Project #: 13916

ASBESTOS ASSESSMENT Guy Court Memorial University of Newfoundland St. John's, NL

Prepared for:

Sheila Miller Director, Department of Health and Safety Memorial University of Newfoundland 208 Elizabeth Avenue St. John's, NL A1B 1T5

Prepared by:



151 Crosbie Rd. St. John's NL, A1B 4B4 Tel: (709) 754-4146 Fax: (709) 754-4194

September 2011

EXECUTIVE SUMMARY

ALL-TECH Environmental Services Limited conducted an Asbestos Assessment at Guy Court, located at Memorial University of Newfoundland (MUN), St. John's, NL. The objective of the assessment was to determine the presence of asbestos containing materials throughout the building. It was determined that:

- Eleven (11) of the twenty-three (23) suspect asbestos samples collected contained asbestos greater than 1%. (*Newfoundland and Labrador Regulation 111/98, Asbestos Abatement Regulations, 1998 under the Occupational Health and Safety Act.*)
- Pipe fitting insulation was sampled and found to contain 80% Chrysotile asbestos.
- Drywall joint compound was sampled and found to contain 3 5% Chrysotile asbestos.
- Vinyl sheet flooring was sampled and found to contain 15 20% Chrysotile asbestos.
- 1' x 1' vinyl floor tiles, and/or their mastics, sampled from various locations were found to contain between 3 5% Chrysotile asbestos.
- Exterior green panels are suspected to be asbestos containing transite material (sampled from Cartier Court, sample #CR-34)

This summary is not to be used alone. This report must be reviewed in its entirety.

Thank you,

Carla Nosewarky

Carla Noseworthy, C.E.T. Environmental Consultant ALL-TECH Environmental Services Limited

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1.0 INTRODUCTION

ALL-TECH Environmental Services Limited was contracted by Sheila Miller, Director – Department of Health and Safety, Memorial University of Newfoundland (MUN), to complete an Asbestos Assessment at Guy Court located at Memorial University of Newfoundland, St. John's, NL. The purpose of the assessment was to identify the presence of asbestos containing materials located throughout the building. The assessment was conducted in August 2011.

2.0 ASBESTOS ASSESSMENT

Asbestos is a general term which is used to describe a group of fibrous mineral silicates. The six major types of asbestos are; chrysotile (white asbestos), crocidolite (blue), amosite (brown), anthophyllite, tremolite and actinolite. Commercially, asbestos has been used widely in such applications as fireproofing, textiles, friction products, reinforcing materials (i.e. cement pipes, sheets) and insulation (both thermal and acoustic).

Asbestos materials can be found in one of two forms; friable or non-friable. Friable asbestos material refers to material that when dry, can be crumbled, pulverized or reduced to a powder by hand pressure thus releasing fibers into the air. This type of asbestos material is hazardous due to its potential to become airborne if damaged or disturbed. Friable asbestos building products used in the past were sprayed acoustic & fire protection insulations, ceiling/wall finishes, drywall joint compounds, mechanical insulations on pipes, tanks, boilers, vessels, etc. Non-friable building products used in the past were vinyl floor tiles, gaskets, transite panels, and transite shingles. Non-friable materials if handled improperly during removal or renovations, such as cutting transite panels with an electrical tool, can cause high fiber release. Also, non-friable asbestos products can become friable if damaged through years of aging (water damage, general deterioration of materials, etc.).

Asbestos containing materials (ACM) can be properly managed and left in place depending on their location, condition, and friability. Non-friable materials receive less attention than friable materials due to the fact that the asbestos fibers in the non-friable material are bound or held tightly together, reducing the chance of fibers becoming airborne. This makes the non-friable products safer and easier to manage.

The mere presence of asbestos in building materials is not necessarily a problem; however, inhaling asbestos fibers can cause associated health problems. The hazards of asbestos exposure are directly related to the degree to which fibers are released (become airborne). Intact and undisturbed asbestos do not pose a health risk.

2.1 Scope of Work

Representative suspect asbestos containing materials were sampled from wall finishes, various types of flooring, and exterior finishes located throughout the building.

The asbestos assessment involved a visual investigation of representative building structures, wall & ceiling finishes, and flooring for the presence of asbestos materials. If these materials were suspected to contain asbestos, a bulk sample was collected of the representative material.

It should be noted that asbestos containing materials such as piping straight runs & fittings may be present behind existing drywall walls, ceilings, columns, shafts, etc. Since no destructive testing was performed during this assessment, additional care should be taken during renovations/demolition to ensure that no asbestos containing materials are to be disturbed.

2.2 Methodology

A total of twenty-three (23) suspect asbestos bulk samples were collected from the building. Representative suspect asbestos bulk material samples from floors, wall finishes, pipe fitting insulation, ceiling tiles and their adhesive, and light fixture heat shields were carefully collected and placed into labeled sealable plastic bags and transported to the EMSL Analytical Inc. in New Jersey, USA, for Polarized Light Microscopy/ Dispersion Staining (PLM/DS) analysis. The EPA test method for bulk analysis (EPA/600/R-93/116) states in paragraph 2.2.2 that "the detection limit for visual estimation is a function of the quantity of the sample analyzed, the nature of matrix interference, sample preparation, and fiber size and distribution. Asbestos may be detected in concentrations of less than one percent by area if sufficient material is analyzed. Samples may contain fibers too small to be resolved by PLM (< 0.25 μ m in diameter) so detection of those fibers by this method may not be possible."

2.3 Applicable Standards

The province defines Asbestos material as "material containing greater than 1% asbestos by dry weight." Materials identified as ACM must be managed, handled and disposed of as per the Newfoundland and Labrador Regulation 111/98, *Asbestos Abatement Regulations, 1998* under the *Occupational Health and Safety Act* (O.C. 98-730).

Also, the Province of Newfoundland and Labrador have set standards for exposure to airborne asbestos fibres to as low as is reasonably achievable (ALARA) but in any case shall not exceed Threshold Limit Values (TLVs) as published by the American Conference of Governmental Industrial Hygienists (ACGIH) and are primarily used for the occupational exposure to employees and workers who from day to day come in contact with asbestos. ACGIH guidelines state the airborne asbestos limit as follows:

- Asbestos (all forms) 0.1 fibres per cubic centimetre (f/cc) as determined by air sampling following the NIOSH 7400 Asbestos and Other Fibres by Phase Contrast Microscopy.

The Newfoundland Asbestos Abatement Regulations 111/98 requires that all employers, building owners and principal contractors follow this Regulation when handling or using asbestos in their workplace. This Regulation applies to every workplace covered under the Occupational Health and Safety Legislation where asbestos or materials containing asbestos, is likely to be handled, dealt with, disturbed or removed and includes every project, project owner, contractor, employer and employee engaged in or on the project. An owner/contractor to whom this Regulation applies shall take every reasonable precaution to ensure that every worker who is not an employee of the owner/contractor and who works in the workplace of the owner/contractor is protected and every such worker shall comply with the requirements of this Regulation.

2.4 Survey Findings

Laboratory analysis confirmed that eleven (11) of the twenty-three (23) bulk samples collected from the building contained asbestos greater than 1%. Table 1.0 below illustrates the results of this sampling. *See Appendix II - Laboratory Asbestos Results.*

Table 1.0 Summary of Suspect Asbestos Containing Materials Tested Guy Court Memorial University of Newfoundland St. John's, NL

Sample No.	Sample Description and Location	Asbestos Results
GY-1	Pipe Fitting Insulation – Hallway GY3C03	None Detected
GY-2	1' x 1' Vinyl Floor Tile, white with black – Room GY301, entrance	None Detected
	Mastic	3% Chrysotile
GY-3	1' x1' Vinyl Floor Tile, light grey with medium grey – Room GY301, living room	5% Chrysotile
GY -4	1' x1' Vinyl Floor Tile, light brown mix – Room GY301, bedroom	None Detected
GY -5	Vinyl Sheet Flooring, light brown square pattern – Room GY301, washroom	20% Chrysotile
GY -6	Light Fixture Heat Shield – Room GY301	None Detected
GY -7	1' x 1' Vinyl Floor Tile, beige with brown, orange – Room GY302, living room	5% Chrysotile
	Mastic	5% Chrysotile

GY-8	1' x 1' Vinyl Floor Tile, white with brown – Room GY302, bedroom	None Detected
	Mastic	None Detected
GY-9	Vinyl Sheet Flooring, brown and red square pattern – Room GY302, washroom	15% Chrysotile
GY-10	Drywall Joint Compound – Room GY302, living room	None Detected
GY-11	1' x 1' Vinyl Floor Tile, light olive green with white – Room 303, living room	5% Chrysotile
	Mastic	3% Chrysotile
GY-12	Vinyl Sheet Flooring, pink and blue square pattern – Room GY303, living room	20% Chrysotile
GY-13	1' x 1' Vinyl Floor Tile, grey with black dots – Room GY304, living room	None Detected
GY-14	Vinyl Sheet Flooring, grey mix – Room 304, washroom	None Detected
GY-15	Drywall Joint Compound – Room GY205	3% Chrysotile
GY-16	Light Fixture Heat Shield – Room GY203	None Detected
GY-17	Light Fixture Heat Shield – Room GY204	None Detected
GY-18	Drywall Joint Compound – Room GY104	3% Chrysotile
GY-19	Pipe Fitting Insulation – Room GY112	80% Chrysotile
GY-20	2' x 4' Ceiling Tile, pinhole and fissure pattern with pink backing – Room GY312	None Detected
GY-21	2' x 4' Ceiling Tile, pinhole pattern – Room GY312	None Detected
GY-22	1' x 1' Vinyl Floor Tile, beige with brown, white – Room GY210	None Detected
	Mastic	None Detected
GY-23	Drywall Joint Compound – Room GY111	5% Chrysotile

Mechanical and Pipe Material

Two types of pipe fitting insulation which could potentially contain asbestos were observed in select areas throughout the building during this assessment. Samples were collected of fitting insulation in the hallways and a mechanical room and analyzed for asbestos content using the PLM method of detection. The sample from the hallway was identified as non-asbestos containing. The sample in the mechanical room was found to contain 80% Chrysotile asbestos. (see samples GY-1, GY-19 in Appendix II, Photograph 1 Appendix I)

It should also be noted that asbestos containing pipe insulation may be located behind fixed wall cavities and ceiling plenums that were inaccessible at the time of assessment. During demolition precautionary measures must be taken to avoid disturbing any potential ACM in these areas.

Acoustic and Thermal Insulating Products

Acoustic and thermal insulating products were not observed within the building during the assessment.

Friable Acoustic Texture Coats and Plaster Finishes

Drywall joint compound (DJC) finishes were observed throughout the building during the assessment. Four (4) samples were collected and analyzed for asbestos content using the PLM method of detection. Three (3) of the four (4) samples were found to contain between 3 - 5% Chrysotile asbestos. (see samples GY-10, GY-15, GY-18, GY-23 in Appendix II).

It should be noted that due to the uncertainty of when and where a specific type of drywall joint compound was used, it is to be assumed that all drywall joint compound present in the building contains asbestos.

Friable Acoustic and Thermal Fireproofing Products

Friable acoustic and thermal fireproofing products were not observed within the building during the assessment.

Friable Ceiling Tiles / Ceiling Tile Adhesives

Two styles of 2' x 4' ceiling tiles were observed on the walls in Room GY312 during the assessment. Both samples, one with a pinhole and fissure pattern with a pink backing and the other with a pinhole pattern were sampled and analyzed for asbestos content using the PLM method of detection. Both samples were identified as non-asbestos containing. (see samples GY-20, GY-21 in Appendix II)

Vinyl Sheet/Linoleum Flooring

Various vinyl sheet floorings which could potentially contain asbestos were identified in the building during the assessment. Four (4) samples of this flooring were sampled and analyzed for asbestos content using the PLM method of detection. Three (3) samples of the flooring were found to contain between 15 - 20% Chrysotile asbestos. (see samples GY-5, GY-9, GY-12, GY-14 in Appendix II, Photographs 2 - 4 in Appendix I)

Non-Friable Vinyl Floor Tiles/ Floor Tile Adhesives

Vinyl floor tiles which could potentially contain asbestos were identified during the assessment. Eight (8) samples of 1' x 1' vinyl floor tiles were sampled and analyzed for asbestos content using the PLM method of detection. Four (4) tiles and/or their associated mastics were found to contain between 3 - 5% Chrysotile asbestos. (see samples GY-2, GY-3, GY-4, GY-7, GY-8, GY-11, GY-13, GY-22 in Appendix II, see Photographs 5 - 8, Appendix I)

Non-Friable Transite Panels, Sheeting and Shingles

Exterior green panels are suspected to be asbestos containing transite materials. Visually similar panels were sampled from Cartier Court (sample # CR-34) and were found to contain 25% Chrysotile asbestos. As such, based on the composition and similarity of the construction of these residences, it is suspected that the panels at Guy Court are also asbestos containing.

Non-Friable Transite Piping

Transite piping was not observed during the assessment.

Electrical Wiring/ Lighting

Three (3) types of light fixture heat shields were observed throughout the building. Samples were collected and analyzed for asbestos content using the PLM method of detection. All samples analyzed were identified as non-asbestos containing. (see samples GY-6, GY-16, GY-17 in Appendix II).

Roofing Materials

Access to the roof was not available at the time of the assessment.

Other Materials

Window caulking, interior or exterior, was not sampled during this assessment.

No other materials suspected of containing asbestos were observed during the assessment.

2.5 Recommendations

The assessment identified that numerous materials contained a concentration of asbestos equal to or greater than 1% by dry weight. According to regulations, the owner of any building/ residence is required to implement and maintain specific health and safety measures, therefore the following recommendations are provided:

- All materials listed in fair and/or poor condition are to be repaired or removed immediately. See APPENDIX III – Asbestos Building Survey Information for materials condition and locations.
- Ensure that prior to and during any major renovations/demolition extreme caution is implemented to make certain that asbestos containing materials are not disturbed. It should be noted that asbestos containing materials may be concealed behind fixed walls/ceiling plenums and under existing sub-floors.
- Ensure that when disturbing asbestos materials, the asbestos removal contractor follows all federal and provincial regulations in accordance to the Newfoundland and Labrador Regulation 111/98.
- Retain a copy of this report on-site for future reference of friable and nonfriable asbestos products.
- Provide asbestos air monitoring and inspection during the removal of asbestos to ensure that all government guidelines and regulations are followed throughout the removal process.

3.0 DISCLAIMER

This report was prepared by ALL-TECH Environmental Services Limited for the sole benefit of our client Ms. Sheila Miller. The information in the report is based on information provided or obtained by ALL-TECH. The report is based on ALL-TECH's best judgment with the information provided at the time of the assessment. Any use and/or conclusions used by any third party, is the responsibility of that third party. ALL-TECH accepts no liability and/or damages occurred by any third party that uses information obtained in this report.

If you have any questions regarding this report, please do not hesitate to call me at (709) 754-4146.

Thank You,

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Carla Noseworthy, CET Environmental Consultant ALL-TECH Environmental Services Limited

Reviewed by:

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Orven Newhook, B.Sc. Project Manager ALL-TECH Environmental Services Limited

APPENDIX I PHOTOGRAPHS OF ASBESTOS CONTAINING MATERIALS



Photograph 1: Sample GY-19, asbestos containing pipe fitting insulation in Room GY112.



Photograph 2: Sample GY-5, asbestos containing vinyl sheet flooring.

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Photograph 3: Sample GY-9, asbestos containing vinyl sheet flooring.



Photograph 4: Sample GY-12, asbestos containing vinyl sheet flooring

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Photograph 5: Sample GY-2. The floor is non-asbestos containing, the mastic contains 3% Chrysotile asbestos.



Photograph 6: Sample GY-3, asbestos containing floor tile.

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Photograph 7: Sample GY-7, asbestos containing floor tile.



Photograph 8: Sample GY-11, asbestos containing floor tile.

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APPENDIX II LABORATORY ASBESTOS RESULTS



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Project	: 13916-GUY		Analysis Date:	8/29/2011

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample GY1		Non-Asbestos					
GY1	Description	Appearance	%	Fibrous	% Non-Fibrous	% Type	
041123319-0001	GY301 - PIPE FITTING INSULATION	Gray Fibrous Heterogeneous	10% 15%	Cellulose Min. Wool	75% Non-fibrous (other)	None Detected	
GY2-Floor Tile 941123379-0002	GY301- ENTRANCE - 1 X 1 VT - WHITE W/ BLACK	Grayish Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected	
GY2-Mastic 041123379-0002A	GY301- ENTRANCE - 1 X 1 VT - WHITE W/ BLACK	Black Fibrous Heterogeneous			97% Non-fibrous (other)	3% Chrysotile	
GY3 041123379-0003	GY301-LR - 1 X 1 VT - LT GREY W/ MED GREY	Gray Non-Fibrous Heterogeneous			95% Non-fibrous (other)	5% Chrysotile	
GY4 041123379-0004	GY301-BR1 - 1 X 1 VT - LT BROWN MIX	Grayish Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected	
GY5 041123379-0005	GY301-WR - VSF- LT BROWN SQUARE PATTERN	Brown/Gray Fibrous Heterogeneous			80% Non-fibrous (other)	20% Chrysotile	

Test Report PLM-7.23.0 Printed: 9/9/2011 1:28:07 PM



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Project:	13916-GUY		Analysis Date:	8/29/2011

				Non-Ast	Asbestos	
ample	Description	Appearance	%	Fibrous	% Non-Fibrous	% Туре
GY6 041123379-0006	GY301 - LIGHT FIXTURE HEAT SHIELD	Tan/Silver Fibrous Heterogeneous	80% 10%	Cellulose Glass	10% Non-fibrous (other)	None Detected
GY7-Floor Tile 041123379-0007	GY302-L.R 1 X 1 VT- BEIGE W/ BROWN ORANGE	Tan Non-Fibrous Heterogeneous			95% Non-fibrous (other)	5% Chrysotile
GY7-Mastic 941123379-0007A	GY302-L.R 1 X 1 VT- BEIGE W/ BROWN ORANGE	Black Fibrous Heterogeneous			95% Non-fibrous (other)	5% Chrysotile
GY8-Floor Tile 041123379-0008	GY302-BR - 1 X1 VT - WHITE W/ BROWN	Grayish Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected
GY8-Mastic 041123379-0008A	GY302-BR - 1 X1 VT - WHITE W/ BROWN	Black Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected
GY9 041123379-0009	GY302-WR - VSF- BROWN /RED SQUARE PATTERN	Brown/Red Fibrous Heterogeneous			85% Non-fibrous (other)	15% Chrysotile
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Fax:		Phone: (709) 754-4146	EMSL Proi:	
Projec	t: 13916-GUY		Analysis Date:	8/29/2011

				Non-As	bestos	Asbestos
Sample	Description	Appearance	%	Fibrous	% Non-Fibrous	% Туре
GY10 041123379-0010	GY302-LR - DJC	White Non-Fibrous Heterogeneous	Suggest T	EM	100% Non-fibrous (other)	None Detected
GY11-Floor Tile 041123379-0011	GY303-LR - 1 X 1 VT- LT OLIVE GREEN W/ WHITE	Green Non-Fibrous Heterogeneous			95% Non-fibrous (other)	5% Chrysotile
GY11-Mastic 041123379-0011A	GY303-LR - 1 X 1 VT- LT OLIVE GREEN W/ WHITE	Black Fibrous Heterogeneous			97% Non-fibrous (other)	3% Chrysotile
GY12 041123379-0012	GY303-WR - VSF - PINK/BLUE SQUARE PATTER	∨arious Fibrous Heterogeneous			80% Non-fibrous (other)	20% Chrysotile
GY13 041123379-0013	GY304-L.R 1 X 1 VT GREY W/ BLACK DOTS	Gray Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected
GY14 041123379-0014	GY304-WR - VSF- GREY MIX	Gray Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected
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Analyst(s)					State Sey	d
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Fax:		Phone: (709) 754-4146	EMSL Proi	
Project:	13916-GUY		Analysis Date:	8/29/2011

				Non-Asbe	estos	Asbestos		
ample 3Y15 41123379-0015 3Y16 41123379-0016 3Y17 41123379-0017 3Y18 41123379-0018 3Y19 41123379-0019 3Y20 41123379-0020 port Amended: nalyst(s) hris Little (28)	Description	Appearance	%	Fibrous	% Non-Fibrous	% Туре		
GY15 041123379-0015	GY205 - DJC	Tan Fibrous Heterogeneous			97% Non-fibrous (other)	3% Chrysotile		
GY16 041123379-0016	GY203 - LIGHT FIXTURE HEAT SHIELD	Tan Fibrous Heterogeneous	40%	Glass	60% Non-fibrous (other)	None Detected		
GY17 041123379-0017	GY104 - LIGHT FIXTURE HEAT SHIELD	Gray/Silver Fibrous Heterogeneous	75%	Cellulose	25% Non-fibrous (other)	None Detected		
GY18 041123379-0018	GY104 - DJC	White Non-Fibrous Heterogeneous			97% Non-fibrous (other)	3% Chrysotile		
GY19 041123379-0019	GY112 - PIPE FITTING INSULATION	Gray Fibrous Heterogeneous			20% Non-fibrous (other)	80% Chrysotile		
GY20 041123379-0020	GY312 - 2' X 4' CT - PH / FISSURE, PINK BACKING	Gray/White Fibrous Heterogeneous	50% 30%	Cellulose Min. Wool	20% Non-fibrous (other)	None Detected		
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				Non-Asb	estos	Asbestos
ample	Description	Appearance	%	Fibrous	% Non-Fibrous	% Type
GY21 041123379-0021	GY312 - 2' X 4' CT -PH	Gray/White Fibrous Heterogeneous	40% 40%	Cellulose Min. Wool	20% Non-fibrous (other)	None Detected
GY22-Floor Tile 41123379-0022	GY210 - 1 X1 VT- BEIGE W/ BROWN WHITE	Beige Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected
GY22-Mastic #1123379-0022A	GY210 - 1 X1 ∨T- BEIGE W/ BROWN WHITE	Black Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected
GY23 041123379-0023	GY111 - DJC	Tan Fibrous Heterogeneous			95% Non-fibrous (other)	5% Chrysotile
			00 00 00 00			
port Amended: 09	/09/2011 13:28:07 Rep	laces the inital Report	08/30/201	11 08:17:39. Reas	on Code: Client-Additional Analysis	
aport Amended: 09 Analyst(s)	/09/2011 13:28:07 Rep	laces the Inital Report	08/30/201	1 08:17:39. Reas	ion Code: Client-Additional Analysis	
eport Amended: 09 Analyst(s) Chris Little (28)	/09/2011 13:28:07 Rep	laces the inital Report	08/30/201	11 08:17:39. Reas	ion Code: Client-Additional Analysis	ry Manager tory
eport Amended: 09 Analyst(s) Chris Little (28) EMSL EMSL bears no must not be used by the report meet the require available upon request.	/09/2011 13:28:07 Rep / limited to the cost of analysis responsibility for sample colle e client to claim product certific ments of NELAC unless otherw	laces the Inital Report	08/30/201 the samples method limit ent by NVLA sived in good	11 08:17:39. Reas reported above and ma ations. Interpretation an P. NIST or any agency condition unless other	son Code: Client-Additional Analysis Stephen Siegel, CIH, Laborator or other approved signa y not be reproduced, except in full, without writter d use of test results are the responsibility of the cl of the federal government. The test results contain wise noted. Estimated accuracy, precision and ur Goddo Nub CLAB COST	ry Manager tory i approval by ient. This report ned within this icertainty data

APPENDIX III ASBESTOS BUILDING SURVEY INFORMATION

Asbestos Bldg Survey Information -- Guy Court

Room #	Bidg, System	Component	Material Type	Access		Cor	ditions		Quantity	Sample No.	Sample	Sample	Result
					Good	Fair	Poor	Sprayed			Location	Description	
Exterior			¹ Exterior Green Panels									Suspect Transite	
Throughout Building			Drywall Joint Compound	А		x				GY-15, GY-18, GY 23	Wall, Room GY205, GY104, GY111		3-5% Chrysotile
GY101			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-11		1' x 1' Vinyl Floor Tile, light olive green with white	5% Chrysotile & 3% Chrysotile
GY101			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-12		Pink and Blue Square Pattern	20% Chrysotile
GY102			Vinyl Floor Tile	A	x				~ 300 ft ²	GY-3		1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile
GY102			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-5		Light Brown Square Pattern	20% Chrysotile
GY103			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7		1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile
GY103			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-9		Brown and Red Square Pattern	15% Chrysotile
GY104			Vinyl Floor Tile & Mastic	A	×				~ 300 ft ²	GY-11		1' x 1' Vinyl Floor Tile, light olive green with white	5% Chrysotile & 3% Chrysotile
GY104			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-12	Floor, washroom, Room GY303	Pink and Blue Square Pattern	20% Chrysotile
GY105			Vinyl Floor Tile	A	x				~ 300 ft ²	GY-3		1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile
GY105			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-5		Light Brown Square Pattern	20% Chrysotile
GY106			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7		1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile
GY106			Vinyl Sheet Flooring	Α	x				~ 20 ft ²	GY-9		Brown and Red Square Pattern	15% Chrysotile

Room #	Bldg. System	Component	Material Type	Access		Cor	nditions		Quantity	Sample No.	Sample	Sample	Result
			Mand Floor Tile B		Good	Fair	Poor	Sprayed			Location	1' x 1' Vinyl Floor	For Chanadila 8 294
GY107			Vinyl Floor Tile & Mastic	Α	x				~ 300 ft ²	GY-11		Tile, light olive green with white	5% Chrysotile & 3% Chrysotile
GY107			Mastic	A	×				~ 35 ft ²	GY-2		1' x 1' Vinyl Floor Tile, white with black	3% Chrysotile
GY108			Vinyl Floor Tile	A	x				~ 300 ft ²	GY-3		1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile
GY108			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-5		Light Brown Square Pattern	20% Chrysotile
GY109			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7		1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile
GY109			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-9		Brown and Red Square Pattern	15% Chrysotile
GY110			Vinyl Floor Tile & Mastic	А	x				~ 300 ft ²	GY-11		1' x 1' Vinyl Floor Tile, light olive green with white	5% Chrysotile & 3% Chrysotile
GY110			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-12		Pink and Blue Square Pattern	20% Chrysotile
GY111			Vinyl Floor Tile	A	×				~ 300 ft ²	GY-3		1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile
GY111			Vinyl Sheet Flooring	А	×				~ 20 ft ²	GY-12		Pink and Blue Square Pattern	20% Chrysotile
GY112			Pipe Fitting Insulation	В	x				~ 30	GY-19	Room GY112	Grey Insulation	80% Chrysotile
GY113			Pipe Fitting Insulation	В	x				~ 15	GY-19		Grey Insulation	80% Chrysotile
GY201			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7		1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile
GY201			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-9		Brown and Red Square Pattern	15% Chrysotile
GY203			Vinyl Floor Tile	A	x				~ 300 ft ²	GY-3		1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile

Room #	Bidg, System	Component	Material Type	Access		Cor	nditions		Quantity	Sample No.	Sample	Sample	Result
	bing. system	component	indicender ()pe		Good	Fair	Poor	Sprayed	Quantity	Semple no.	Location	Description	hesen
GY203			Vinyl Sheet Flooring	Α	x				~ 20 ft ²	GY-5		Light Brown Square Pattern	20% Chrysotile
GY204			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7		1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile
GY204			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-9		Brown and Red Square Pattern	15% Chrysotile
GY205			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-11		1' x 1' Vinyl Floor Tile, light olive green with white	5% Chrysotile & 3% Chrysotile
GY206			Vinyl Floor Tile	A	x				~ 300 ft ²	GY-3		1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile
GY206			Vinyl Sheet Flooring	A	x				~ 20 ft ²	GY-5		Light Brown Square Pattern	20% Chrysotile
GY207			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7		1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile
GY207			Vinyl Sheet Flooring	A	x				~ 20 ft ²	GY-9		Brown and Red Square Pattern	15% Chrysotile
GY208			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-11		1' x 1' Vinyl Floor Tile, light olive green with white	5% Chrysotile & 3% Chrysotile
GY208			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-12		Pink and Blue Square Pattern	20% Chrysotile
GY209			Vinyl Floor Tile	A	x				~ 300 ft ²	GY-3		1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile
GY209			Vinyl Sheet Flooring	Α	x				~ 20 ft ²	GY-5		Light Brown Square Pattern	20% Chrysotile
GY210			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7		1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile

Room #	Bidg System	Component	Material Type	Access		Cor	ditions		Quantity	Sample No.	Sample	Sample	Pocult
Noonna	blug. system	component	Waterial Type	Access	Good	Fair	Poor	Sprayed	Quantity	Sample No.	Location	Description	Nesun
GY210			Vinyl Sheet Flooring	А	×				~ 20 ft ²	GY-9		Brown and Red Square Pattern	15% Chrysotile
GY211			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-11		1' x 1' Vinyl Floor Tile, light olive green with white	5% Chrysotile & 3% Chrysotile
GY301			Mastic	А	x				~ 35 ft ²	GY-2	Floor, Entrance, Room GY301	1' x 1' Vinyl Floor Tile, white with black	3% Chrysotile
GY301			Vinyl Floor Tile	A	×				~ 300 ft ²	GY-3	Floor, Living Room, Room GY301	1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile
GY301			Vinyl Sheet Flooring	A	x				~ 20 ft ²	GY-5	Floor, washroom, Room GY301	Light Brown Square Pattern	20% Chrysotile
GY302			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7	Floor, Living Room, Room GY302	1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile
GY302			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-9	Floor, washroom, Room GY302	Brown and Red Square Pattern	15% Chrysotile
GY303			Vinyl Floor Tile & Mastic	A	×				~ 300 ft ²	GY-11	Floor, Living Room, Room GY303	1' x 1' Vinyl Floor Tile, light olive green with white	5% Chrysotile & 3% Chrysotile
GY303			Vinyl Sheet Flooring	A	x				~ 20 ft ²	GY-12	Floor, washroom, Room GY303	Pink and Blue Square Pattern	20% Chrysotile
GY304			Vinyl Floor Tile	A	×				~ 300 ft ²	GY-3		1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile
GY304			Vinyl Sheet Flooring (found underneat newer sheet flooring)	A	x				~ 20 ft ²	GY-5		Light Brown Square Pattern	20% Chrysotile
GY305			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7		1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile
GY305			Vinyl Sheet Flooring	Α	x				~ 20 ft ²	GY-9		Brown and Red Square Pattern	15% Chrysotile

Boom #	Bida System	Component	Material Tune	Access		Cor	nditions		Quantity	Cample No.	Sample	Sample	Pocult
NOOTH #	biug. system	component	wateriar rype	Access	Good	Fair	Poor	Sprayed	Quantity	sample No.	Location	Description	Nesult
GY306			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-11		1' x 1' Vinyl Floor Tile, light olive green with white	5% Chrysotile & 3% Chrysotile
GY306			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-12		Pink and Blue Square Pattern	20% Chrysotile
GY307			Vinyl Floor Tile	A	x				~ 300 ft ²	GY-3		1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile
GY307			Vinyl Sheet Flooring	A	x				~ 20 ft ²	GY-5		Light Brown Square Pattern	20% Chrysotile
GY308			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7		1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile
GY308			Vinyl Sheet Flooring	А	x				~ 20 ft ²	GY-9		Brown and Red Square Pattern	15% Chrysotile
GY309			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-11		1' x 1' Vinyl Floor Tile, light olive green with white	5% Chrysotile & 3% Chrysotile
GY309			Vinyl Sheet Flooring	A	x				~ 20 ft ²	GY-12		Pink and Blue Square Pattern	20% Chrysotile
GY310			Vinyl Floor Tile	A	x				~ 300 ft ²	GY-3		1' x 1' Vinyl Floor Tile, light grey with medium grey	5% Chrysotile
GY310			Vinyl Sheet Flooring	A	x				~ 20 ft ²	GY-5		Light Brown Square Pattern	20% Chrysotile
GY311			Vinyl Floor Tile & Mastic	A	x				~ 300 ft ²	GY-7		1' x 1' Vinyl Floor Tile, beige with dark brown, orange	5% Chrysotile & 5% Chrysotile
GY311			Vinyl Sheet Flooring	A	x				~ 20 ft ²	GY-9		Brown and Red Square Pattern	15% Chrysotile

No Access was available to the following rooms: GY103, GY202, GY213, GY313

Room #	Bidg, System	Component	Material Tune	Accord		Conditions				Sample No	Sample	Sample	Pocult
Room	blug. system	component	waterial type	Access	Good	Fair	Poor	Sprayed	Quantity	sample no.	Location	Description	Nesure
					-								

Access: A - Areas within reach from the floor. B - Frequently entered maintenance areas floor level. C - exposed / concealed above 8 ft, crawl space, etc.D - Inaccessible

¹Suspect asbestos containing transite. Visually similar material sampled at Cartier Court (sample #CR34)

APPENDIX IV FLOOR PLANS SHOWING SAMPLING LOCATIONS





