ⁽²⁾
7-B	Room 13A	Joint compound on drywall wall (1959)	None detected ⁽²⁾
7-C	Room 11	Joint compound on drywall wall (1959)	None detected ⁽²⁾
7-D	Room 15	Joint compound on drywall wall (1959)	None detected ⁽²⁾
7-E	Room 36	Joint compound on drywall wall (1955)	None detected ⁽²⁾
8-A	Room 11	Plaster on bulkhead – top coat (1959)	None detected ⁽²⁾
8-B	Room 11	Plaster on bulkhead – top coat (1959)	None detected ⁽²⁾
8-C	Room 15	Plaster on wall – top coat (1959)	None detected ⁽²⁾
9-A	Room 11	Plaster on bulkhead – scratch coat (1959)	None detected ⁽²⁾
9-B	Room 11	Plaster on bulkhead – scratch coat (1959)	None detected ⁽²⁾
9-C	Room 15	Plaster on wall – scratch coat (1959)	None detected ⁽²⁾
10-A	Room 11	9" vinyl floor tile – mauve-brown coloured with wide white streaks	2.9% Chrysotile ⁽²⁾⁽⁵⁾
11-A	Room 11	Mastic on 9" floor tile sample No. 10 – black coloured	1.1% Chrysotile ⁽²⁾⁽⁵⁾
12-A	Room 13	Mortar in concrete block walls	None detected ⁽²⁾ None detected (TEM) ⁽²⁾
12-B	Room 13	Mortar in concrete block walls	None detected ⁽²⁾
12-C	Room 13	Mortar in concrete block walls	None detected ⁽²⁾
13-A	Room 15	9" vinyl floor tile – light blue coloured with wide directional white streaks	2.1% chrysotile ⁽²⁾
14-A	Room 16	9" vinyl floor tile – chocolate-brown coloured with directional white streaks	2.5% Chrysotile ⁽²⁾
15-A	Corridor 32	Thermal insulation on pipe straights ("anti-sweat") black paper	None detected ⁽²⁾ None detected (TEM) ⁽²⁾
15-B	Corridor 31	Thermal insulation on pipe straights ("anti-sweat") black paper	None detected ⁽²⁾
15-C	Corridor 31	Thermal insulation on pipe straights ("anti-sweat") black paper	None detected ⁽²⁾

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Sample N°	Location	Description	Asbestos Content
16-A	Corridor 32	2' x 2' ceiling tile – random fissure with a white coloured back	None detected ⁽²⁾
16-B	Corridor 31	2' x 2' ceiling tile – random fissure with a white coloured back	None detected ⁽²⁾
16-C	Corridor 31	2' x 2' ceiling tile – random fissure with a white coloured back	None detected ⁽²⁾
17-A	Corridor 18	2' x 4' ceiling tile – random fissure with a white coloured back	None detected ⁽²⁾
17-B	Corridor 18	2' x 4' ceiling tile – random fissure with a white coloured back	None detected ⁽²⁾
17-C	Corridor 18	2' x 4' ceiling tile – random fissure with a white coloured back	None detected ⁽²⁾
18-A	Corridor 18	2' x 4' ceiling tile – fissure on 2'	None detected ⁽²⁾
18-B	Corridor 18	2' x 4' ceiling tile – fissure on 2'	None detected ⁽²⁾
18-C	Corridor 18	2' x 4' ceiling tile – fissure on 2'	None detected ⁽²⁾
19-A	Corridor 18	12" x 12" ceiling tile – pin hole style - cellulose	None detected ⁽²⁾
19-B	Corridor 18	12" x 12" ceiling tile – pin hole style - cellulose	None detected ⁽²⁾
19-C	Corridor 18	12" x 12" ceiling tile – pin hole style - cellulose	None detected ⁽²⁾
20-A	Room 36	2' x 4' ceiling tile – fissure on 4' - cellulose	None detected ⁽²⁾
20-B	Room 36	2' x 4' ceiling tile – fissure on 4' - cellulose	None detected ⁽²⁾
20-C	Room 36	2' x 4' ceiling tile – fissure on 4' - cellulose	None detected ⁽²⁾
1A	Room 37	Caulking – grey in colour and brittle from interior door frame	None detected ⁽³⁾
1B	Room 40	Caulking – grey in colour and brittle from interior door frame	3% Chrysotile ⁽³⁾
2A	Room 17	Caulking – from interior door frame	None detected ⁽³⁾
2B	Room 17	Caulking – from interior door frame	1% Chrysotile ⁽³⁾
3A	Room 37	Drywall joint compound – white in colour from wall (Era 1)	None detected ⁽³⁾
3B	Room 40	Drywall joint compound – white in colour from wall (Era 1)	None detected ⁽³⁾
3C	Room 40	Drywall joint compound – white in colour from wall (Era 1)	None detected ⁽³⁾
4A	Room 17	Drywall joint compound – white in colour from wall (Era 2)	None detected ⁽³⁾

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Sample N°	Location	Description	Asbestos Content
4B	Room 17	Drywall joint compound – white in colour from wall (Era 2)	None detected ⁽³⁾
4C	Room 17B	Drywall joint compound – white in colour from wall (Era 2)	None detected ⁽³⁾
5A	Room 17	Textured paint – cream/rust in colour from concrete block wall	None detected ⁽³⁾
5B	Room 17	Textured paint – cream/rust in colour from concrete block wall	None detected ⁽³⁾
5C	Room 17B	Textured paint – cream/rust in colour from concrete block wall	None detected ⁽³⁾
6A	Room 37	Mortar – grey in colour from concrete block wall (Era 1)	None detected ⁽³⁾
6B	Room 40	Mortar – grey in colour from concrete block wall (Era 1)	None detected ⁽³⁾
6C	Room 40	Mortar – grey in colour from concrete block wall (Era 1)	None detected ⁽³⁾
7A	Room 37	Mortar – grey in colour from glazed concrete block wall (Era 1)	None detected ⁽³⁾
7B	Room 40	Mortar – grey in colour from glazed concrete block wall (Era 1)	None detected ⁽³⁾
7C	Room 40	Mortar – grey in colour from glazed concrete block wall (Era 1)	None detected ⁽³⁾
8A	Room 17	Mortar – grey in colour from concrete block wall (Era 2)	None detected ⁽³⁾
8B	Room 21	Mortar – grey in colour from concrete block wall (Era 2)	None detected ⁽³⁾
8C	Room 17B	Mortar – grey in colour from concrete block wall (Era 2)	None detected ⁽³⁾
9A	Room 37	2' x 2' ceiling tile – random small fissure with pinholes	None detected ⁽³⁾
9B	Room 40	2' x 2' ceiling tile – random small fissure with pinholes	None detected ⁽³⁾
9C	Room 40	2' x 2' ceiling tile – random small fissure with pinholes	None detected ⁽³⁾
1A	Room 18	2' x 4' ceiling tile – Random fissure with pinholes	None detected ⁽⁴⁾
1B	Room 18	2' x 4' ceiling tile – Random fissure with pinholes	None detected ⁽⁴⁾
1C	Room 18	2' x 4' ceiling tile – Random fissure with pinholes	None detected ⁽⁴⁾
2A	Room 39	Plaster – white in colour top coat from ceiling	None detected ⁽⁴⁾
2B	Room 39	Plaster – white in colour top coat from ceiling	None detected ⁽⁴⁾
2C	Room 39	Plaster – white in colour top coat from ceiling	None detected ⁽⁴⁾
3A	Room 39	Plaster – light grey in colour scratch coat from ceiling	None detected ⁽⁴⁾

SURVEY OF ASBESTOS-CONTAINING MATERIALS

J.M. DENYES PUBLIC SCHOOL

Sample N ^o	Location	Description	Asbestos Content
3B	Room 39	Plaster – light grey in colour scratch coat from ceiling	None detected ⁽⁴⁾
3C	Room 39	Plaster – light grey in colour scratch coat from ceiling	None detected ⁽⁴⁾
4A	Room 18	1' x 1' ceiling tile – uniform holes (Cellulose)	None detected ⁽⁴⁾
4B	Room 18	1' x 1' ceiling tile – uniform holes (Cellulose)	None detected ⁽⁴⁾
4B	Room 18	1' x 1' ceiling tile – uniform holes (Cellulose)	None detected ⁽⁴⁾

NOTES:

- (1) "Asbestos-containing material" is defined as material that contains 0.5% or more asbestos by dry weight.
- (2) Sample results derived from a report prepared by Arcadis for the Halton District School Board entitled *Designated Substances and Hazardous Materials Survey Kindergarten Renovation Project, J.M. Denyes Public School, 215 Thomas Street, Milton, Ontario* dated June 2013.
- (3) Sample results derived from a report prepared by Arcadis for the Halton District School Board entitled *Pre-Renovation Designated Substances and Hazardous Materials Survey, J.M. Denyes Public School, 215 Thomas Street, Milton, Ontario* dated March 8, 2017
- (4) Sample results derived from samples collected by Arcadis staff in July 2017.
- (5) Samples taken from this area have since been removed and are provided here for reference purposes only.

< = less than.

Bulk samples were analyzed by Polarized Light Microscopy (PLM) analysis, except where "TEM" is noted, in which case Transmission Electron Microscopy analysis was also performed.

Chrysotile = Chrysotile asbestos.

Amosite = Amosite asbestos.

SURVEY OF ASBESTOS-CONTAINING MATERIALS

J.M. DENYES PUBLIC SCHOOL

Table 3.2: Summary of Asbestos-Containing Materials

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	1							NACMO
1	2	Pipe straight insulation	40%-85% Chrysotile	Below ceiling	3 to15 m	Friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Below ceiling	<5 fittings	Friable	G	
		Cement board	8.1% Chrysotile	Behind 12" x 12" ceiling tiles on wall	10 to 50 sq. m	Non-friable	G	
1	2B							NACMO
1	3	Pipe straight insulation	40%-85% Chrysotile	Below ceiling	3 to15 m	Friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Below ceiling	<5 fittings	Friable	G	
		Cement board	8.1% Chrysotile	Behind 12" x 12" ceiling tiles on wall	10 to 50 sq. m	Non-friable	G	
1	4	Pipe straight insulation	40%-85% Chrysotile	Below ceiling	10 to15 m	Friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Below ceiling	<5 fittings	Friable	G	
		Cement board	8.1% Chrysotile	Behind 12" x 12" ceiling tiles on wall	10 to 50 sq. m	Non-friable	G	
1	5	Vinyl floor tile (12" x 12")	0.69% Chrysotile	All flooring	50 to100 sq. m	Non-friable	G	
		Pipe straight insulation	40%-85% Chrysotile	Below ceiling	3 to15 m	Friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Below ceiling	<5 fitting	Friable	G	
		Cement board	8.1% Chrysotile	Behind 12" x 12" ceiling tiles on wall	10 to 50 sq. m	Non-friable	G	

SURVEY OF ASBESTOS-CONTAINING MATERIALS

J.M. DENYES PUBLIC SCHOOL

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	6	Vinyl floor tile (12" x 12")	0.69% Chrysotile	All flooring	50 to100 sq. m	Non-friable	G	
		Cement board	8.1% Chrysotile	Behind 12" x 12" ceiling tiles on wall and in bulk head	10 to 50 sq. m	Non-friable	G	
1	7	Cement board	8.1% Chrysotile	Behind 12" x 12" ceiling tiles on wall and in bulk head	10 to 50 sq. m	Non-friable	G	
1	8	Pipe straight insulation	40%-85% Chrysotile	Below ceiling	3 to15 m	Friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Below ceiling	<5 fitting	Friable	G	
		Cement board	8.1% Chrysotile	Behind 12" x 12" ceiling tiles on wall	10 to 50 sq. m	Non-friable	G	
1	9	Vinyl floor tile (9" x 9")	1.5% Chrysotile	All flooring	50 to100 sq. m	Non-friable	G	
		Pipe straight insulation	40%-85% Chrysotile	Below ceiling	3 to15 m	Friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Below ceiling	<5 fitting	Friable	G	
		Cement board	8.1% Chrysotile	Behind 12" x 12" ceiling tiles on wall	10 to 50 sq. m	Non-friable	G	
1	10	Vinyl floor tile (9" x 9")	1.5% Chrysotile	All flooring	50 to100 sq. m	Non-friable	G	
		Cement board	8.1% Chrysotile	Behind heaters	10 to 50 sq. m	Non-friable	G	
1	11							NACMO
1	12	Vinyl floor tile	Assumed asbestos	All flooring	50 to 100 sq. m	Non-friable	G	
1	13							NACMO

SURVEY OF ASBESTOS-CONTAINING MATERIALS

J.M. DENYES PUBLIC SCHOOL

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	13A							NACMO
1	14	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	5 to 10 fittings	Friable	G	
		Vinyl floor tile	Assumed asbestos	All flooring	50 to 100 sq. m	Non-friable	G	
1	15	Vinyl floor tile (9" x 9")	2.5% Chrysotile	All flooring	50 to 100 sq. m	Non-friable	G	
		Floor tile mastics	1.1% Chrysotile	Below floor tiles	50 to 100 sq. m	Non-friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	5 to 10 fittings	Friable	G	
1	15A	Vinyl floor tile	Assumed asbestos	All flooring	50 to 100 sq. m	Non-friable	G	
1	15B	Vinyl floor tile (9" x 9")	2.9% Chrysotile	All flooring	5 to 10 sq. m	Non-friable	G	
		Floor tile mastics	1.1% Chrysotile	Below floor tiles	5 to 10 sq. m	Non-friable	G	
1	16	Vinyl floor tile (9" x 9")	2.1% Chrysotile	All flooring	50 to 100 sq. m	Non-friable	G	
		Floor tile mastics	1.1% Chrysotile	Below floor tiles	50 to 100 sq. m	Non-friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	<5 fittings	Friable	G	
1	16A	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	1 fitting	Friable	P	Demolition of solid ceiling required to access asbestos thermal insulation on piping
1	17	Caulking	1% Chrysotile	Interior door frame	3 to 15 m	Non-friable	G	
1	17A							NACMO

SURVEY OF ASBESTOS-CONTAINING MATERIALS

J.M. DENYES PUBLIC SCHOOL

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	17B	Caulking	1% Chrysotile	Interior door frame	3 to 5 m	Non-friable	G	
1	18							NACMO
1	19							NACMO
1	19A							NACMO
1	20	Vinyl floor tile (12" x 12")	0.69% Chrysotile	All flooring	5 to 10 sq. m	Non-friable	G	
1	21	Pipe straight insulation	40%-85% Chrysotile	Below ceiling	>30 m	Friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Below ceiling	>20 fittings	Friable	G	
1	21A							NACMO
1	22	Pipe straight insulation	Assumed asbestos	Below ceiling at gym entrance	3 to 15 m	Friable	G	No access to piping
1	23	Vinyl floor tile (12" x 12")	1.2% Chrysotile	All flooring	10 to 20 sq. m	Non-friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Below ceiling	10 to 20 fittings	Friable	G	
1	24							NACMO
1	25							NACMO
1	26	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	<5 fittings	Friable	G	
1	27	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling.	3 to 5 fittings	Friable	G	
1	28	Pipe fitting insulation	40%-75% Chrysotile	Below ceiling	10 to 15 fittings	Friable	G	
1	29	Vinyl floor tile (12" x 12")	1.0% Chrysotile	70% of floor	5 to 10 sq. m	Non-friable	G	
1	29A							NACMO

SURVEY OF ASBESTOS-CONTAINING MATERIALS

J.M. DENYES PUBLIC SCHOOL

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	29B	Vinyl floor tile (12" x 12")	1.0% Chrysotile	All flooring	5 to 10 sq. m	Non-friable	G	
1	30	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	5 to 10 fittings	Friable	G	
1	31	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	>20 fittings	Friable	G	
1	31A	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	5 to 10 fittings	Friable	G	
		Cement board	8.1% Chrysotile	Exterior soffit	5 to 10 sq. m	Non-friable	G	
1	31B	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	<5 fittings	Friable	G	
		Cement board	8.1% Chrysotile	Exterior soffit	5 to 10 sq. m	Non-friable	G	
1	32	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	5 to 10 fittings	Friable	G	
1	33	Acoustic spray	30% Amosite 6% Chrysotile	Exterior Soffit	10 to 20 sq. m	Friable	G	
1	34							NACMO
1	35	Vinyl floor tile	Assumed asbestos	All flooring	50 to 100 sq. m	Non-friable	G	
1	36							NACMO
1	36A							NACMO
1	36B							NACMO
1	37	Caulking	3% Chrysotile	Interior door frame	3 to 15 m	Non-friable	G	
1	38	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	<5 fittings	Friable	G	NACMO
1	39	Pipe fitting insulation	40%-75% Chrysotile	Above ceiling	<5 fittings	Friable	G	

SURVEY OF ASBESTOS-CONTAINING MATERIALS

J.M. DENYES PUBLIC SCHOOL

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	40	Caulking	3% Chrysotile	Interior door frame	3 to 15 m	Non-friable	G	
1	41							NACMO
1	42							NACMO
1	43	9" x 9" vinyl floor tile	2.0% Chrysotile	floor	5 to 10 sq. m	Non-friable	G	
		Pipe fitting insulation	40%-75% Chrysotile	Below ceiling	<5 fittings	Friable	G	

NOTES:

< = Less than.

> = Greater than.

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 or plaster ceilings, and below carpets).

4 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
- 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

⁽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.

SURVEY OF ASBESTOS-CONTAINING MATERIALS

J.M. DENYES PUBLIC SCHOOL

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 Arcadis, including, but not limited to, roofing materials, fire doors, mastics or cementitious levelling compound under vinyl flooring, acoustic ceiling tile adhesive, grout, 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 may also be present in the form of vermiculite insulation in cavities in concrete or cement block walls (used as in-fill insulation). 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 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 Arcadis identified all asbestos-containing materials present in the subject facility. The work undertaken by Arcadis 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 Arcadis 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



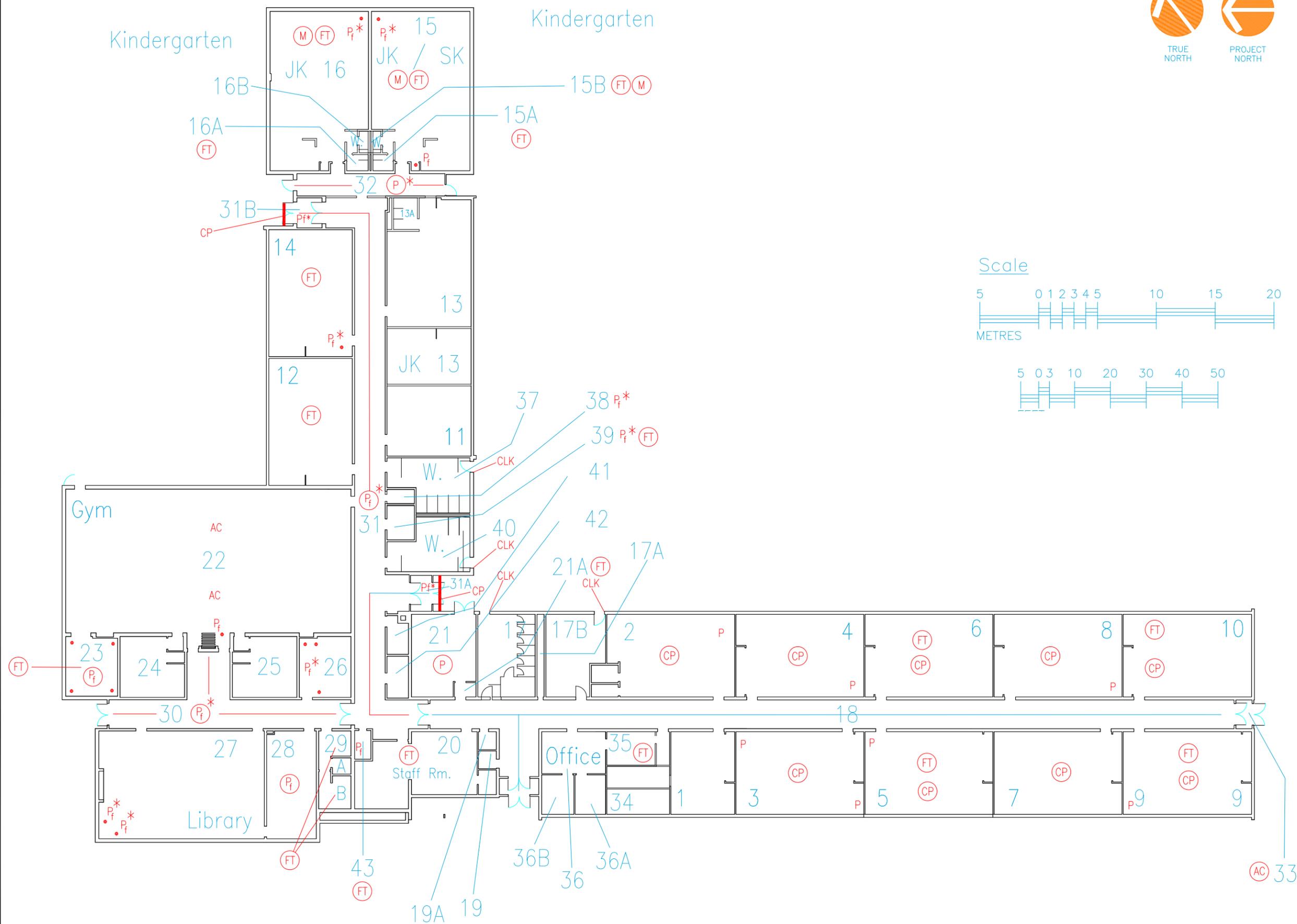
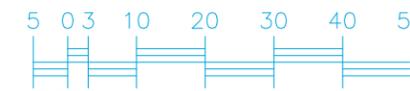
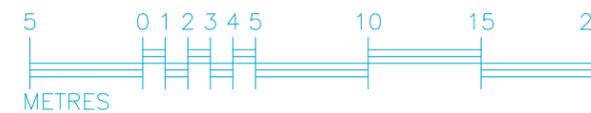
Z:\702000 Series\702170-000 Updated Survey 2017\702170-088 J.M. Denyes P.S.dwg LAYOUT: 702170-088 J.M. Denyes P.S. 1ST FL. PLOTTED: 1/30/2018 2:09 PM BY: LANDRY, PAUL



LEGEND:

- 6 FUNCTIONAL SPACE
- THROUGHOUT FUNCTIONAL SPACE
- * ABOVE CEILING ASSEMBLY
- P ASBESTOS ON PIPING (FRIABLE)
- P_f ASBESTOS ON PIPE FITTINGS ONLY (FRIABLE)
- AC ASBESTOS ACOUSTIC SPRAY (FRIABLE)
- FT ASBESTOS FLOOR TILE (NON-FRIABLE)
- CLK ASBESTOS CAULKING ON DOOR FRAME (NON-FRIABLE)
- CP ASBESTOS CEMENT PRODUCT
- M ASBESTOS FLOOR MASTIC

Scale



NOTE:

INTERIORS OF ALL FIRE DOORS ARE ASSUMED TO CONTAIN ASBESTOS.



HALTON DISTRICT SCHOOL BOARD

J. M. DENYES PUBLIC SCHOOL
SURVEY OF ASBESTOS-CONTAINING MATERIALS (JAN. 2018)
 215 THOMAS STREET, MILTON, ON

LOCATIONS OF ASBESTOS-CONTAINING MATERIALS
FIRST FLOOR PLAN

Drawn By: P.A.L.	Approved By: A.T.N.	Project No: 702170-088
Date: JAN. 2018	Scale: AS SHOWN	Drawing No: 702170-088-1

APPENDIX B

Laboratory Reports – EMSL Canada Inc.





Attn.:
DCS
121 Granton Drive
Unit 11
Richmond Hill, ONT CN L4B3N4

Monday, November 01, 1999

Ref Number: NY997322

POLARIZED LIGHT MICROSCOPY (PLM) - POINT COUNT

Performed by EPA 600/R-93/116 Method*

Project: HDSB 47022 / J.M. DENYS. P.S. MILTON

Sample	Location	Appearance	Sample Treatment	ASBESTOS		NON-ASBESTOS	
				%	Type	%	Fibrous % Non-Fibrous
1	AREA 33 / TEXTURE COAT	Grey Fibrous Heterogeneous	Teased	30.0% Amosite 6.0% Chrysotile	None Detected	64.0% Matrix	
3	AREA 21 / DOMESTIC WATER FITTING INSUL.	Grey Fibrous Heterogeneous	Teased	40.0% Chrysotile	10.0% Cellulose	50.0% Matrix	
4	AREA 21 / HOT WATER RETURN FITTING INSUL.	Grey Fibrous Heterogeneous	Teased	44.0% Chrysotile	15.0% Cellulose	41.0% Matrix	
5	AREA 21 / HOT WATER RETURN PIPE STRAIGHT INSUL.	Grey Fibrous Heterogeneous	Teased	40.0% Chrysotile	20.0% Cellulose	40.0% Matrix	
6	AREA 21 / DOMESTIC WATER PIPE STRAIGHT INSUL.	Black/Silver/Tan Fibrous Heterogeneous	Teased	None Detected	100.0% Cellulose		
7	AREA 21 / HOT WATER SUPPLY PIPE STRAIGHT INSUL.	Grey Fibrous Heterogeneous	Teased	50.0% Chrysotile	10.0% Cellulose	40.0% Matrix	

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

* NY samples analyzed by ELAP 198.1 Method.

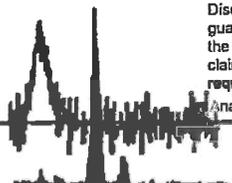
Note: Analytical Sensitivity is <0.5% Asbestos, Trace Asbestos is <0.5%.

Diane Demarinis
Analyst

Approved
Signatory

Disclaimers: PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. Thus negative PLM results cannot be guaranteed. EMSL suggests that samples reported as <1% or none detected be tested with either SEM or TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government. Laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.

Analysis performed by EMSL Manhattan (NVLAP Air and Bulk #101048-9, E-LAP #11506)





Attn.:
DCS
121 Granton Drive
Unit 11
Richmond Hill, ONT CN L4B3N4

Monday, November 01, 1999
Ref Number: NY997322

POLARIZED LIGHT MICROSCOPY (PLM) - POINT COUNT

Performed by EPA 600/R-93/116 Method*

Project: HDSB 47022 / J.M. DENYS. P.S. MILTON

Sample	Location	Appearance	Sample Treatment	ASBESTOS		NON-ASBESTOS	
				%	Type	% Fibrous	% Non-Fibrous
8	AREA 18 / 12X12" CT	Orange/White Fibrous Heterogeneous	Teased	None Detected	90.% Cellulose	10.% Matrix	
9	AREA 18 / 2X4 FT. SCT	Orange/White Fibrous Heterogeneous	Teased	None Detected	95.% Cellulose	5.% Matrix	
10	AREA 18 / 2X4 FT. SCT	White/Grey Fibrous Heterogeneous	Teased	None Detected	50.% Cellulose 20.% Min. Wool	30.% Matrix	
11	AREA 5 / HOT WATER HEAT PIPE STRAIGHT INSUL.	Grey Fibrous Heterogeneous	Teased	36.% Chrysotile	15.% Cellulose	49.% Matrix	
12	AREA 14 / 2X4 FT. SCT	Beige/White Fibrous Heterogeneous	Teased	None Detected	90.% Cellulose	10.% Matrix	
13	AREA 31 / HOT WATER HEAT PIPE STRAIGHT INSUL.	Black/Beige Fibrous Heterogeneous	Teased/Dissolved	None Detected	80.% Cellulose	20.% Matrix	

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

* NY samples analyzed by ELAP 198.1 Method.

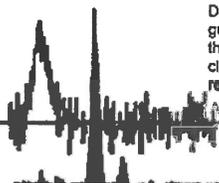
Note: Analytical Sensitivity is <0.5% Asbestos, Trace Asbestos is <0.5%.

Diane Demarinis
Analyst

Approved
Signatory

Disclaimers: PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. This negative PLM results cannot be guaranteed. EMSL suggests that samples reported as <1% or none detected be tested with either SEM or TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government. Laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.

Analysis performed by EMSL Manhattan (NVLAP Air and Bulk #101048-9, E-LAP #11506)





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 551303172
Customer ID: 55DCSL97
Customer PO: 701899
Project ID:

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

Phone: (905) 882-5984
Fax: (905) 882-8962
Collected:
Received: 5/22/2013
Analyzed: 5/25/2013

Proj: DENYES/701899

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

Client Sample ID: 1-A

Lab Sample ID: 551303172-0001

Sample Description: ROOM 13/BLACK PAPER ON WALL BEHIND RADIATOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Black	0.0%	100%	None Detected	
TEM Grav. Reduction	5/25/2013	Black	0.0%	100%	None Detected	

Client Sample ID: 1-B

Lab Sample ID: 551303172-0002

Sample Description: ROOM 13/BLACK PAPER ON WALL BEHIND RADIATOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Black	0%	0%	None Detected	

Client Sample ID: 1-C

Lab Sample ID: 551303172-0003

Sample Description: ROOM 13/BLACK PAPER ON WALL BEHIND RADIATOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Black	0%	0%	None Detected	

Client Sample ID: 2-A

Lab Sample ID: 551303172-0004

Sample Description: ROOM 13/12" VINYL FLOOR TILE-BEIGE WITH DIRECTIONAL BEIGE FLECK (NEW STYLE)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Gray	0.0%	100%	None Detected	
TEM Grav. Reduction	5/25/2013	Gray	0.0%	100%	None Detected	

Client Sample ID: 2-B

Lab Sample ID: 551303172-0005

Sample Description: ROOM 13/12" VINYL FLOOR TILE-BEIGE WITH DIRECTIONAL BEIGE FLECK (NEW STYLE)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Beige	0%	0%	None Detected	

Client Sample ID: 2-C

Lab Sample ID: 551303172-0006

Sample Description: ROOM 13/12" VINYL FLOOR TILE-BEIGE WITH DIRECTIONAL BEIGE FLECK (NEW STYLE)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Beige	0%	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 551303172
Customer ID: 55DCSL97
Customer PO: 701899
Project ID:

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

Client Sample ID: 3-A **Lab Sample ID:** 551303172-0007
Sample Description: ROOM 13/MASTIC ON FLOOR TILE SAMPLE NO. 2-BLACK COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Black	0.0%	99.2%	0.83% Chrysotile	
TEM Grav. Reduction	5/25/2013		Positive Stop (Not Analyzed)			

Client Sample ID: 3-B **Lab Sample ID:** 551303172-0008
Sample Description: ROOM 13/MASTIC ON FLOOR TILE SAMPLE NO. 2-BLACK COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013		Stop Positive (Not Analyzed)			

Client Sample ID: 3-C **Lab Sample ID:** 551303172-0009
Sample Description: ROOM 13/MASTIC ON FLOOR TILE SAMPLE NO. 2-BLACK COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013		Stop Positive (Not Analyzed)			

Client Sample ID: 4-A **Lab Sample ID:** 551303172-0010
Sample Description: ROOM 11/CAULKING ON INTERIOR WINDOW FRAMES-WHITE COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Gray /Various	0.0%	100%	None Detected	
TEM Grav. Reduction	5/25/2013	Gray /Various	0.0%	100%	None Detected	

Client Sample ID: 4-B **Lab Sample ID:** 551303172-0011
Sample Description: ROOM 13/CAULKING ON INTERIOR WINDOW FRAMES-WHITE COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Gray/White	0%	0%	None Detected	

Client Sample ID: 4-C **Lab Sample ID:** 551303172-0012
Sample Description: ROOM 15/CAULKING ON INTERIOR WINDOW FRAMES-WHITE COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Gray/White	0%	0%	None Detected	

Client Sample ID: 5-A **Lab Sample ID:** 551303172-0013
Sample Description: ROOM 11/VINYL BASEBOARD-BLACK COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Black	0.0%	100%	None Detected	
TEM Grav. Reduction	5/25/2013	Black	0.0%	100%	None Detected	

Client Sample ID: 5-B **Lab Sample ID:** 551303172-0014
Sample Description: ROOM 15/VINYL BASEBOARD-BLACK COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Black	0%	0%	None Detected	



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EMSL Canada Order 551303172
Customer ID: 55DCSL97
Customer PO: 701899
Project ID:

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

Client Sample ID: 5-C **Lab Sample ID:** 551303172-0015
Sample Description: ROOM 13/VINYL BASEBOARD-LIGHT BROWN COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Beige	0%	0%	None Detected	

Client Sample ID: 6-A **Lab Sample ID:** 551303172-0016
Sample Description: ROOM 11/MASTIC ON VINYL BASEBOARD-BROWN COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Various /Black	0.0%	100%	None Detected	
TEM Grav. Reduction	5/25/2013	Various /Black	0.0%	100%	None Detected	

Client Sample ID: 6-B **Lab Sample ID:** 551303172-0017
Sample Description: ROOM 15/MASTIC ON VINYL BASEBOARD-BROWN COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Brown	0%	0%	None Detected	

Client Sample ID: 6-C **Lab Sample ID:** 551303172-0018
Sample Description: ROOM 13/MASTIC ON VINYL BASEBOARD-BROWN COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Brown	0%	0%	None Detected	

Client Sample ID: 7-A **Lab Sample ID:** 551303172-0019
Sample Description: ROOM 13/JOINT COMPOUND ON DRYWALL WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	White	0.0%	100%	None Detected	

Client Sample ID: 7-B **Lab Sample ID:** 551303172-0020
Sample Description: ROOM 13A/JOINT COMPOUND ON DRYWALL WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	White	0.0%	100%	None Detected	

Client Sample ID: 7-C **Lab Sample ID:** 551303172-0021
Sample Description: ROOM 11/JOINT COMPOUND ON DRYWALL WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	White	0.0%	100%	None Detected	

Client Sample ID: 7-D **Lab Sample ID:** 551303172-0022
Sample Description: ROOM 15/JOINT COMPOUND ON DRYWALL WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	White	0.0%	100%	None Detected	



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Customer ID: 55DCSL97
Customer PO: 701899
Project ID:

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

Client Sample ID: 7-E **Lab Sample ID:** 551303172-0023
Sample Description: ROOM 36/JOINT COMPOUND ON DRYWALL WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/25/2013	Gray	0.0%	100%	None Detected	

Client Sample ID: 8-A **Lab Sample ID:** 551303172-0024
Sample Description: ROOM 11/PLASTER ON BULKHEAD-TOP COAT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	White	0.0%	100%	None Detected	

Client Sample ID: 8-B **Lab Sample ID:** 551303172-0025
Sample Description: ROOM 11/PLASTER ON BULKHEAD-TOP COAT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	White	0.0%	100%	None Detected	

Client Sample ID: 8-C **Lab Sample ID:** 551303172-0026
Sample Description: ROOM 15/PLASTER ON WALL-TOP COAT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/25/2013	White	0.0%	100%	None Detected	

Client Sample ID: 9-A **Lab Sample ID:** 551303172-0027
Sample Description: ROOM 11/PLASTER ON BULKHEAD-SCRATCH COAT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	White	0.0%	100%	None Detected	

Client Sample ID: 9-B **Lab Sample ID:** 551303172-0028
Sample Description: ROOM 11/PLASTER ON BULKHEAD-SCRATCH COAT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Gray /White	0.0%	100%	None Detected	

Client Sample ID: 9-C **Lab Sample ID:** 551303172-0029
Sample Description: ROOM 15/PLASTER ON WALL-SCRATCH COAT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/25/2013	Gray /White	0.0%	100%	None Detected	

Client Sample ID: 10-A **Lab Sample ID:** 551303172-0030
Sample Description: ROOM 11/9" VINYL FLOOR TILE-MAUVE-BROWN COLOURED WITH WIDE WHITE STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Various /Black	0.0%	97.1%	2.9% Chrysotile	
TEM Grav. Reduction	5/25/2013		Positive Stop (Not Analyzed)			



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Customer PO: 701899
Project ID:

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

Client Sample ID: 10-B **Lab Sample ID:** 551303172-0031

Sample Description: ROOM 11/9" VINYL FLOOR TILE-MAUVE-BROWN COLOURED WITH WIDE WHITE STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013					Stop Positive (Not Analyzed)

Client Sample ID: 10-C **Lab Sample ID:** 551303172-0032

Sample Description: ROOM 11/9" VINYL FLOOR TILE-MAUVE-BROWN COLOURED WITH WIDE WHITE STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013					Stop Positive (Not Analyzed)

Client Sample ID: 11-A **Lab Sample ID:** 551303172-0033

Sample Description: ROOM 11/MASTIC ON 9" FLOOR TILE SAMPLE NO. 10-BLACK COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Black	0.0%	98.9%	1.1% Chrysotile	
TEM Grav. Reduction	5/25/2013					Positive Stop (Not Analyzed)

Client Sample ID: 11-B **Lab Sample ID:** 551303172-0034

Sample Description: ROOM 15/MASTIC ON 9" FLOOR TILE SAMPLE NO. 13-BLACK COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013					Stop Positive (Not Analyzed)

Client Sample ID: 11-C **Lab Sample ID:** 551303172-0035

Sample Description: ROOM 16/MASTIC ON 9" FLOOR TILE SAMPLE NO. 15-BLACK COLOURED

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013					Stop Positive (Not Analyzed)

Client Sample ID: 12-A **Lab Sample ID:** 551303172-0036

Sample Description: ROOM 13/MORTAR IN CONCRETE BLOCK WALLS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Black	0.0%	100%	None Detected	
TEM Grav. Reduction	5/25/2013	Black	0.0%	100%	None Detected	

Client Sample ID: 12-B **Lab Sample ID:** 551303172-0037

Sample Description: ROOM 13/MORTAR IN CONCRETE BLOCK WALLS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Gray	0%	0%	None Detected	

Client Sample ID: 12-C **Lab Sample ID:** 551303172-0038

Sample Description: ROOM 13/MORTAR IN CONCRETE BLOCK WALLS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Gray	0%	0%	None Detected	



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Customer ID: 55DCSL97
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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: 13-A **Lab Sample ID:** 551303172-0039

Sample Description: ROOM 15/9" VINYL FLOOR TILE-LIGHT BLUE COLOURED WITH WIDE DIRECTIONAL WHITE STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Blue	0.0%	97.9%	2.1% Chrysotile	
TEM Grav. Reduction	5/25/2013		Positive Stop (Not Analyzed)			

Client Sample ID: 13-B **Lab Sample ID:** 551303172-0040

Sample Description: ROOM 15/9" VINYL FLOOR TILE-LIGHT BLUE COLOURED WITH WIDE DIRECTIONAL WHITE STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013		Stop Positive (Not Analyzed)			

Client Sample ID: 13-C **Lab Sample ID:** 551303172-0041

Sample Description: ROOM 15/9" VINYL FLOOR TILE-LIGHT BLUE COLOURED WITH WIDE DIRECTIONAL WHITE STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013		Stop Positive (Not Analyzed)			

Client Sample ID: 14-A **Lab Sample ID:** 551303172-0042

Sample Description: ROOM 16/9" VINYL FLOOR TILE-CHOCOLATE-BROWN COLOURED WITH DIRECTIONAL WHITE STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	5/24/2013	Brown	0.0%	97.5%	2.5% Chrysotile	
TEM Grav. Reduction	5/25/2013		Positive Stop (Not Analyzed)			

Client Sample ID: 14-B **Lab Sample ID:** 551303172-0043

Sample Description: ROOM 16/9" VINYL FLOOR TILE-CHOCOLATE-BROWN COLOURED WITH DIRECTIONAL WHITE STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013		Stop Positive (Not Analyzed)			

Client Sample ID: 14-C **Lab Sample ID:** 551303172-0044

Sample Description: ROOM 16/9" VINYL FLOOR TILE-CHOCOLATE-BROWN COLOURED WITH DIRECTIONAL WHITE STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013		Stop Positive (Not Analyzed)			

Client Sample ID: 15-A **Lab Sample ID:** 551303172-0045

Sample Description: CORRIDOR 32/THERMAL INSULATION ON PIPE STRAIGHTS ("ANTI-SWEAT") BLACK PAPER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
TEM Grav. Reduction	5/25/2013	Brown /Black	0.0%	100%	None Detected	

Client Sample ID: 15-B **Lab Sample ID:** 551303172-0046

Sample Description: CORRIDOR 31/THERMAL INSULATION ON PIPE STRAIGHTS ("ANTI-SWEAT") BLACK PAPER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/25/2013	Brown/Black	0%	0%	None Detected	



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

Client Sample ID:	15-C	Lab Sample ID:	551303172-0047
Sample Description:	CORRIDOR 31/THERMAL INSULATION ON PIPE STRAIGHTS ("ANTI-SWEAT") BLACK PAPER		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous
PLM	5/25/2013	Brown/Black	0% 0%
			Asbestos
			None Detected

Client Sample ID:	16-A	Lab Sample ID:	551303172-0048
Sample Description:	CORRIDOR 32/2' X 2' CEILING TILE-RANDOM FISSURE WITH A WHITE COLOURED BACK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous
PLM	5/24/2013	Gray/White	0% 0%
			Asbestos
			None Detected

Client Sample ID:	16-B	Lab Sample ID:	551303172-0049
Sample Description:	CORRIDOR 31/2' X 2' CEILING TILE-RANDOM FISSURE WITH A WHITE COLOURED BACK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous
PLM	5/24/2013	Gray/White	0% 0%
			Asbestos
			None Detected

Client Sample ID:	16-C	Lab Sample ID:	551303172-0050
Sample Description:	CORRIDOR 31/2' X 2' CEILING TILE-RANDOM FISSURE WITH A WHITE COLOURED BACK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous
PLM	5/25/2013	Gray/White	0% 0%
			Asbestos
			None Detected

Client Sample ID:	17-A	Lab Sample ID:	551303172-0051
Sample Description:	CORRIDOR 18/2' X 4' CEILING TILE-RANDOM FISSURE WITH A WHITE COLOURED BACK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous
PLM	5/24/2013	Gray/White	0% 0%
			Asbestos
			None Detected

Client Sample ID:	17-B	Lab Sample ID:	551303172-0052
Sample Description:	CORRIDOR 18/2' X 4' CEILING TILE-RANDOM FISSURE WITH A WHITE COLOURED BACK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous
PLM	5/24/2013	Gray/White	0% 0%
			Asbestos
			None Detected

Client Sample ID:	17-C	Lab Sample ID:	551303172-0053
Sample Description:	CORRIDOR 18/2' X 4' CEILING TILE-RANDOM FISSURE WITH A WHITE COLOURED BACK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous
PLM	5/25/2013	Tan/White	0% 0%
			Asbestos
			None Detected

Client Sample ID:	18-A	Lab Sample ID:	551303172-0054
Sample Description:	CORRIDOR 18/2' X 4' CEILING TILE-FISSURE ON 2'		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous
PLM	5/24/2013	Gray/White	0% 0%
			Asbestos
			None Detected



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Customer PO: 701899
Project ID:

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

Client Sample ID: 18-B **Lab Sample ID:** 551303172-0055
Sample Description: CORRIDOR 18/2' X 4' CEILING TILE-FISSURE ON 2'

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/24/2013	Gray/White	0%	0%	None Detected	

Client Sample ID: 18-C **Lab Sample ID:** 551303172-0056
Sample Description: CORRIDOR 18/2' X 4' CEILING TILE-FISSURE ON 2'

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/25/2013	Gray/White	0%	0%	None Detected	

Client Sample ID: 19-A **Lab Sample ID:** 551303172-0057
Sample Description: CORRIDOR 18/12" X 12" CEILING TILE- PIN HOLE STYLE-CELLULOSE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/25/2013	Brown	0%	0%	None Detected	

Client Sample ID: 19-B **Lab Sample ID:** 551303172-0058
Sample Description: CORRIDOR 18/12" X 12" CEILING TILE- PIN HOLE STYLE-CELLULOSE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/25/2013	Brown	0%	0%	None Detected	

Client Sample ID: 19-C **Lab Sample ID:** 551303172-0059
Sample Description: CORRIDOR 18/12" X 12" CEILING TILE- PIN HOLE STYLE-CELLULOSE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/25/2013	Brown/White	0%	0%	None Detected	

Client Sample ID: 20-A **Lab Sample ID:** 551303172-0060
Sample Description: ROOM 36/2' X 4' CEILING TILE-FISSURE ON 4'-CELLULOSE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/25/2013	Brown/White	0%	0%	None Detected	

Client Sample ID: 20-B **Lab Sample ID:** 551303172-0061
Sample Description: ROOM 36/2' X 4' CEILING TILE-FISSURE ON 4'-CELLULOSE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/25/2013		0%	0%	None Detected	

Client Sample ID: 20-C **Lab Sample ID:** 551303172-0062
Sample Description: ROOM 36/2' X 4' CEILING TILE-FISSURE ON 4'-CELLULOSE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	5/25/2013	Brown/White	85%	15%	None Detected	



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Project ID:

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

Analyst(s)

Alice Feng	PLM	(7)
	PLM Grav. Reduction	(3)
	TEM Grav. Reduction	(7)
Jon Delos Santos	PLM	(22)
	PLM Grav. Reduction	(19)

Kevin Pang
or other Approved Signatory

Any questions please contact Kevin Pang.

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP of any agency of the U.S. Government.

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

Initial report from: 05/25/2013 15:52:03



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EMSL Canada Order 551306276
Customer ID: 55DCSL97
Customer PO: 701899-000
Project ID:

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

Phone: (905) 882-5984
Fax: (905) 882-8962
Collected:
Received: 9/11/2013
Analyzed: 9/16/2013

Proj: J. M DENYES P.S

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

Client Sample ID: 1-A

Lab Sample ID: 551306276-0001

Sample Description: ROOM: 10/9" X 9" VINYL FLOOR TILE BLUE/GREEN/BLACK IN COLOUR WITH WHITE OR BLACK STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	Green	0.0%	98.5%	1.5% Chrysotile	
TEM Grav. Reduction	9/14/2013		Positive Stop (Not Analyzed)			

Client Sample ID: 1-B

Lab Sample ID: 551306276-0002

Sample Description: ROOM: 9/9" X 9" VINYL FLOOR TILE BLUE/GREEN/BLACK IN COLOUR WITH WHITE OR BLACK STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/14/2013		Stop Positive (Not Analyzed)			

Client Sample ID: 1-C

Lab Sample ID: 551306276-0003

Sample Description: ROOM: 9/9" X 9" VINYL FLOOR TILE BLUE/GREEN/BLACK IN COLOUR WITH WHITE OR BLACK STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/14/2013		Stop Positive (Not Analyzed)			

Client Sample ID: 2-A

Lab Sample ID: 551306276-0004

Sample Description: ROOM: 10/VINYL SHEETING-RED IN COLOUR ON COUNTER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	Red	0.0%	100%	None Detected	
TEM Grav. Reduction	9/16/2013	Red	0.0%	100%	None Detected	

Client Sample ID: 2-B

Lab Sample ID: 551306276-0005

Sample Description: ROOM: 9/VINYL SHEETING-RED IN COLOUR ON COUNTER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/14/2013	Red	0%	100%	None Detected	

Client Sample ID: 2-C

Lab Sample ID: 551306276-0006

Sample Description: ROOM: 8/VINYL SHEETING-RED IN COLOUR ON COUNTER

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/14/2013	Red	0%	100%	None Detected	



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EMSL Canada Order 551306276
Customer ID: 55DCSL97
Customer PO: 701899-000
Project ID:

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

Client Sample ID:	3-A					Lab Sample ID:	551306276-0007
Sample Description:	ROOM: 7/12" X 12" VINYL FLOOR TILE-PINK IN COLOUR WITH BROWN AND WHITE FLECK						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment	
			Fibrous	Non-Fibrous			
PLM Grav. Reduction	9/14/2013	Pink	0.0%	100%	None Detected		
TEM Grav. Reduction	9/16/2013	Pink	0.0%	100%	None Detected		

Client Sample ID:	3-B					Lab Sample ID:	551306276-0008
Sample Description:	ROOM: 7/12" X 12" VINYL FLOOR TILE-PINK IN COLOUR WITH BROWN AND WHITE FLECK						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment	
			Fibrous	Non-Fibrous			
PLM	9/14/2013	Pink	0%	100%	None Detected		

Client Sample ID:	3-C					Lab Sample ID:	551306276-0009
Sample Description:	ROOM: 7/12" X 12" VINYL FLOOR TILE-PINK IN COLOUR WITH BROWN AND WHITE FLECK						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment	
			Fibrous	Non-Fibrous			
PLM	9/14/2013	Pink	0%	100%	None Detected		

Client Sample ID:	4-A					Lab Sample ID:	551306276-0010
Sample Description:	ROOM: 8/12" X 12" VINYL FLOOR TILE-PINK WITH LIGHT AND DARK FLECK (NEW LOOK)						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment	
			Fibrous	Non-Fibrous			
PLM Grav. Reduction	9/14/2013	Beige	0.0%	100%	None Detected		
TEM Grav. Reduction	9/16/2013	Beige	0.0%	100%	None Detected		

Client Sample ID:	4-B					Lab Sample ID:	551306276-0011
Sample Description:	ROOM: 1/12" X 12" VINYL FLOOR TILE-PINK WITH LIGHT AND DARK FLECK (NEW LOOK)						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment	
			Fibrous	Non-Fibrous			
PLM	9/14/2013	Pink	0%	100%	None Detected		

Client Sample ID:	4-C					Lab Sample ID:	551306276-0012
Sample Description:	ROOM: 1/12" X 12" VINYL FLOOR TILE-PINK WITH LIGHT AND DARK FLECK (NEW LOOK)						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment	
			Fibrous	Non-Fibrous			
PLM	9/14/2013	Pink	0%	100%	None Detected		

Client Sample ID:	5-A					Lab Sample ID:	551306276-0013
Sample Description:	ROOM: 6/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH BROWN STREAKS						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment	
			Fibrous	Non-Fibrous			
PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected		
TEM Grav. Reduction	9/16/2013	White	0.0%	100%	<0.69% Chrysotile	Sample reanalyzed via EPA 600/R-93/116 Section 2.5.5.2 (TEM % by mass). Final result of 0.34% chrysotile present in sample.	



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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: 5-B **Lab Sample ID:** 551306276-0014
Sample Description: ROOM: 5/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH BROWN STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/16/2013	Gray/White	0%	100%	None Detected	

Client Sample ID: 5-C **Lab Sample ID:** 551306276-0015
Sample Description: ROOM: 2/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH BROWN STREAKS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/16/2013	Gray/White	0%	100%	None Detected	

Client Sample ID: 6-A **Lab Sample ID:** 551306276-0016
Sample Description: ROOM: 3/12" X 12" VINYL FLOOR TILE-BROWN IN COLOUR WITH LIGHT AND DARK FLECK

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	Brown	0.0%	100%	None Detected	
TEM Grav. Reduction	9/16/2013	Brown	0.0%	100%	None Detected	

Client Sample ID: 6-B **Lab Sample ID:** 551306276-0017
Sample Description: ROOM: 4/12" X 12" VINYL FLOOR TILE-BROWN IN COLOUR WITH LIGHT AND DARK FLECK

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/16/2013	Brown	0%	100%	None Detected	

Client Sample ID: 6-C **Lab Sample ID:** 551306276-0018
Sample Description: ROOM: 4/12" X 12" VINYL FLOOR TILE-BROWN IN COLOUR WITH LIGHT AND DARK FLECK

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/16/2013	Brown	0%	100%	None Detected	

Client Sample ID: 7-A **Lab Sample ID:** 551306276-0019
Sample Description: ROOM: 2/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH GREY AND WHITE FLECK (NEW LOOK)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected	
TEM Grav. Reduction	9/16/2013	White	0.0%	100%	None Detected	

Client Sample ID: 7-B **Lab Sample ID:** 551306276-0020
Sample Description: ROOM: 2/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH GREY AND WHITE FLECK (NEW LOOK)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/16/2013	White	0%	100%	None Detected	

Client Sample ID: 7-C **Lab Sample ID:** 551306276-0021
Sample Description: ROOM: 2/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH GREY AND WHITE FLECK (NEW LOOK)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/16/2013	White	0%	100%	None Detected	



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Project ID:

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Client Sample ID:	8-A					Lab Sample ID:	551306276-0022
Sample Description:	ROOM: 36A/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH LIGHT AND DARK BROWN FLECK						
	TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
				Fibrous	Non-Fibrous		
	PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected	
	TEM Grav. Reduction	9/16/2013	White	0.0%	100%	None Detected	

Client Sample ID:	8-B					Lab Sample ID:	551306276-0023
Sample Description:	ROOM: 34/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH LIGHT AND DARK BROWN FLECK						
	TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
				Fibrous	Non-Fibrous		
	PLM	9/16/2013	Gray	0%	100%	None Detected	

Client Sample ID:	8-C					Lab Sample ID:	551306276-0024
Sample Description:	ROOM: 26/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH LIGHT AND DARK BROWN FLECK						
	TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
				Fibrous	Non-Fibrous		
	PLM	9/16/2013	Gray	0%	100%	None Detected	

Client Sample ID:	9-A					Lab Sample ID:	551306276-0025
Sample Description:	ROOM: 21A/12" X 12" VINYL FLOOR TILE-BLUE/TEAL IN COLOUR WITH LIGHT AND DARK FLECK						
	TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
				Fibrous	Non-Fibrous		
	PLM Grav. Reduction	9/14/2013	Blue	0.0%	100%	None Detected	
	TEM Grav. Reduction	9/16/2013	Blue	0.0%	100%	None Detected	

Client Sample ID:	9-B					Lab Sample ID:	551306276-0026
Sample Description:	ROOM: 22/12" X 12" VINYL FLOOR TILE-BLUE/TEAL IN COLOUR WITH LIGHT AND DARK FLECK						
	TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
				Fibrous	Non-Fibrous		
	PLM	9/16/2013	Blue	0%	100%	None Detected	

Client Sample ID:	9-C					Lab Sample ID:	551306276-0027
Sample Description:	ROOM: 22/12" X 12" VINYL FLOOR TILE-BLUE/TEAL IN COLOUR WITH LIGHT AND DARK FLECK						
	TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
				Fibrous	Non-Fibrous		
	PLM	9/16/2013	Blue	0%	100%	None Detected	

Client Sample ID:	10-A					Lab Sample ID:	551306276-0028
Sample Description:	ROOM: 43/9" X 9" VINYL FLOOR TILE-BEIGE IN COLOUR WITH BROWN AND WHITE STREAK						
	TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
				Fibrous	Non-Fibrous		
	PLM Grav. Reduction	9/14/2013	Beige	0.0%	98.0%	2.0% Chrysotile	
	TEM Grav. Reduction	9/14/2013		Positive Stop (Not Analyzed)			

Client Sample ID:	10-B					Lab Sample ID:	551306276-0029
Sample Description:	ROOM: 43/9" X 9" VINYL FLOOR TILE-BEIGE IN COLOUR WITH BROWN AND WHITE STREAK						
	TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
				Fibrous	Non-Fibrous		
	PLM	9/14/2013		Stop Positive (Not Analyzed)			



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Client Sample ID:	10-C	Lab Sample ID:	551306276-0030
Sample Description:	ROOM: 43/9" X 9" VINYL FLOOR TILE-BEIGE IN COLOUR WITH BROWN AND WHITE STREAK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous Asbestos Comment
PLM	9/14/2013		Stop Positive (Not Analyzed)

Client Sample ID:	11-A	Lab Sample ID:	551306276-0031
Sample Description:	ROOM: 29B/12" X 12" VINYL FLOOR TILE-OLIVE IN COLOUR WITH WHITE AND BROWN STREAK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous Asbestos Comment
PLM Grav. Reduction	9/14/2013	Tan	0.0% 99.0% 1.0% Chrysotile
TEM Grav. Reduction	9/14/2013		Positive Stop (Not Analyzed)

Client Sample ID:	11-B	Lab Sample ID:	551306276-0032
Sample Description:	ROOM: 28/12" X 12" VINYL FLOOR TILE-OLIVE IN COLOUR WITH WHITE AND BROWN STREAK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous Asbestos Comment
PLM	9/14/2013		Stop Positive (Not Analyzed)

Client Sample ID:	11-C	Lab Sample ID:	551306276-0033
Sample Description:	ROOM: 28/12" X 12" VINYL FLOOR TILE-OLIVE IN COLOUR WITH WHITE AND BROWN STREAK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous Asbestos Comment
PLM	9/14/2013		Stop Positive (Not Analyzed)

Client Sample ID:	12-A	Lab Sample ID:	551306276-0034
Sample Description:	ROOM: 29A/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH BLACK STREAK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous Asbestos Comment
PLM Grav. Reduction	9/14/2013	White	0.0% 100% None Detected
TEM Grav. Reduction	9/16/2013	White	0.0% 100% None Detected

Client Sample ID:	12-B	Lab Sample ID:	551306276-0035
Sample Description:	ROOM: 29A/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH BLACK STREAK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous Asbestos Comment
PLM	9/16/2013	White	0% 100% None Detected

Client Sample ID:	12-C	Lab Sample ID:	551306276-0036
Sample Description:	ROOM: 29A/12" X 12" VINYL FLOOR TILE-WHITE IN COLOUR WITH BLACK STREAK		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous Asbestos Comment
PLM	9/16/2013	White	0% 100% None Detected

Client Sample ID:	13-A	Lab Sample ID:	551306276-0037
Sample Description:	ROOM: 23/12" X 12" VINYL FLOOR TILE-OLIVE IN COLOUR		
TEST	Analyzed Date	Color	Non-Asbestos Fibrous Non-Fibrous Asbestos Comment
PLM Grav. Reduction	9/14/2013	Green	0.0% 98.8% 1.2% Chrysotile
TEM Grav. Reduction	9/14/2013		Positive Stop (Not Analyzed)



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

Client Sample ID: 13-B **Lab Sample ID:** 551306276-0038
Sample Description: ROOM: 23/12" X 12" VINYL FLOOR TILE-OLIVE IN COLOUR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/14/2013					Stop Positive (Not Analyzed)

Client Sample ID: 13-C **Lab Sample ID:** 551306276-0039
Sample Description: ROOM: 23/12" X 12" VINYL FLOOR TILE-OLIVE IN COLOUR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/14/2013					Stop Positive (Not Analyzed)

Client Sample ID: 14-A **Lab Sample ID:** 551306276-0040
Sample Description: ROOM: 39/12" X 12" VINYL FLOOR TILE-PALE YELLOW IN COLOUR WITH BLACK DOTS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	Beige	0.0%	100%	None Detected	
TEM Grav. Reduction	9/16/2013	Beige	0.0%	100%	None Detected	

Client Sample ID: 14-B **Lab Sample ID:** 551306276-0041
Sample Description: ROOM: 39/12" X 12" VINYL FLOOR TILE-PALE YELLOW IN COLOUR WITH BLACK DOTS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/16/2013	Tan	0%	100%	None Detected	

Client Sample ID: 14-C **Lab Sample ID:** 551306276-0042
Sample Description: ROOM: 39/12" X 12" VINYL FLOOR TILE-PALE YELLOW IN COLOUR WITH BLACK DOTS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/16/2013	Tan	0%	100%	None Detected	

Client Sample ID: 15-A **Lab Sample ID:** 551306276-0043
Sample Description: ROOM: 10/DRYWALL JOINT COMPOUND-WHITE IN COLOUR FROM BULKHEAD

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected	

Client Sample ID: 15-B **Lab Sample ID:** 551306276-0044
Sample Description: ROOM: 9/DRYWALL JOINT COMPOUND-WHITE IN COLOUR FROM BULKHEAD

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected	

Client Sample ID: 15-C **Lab Sample ID:** 551306276-0045
Sample Description: ROOM: 8/DRYWALL JOINT COMPOUND-WHITE IN COLOUR FROM BULKHEAD

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected	



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

Client Sample ID: 15-D **Lab Sample ID:** 551306276-0046
Sample Description: ROOM: 6/DRYWALL JOINT COMPOUND-WHITE IN COLOUR FROM WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/16/2013	White	0.0%	100%	None Detected	

Client Sample ID: 15-E **Lab Sample ID:** 551306276-0047
Sample Description: ROOM: 2/DRYWALL JOINT COMPOUND-WHITE IN COLOUR FROM WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/16/2013	White	0.0%	100%	None Detected	

Client Sample ID: 16-A **Lab Sample ID:** 551306276-0048
Sample Description: ROOM: 10/PLASTER-WHITE IN COLOUR SMOOTH TOP COAT FROM WALL (1ST ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected	

Client Sample ID: 16-B **Lab Sample ID:** 551306276-0049
Sample Description: ROOM: 7/PLASTER-WHITE IN COLOUR SMOOTH TOP COAT FROM WALL (1ST ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected	

Client Sample ID: 16-C **Lab Sample ID:** 551306276-0050
Sample Description: ROOM: 8/PLASTER-WHITE IN COLOUR SMOOTH TOP COAT FROM WALL (1ST ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected	

Client Sample ID: 16-D **Lab Sample ID:** 551306276-0051
Sample Description: ROOM: 5/PLASTER-WHITE IN COLOUR SMOOTH TOP COAT FROM WALL (1ST ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/16/2013	White	0.0%	100%	None Detected	

Client Sample ID: 16-E **Lab Sample ID:** 551306276-0052
Sample Description: ROOM: 4/PLASTER-WHITE IN COLOUR SMOOTH TOP COAT FROM WALL (1ST ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/16/2013	White	0.0%	100%	None Detected	

Client Sample ID: 17-A **Lab Sample ID:** 551306276-0053
Sample Description: ROOM: 10/PLASTER-GREY IN COLOUR SCRATCH COAT FROM WALL (1ST ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	Gray	0.0%	100%	None Detected	



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Client Sample ID: 17-B **Lab Sample ID:** 551306276-0054
Sample Description: ROOM: 7/PLASTER-GREY IN COLOUR SCRATCH COAT FROM WALL (1ST ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	Gray	0.0%	100%	None Detected	

Client Sample ID: 17-C **Lab Sample ID:** 551306276-0055
Sample Description: ROOM: 8/PLASTER-GREY IN COLOUR SCRATCH COAT FROM WALL (1ST ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	Gray	0.0%	100%	None Detected	

Client Sample ID: 17-D **Lab Sample ID:** 551306276-0056
Sample Description: ROOM: 5/PLASTER-GREY IN COLOUR SCRATCH COAT FROM WALL (1ST ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/16/2013	Gray	0.0%	100%	None Detected	

Client Sample ID: 17-E **Lab Sample ID:** 551306276-0057
Sample Description: ROOM: 4/PLASTER-GREY IN COLOUR SCRATCH COAT FROM WALL (1ST ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/16/2013	Gray	0.0%	100%	None Detected	

Client Sample ID: 18-A **Lab Sample ID:** 551306276-0058
Sample Description: ROOM: 20/PLASTER-WHITE IN COLOUR SMOOTH TOP COAT FROM WALL (2ND ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected	

Client Sample ID: 18-B **Lab Sample ID:** 551306276-0059
Sample Description: ROOM: 20/PLASTER-WHITE IN COLOUR SMOOTH TOP COAT FROM WALL (2ND ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	White	0.0%	100%	None Detected	

Client Sample ID: 18-C **Lab Sample ID:** 551306276-0060
Sample Description: ROOM: 20/PLASTER-WHITE IN COLOUR SMOOTH TOP COAT FROM WALL (2ND ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/16/2013	White	0.0%	100%	None Detected	

Client Sample ID: 19-A **Lab Sample ID:** 551306276-0061
Sample Description: ROOM: 20/PLASTER-GREY IN COLOUR SCRATCH COAT FROM WALL (2ND ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	Gray	0.0%	100%	None Detected	



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EMSL Canada Order 551306276
Customer ID: 55DCSL97
Customer PO: 701899-000
Project ID:

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

Client Sample ID: 19-B **Lab Sample ID:** 551306276-0062
Sample Description: ROOM: 20/PLASTER-GREY IN COLOUR SCRATCH COAT FROM WALL (2ND ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	Gray	0.0%	100%	None Detected	

Client Sample ID: 19-C **Lab Sample ID:** 551306276-0063
Sample Description: ROOM: 20/PLASTER-GREY IN COLOUR SCRATCH COAT FROM WALL (2ND ERA)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/16/2013	Gray	0.0%	100%	None Detected	

Client Sample ID: 20 **Lab Sample ID:** 551306276-0064
Sample Description: ROOM: 8/PIPE FITTING INSULATION-GREY IN COLOUR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/14/2013	Gray	0%	25%	75% Chrysotile	

Client Sample ID: 21 **Lab Sample ID:** 551306276-0065
Sample Description: ROOM: 8/PIPE STRAIGHT INSULATION-WHITE IN COLOUR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/14/2013	White	0%	15%	85% Chrysotile	

Client Sample ID: 22 **Lab Sample ID:** 551306276-0066
Sample Description: EXTERIOR/CEMENT BOARD-GREY IN COLOUR FROM EXTERIOR SOFFIT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	9/14/2013	Gray	0.0%	91.9%	8.1% Chrysotile	

Client Sample ID: 23-A **Lab Sample ID:** 551306276-0067
Sample Description: ROOM: 10/12" X 12" CEILING TILE UNIFORM HOLES (CELLULOSE) FROM WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/14/2013	Brown/White	85%	15%	None Detected	

Client Sample ID: 23-B **Lab Sample ID:** 551306276-0068
Sample Description: ROOM: 8/12" X 12" CEILING TILE UNIFORM HOLES (CELLULOSE) FROM WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/14/2013	Brown/White	75%	25%	None Detected	

Client Sample ID: 23-C **Lab Sample ID:** 551306276-0069
Sample Description: ROOM: 4/12" X 12" CEILING TILE UNIFORM HOLES (CELLULOSE) FROM WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	9/16/2013	Tan/White	70%	30%	None Detected	



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

Analyst(s)

Alice Feng	PLM	(10)
	PLM Grav. Reduction	(28)
Arabee Sathiasaelan	PLM	(15)
Matthew Davis	PLM Grav. Reduction	(8)
	TEM Grav. Reduction	(10)

Kevin Pang
or other Approved Signatory

Any questions please contact Kevin Pang.

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

Report amended: 02/03/2014 21:10:56 Replaces initial report from: 02/03/2014 21:10:56 Reason Code: DataEntry-Other (see report comment)



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EMSL Canada Order 551702090
Customer ID: 55DCSL97
Customer PO: 702170-088
Project ID:

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Collected:
Received: 2/28/2017
Analyzed: 3/03/2017

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

Client Sample ID: 1A **Lab Sample ID:** 551702090-0001

Sample Description: Room 37/Caulking -grey in colour and brittle from interior door frame

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	30%	70%	None Detected	

Client Sample ID: 1B **Lab Sample ID:** 551702090-0002

Sample Description: Room 40/Caulking -grey in colour and brittle from interior door frame

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Brown	0%	97%	3% Chrysotile	

Client Sample ID: 1C **Lab Sample ID:** 551702090-0003

Sample Description: Room 40/Caulking -grey in colour and brittle from interior door frame

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017				Positive Stop (Not Analyzed)	

Client Sample ID: 2A **Lab Sample ID:** 551702090-0004

Sample Description: Room 17/Caulking- in colour from interior door frame

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	White	0%	100%	None Detected	

Client Sample ID: 2B **Lab Sample ID:** 551702090-0005

Sample Description: Room 17/Caulking- in colour from interior door frame

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Tan/White	0%	99%	1% Chrysotile	

Client Sample ID: 2C **Lab Sample ID:** 551702090-0006

Sample Description: Room 17B/Caulking- in colour from interior door frame

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017				Positive Stop (Not Analyzed)	

Client Sample ID: 3A **Lab Sample ID:** 551702090-0007

Sample Description: Room 37/Drywall joint compound -white in colour from wall (Era 1)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	White	0%	100%	None Detected	



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Customer PO: 702170-088
Project ID:

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

Client Sample ID: 3B **Lab Sample ID:** 551702090-0008

Sample Description: Room 40/Drywall joint compound -white in colour from wall (Era 1)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	White	0%	100%	None Detected	

Client Sample ID: 3C **Lab Sample ID:** 551702090-0009

Sample Description: Room 40/Drywall joint compound -white in colour from wall (Era 1)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	White	5%	95%	None Detected	

Client Sample ID: 4A **Lab Sample ID:** 551702090-0010

Sample Description: Room 17/Drywall joint compound -white in colour from wall (Era 2)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	White	5%	95%	None Detected	

Client Sample ID: 4B **Lab Sample ID:** 551702090-0011

Sample Description: Room 17/Drywall joint compound -white in colour from wall (Era 2)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	White	5%	95%	None Detected	

Client Sample ID: 4C **Lab Sample ID:** 551702090-0012

Sample Description: Room 17B/Drywall joint compound -white in colour from wall (Era 2)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	White	10%	90%	None Detected	

Client Sample ID: 5A **Lab Sample ID:** 551702090-0013

Sample Description: Room 17/Textured paint- cream/rust in colour from concrete block wall

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Beige	0%	100%	None Detected	

Client Sample ID: 5B **Lab Sample ID:** 551702090-0014

Sample Description: Room 17/Textured paint- cream/rust in colour from concrete block wall

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Beige	0%	100%	None Detected	

Client Sample ID: 5C **Lab Sample ID:** 551702090-0015

Sample Description: Room 17B/Textured paint- cream/rust in colour from concrete block wall

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Beige	0%	100%	None Detected	



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

Client Sample ID: 6A **Lab Sample ID:** 551702090-0016
Sample Description: Room 37/Mortar- grey in colour from concrete block wall (Era 1)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	0%	100%	None Detected	

Client Sample ID: 6B **Lab Sample ID:** 551702090-0017
Sample Description: Room 40/Mortar- grey in colour from concrete block wall (Era 1)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	0%	100%	None Detected	

Client Sample ID: 6C **Lab Sample ID:** 551702090-0018
Sample Description: Room 40/Mortar- grey in colour from concrete block wall (Era 1)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	0%	100%	None Detected	

Client Sample ID: 7A **Lab Sample ID:** 551702090-0019
Sample Description: Room 37/Mortar- grey in colour from glazed concrete block wall (Era 1)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	0%	100%	None Detected	

Client Sample ID: 7B **Lab Sample ID:** 551702090-0020
Sample Description: Room 40/Mortar- grey in colour from glazed concrete block wall (Era 1)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	0%	100%	None Detected	

Client Sample ID: 7C **Lab Sample ID:** 551702090-0021
Sample Description: Room 40/Mortar- grey in colour from glazed concrete block wall (Era 1)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	0%	100%	None Detected	

Client Sample ID: 8A **Lab Sample ID:** 551702090-0022
Sample Description: Room 17/Mortar- grey in colour from concrete block wall (Era 2)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	0%	100%	None Detected	

Client Sample ID: 8B **Lab Sample ID:** 551702090-0023
Sample Description: Room 21/Mortar- grey in colour from concrete block wall (Era 2)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	0%	100%	None Detected	



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

Client Sample ID: 8C **Lab Sample ID:** 551702090-0024

Sample Description: Room 17B/Mortar- grey in colour from concrete block wall (Era 2)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	0%	100%	None Detected	

Client Sample ID: 9A **Lab Sample ID:** 551702090-0025

Sample Description: Room 37/2' x 4' ceiling tile - random small fissure with pinholes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	85%	15%	None Detected	

Client Sample ID: 9B **Lab Sample ID:** 551702090-0026

Sample Description: Room 40/2' x 4' ceiling tile - random small fissure with pinholes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	85%	15%	None Detected	

Client Sample ID: 9C **Lab Sample ID:** 551702090-0027

Sample Description: Room 40/2' x 4' ceiling tile- random small fissure with pinholes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/03/2017	Gray	70%	30%	None Detected	

Analyst(s):

Ewa Krupinska PLM (18)
Simon Parent PLM (7)

Reviewed and approved by:

Matthew Davis
or Other Approved Signatory

None Detected = <0.1%. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Ottawa, ON

Initial report from: 03/03/2017 14:40:54

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



SURVEY OF ASBESTOS-CONTAINING MATERIALS

J.M. DENYES PUBLIC SCHOOL

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

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

(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>.

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