

Designated Substances and Hazardous Material Survey

OCHC 818 Gladstone Avenue Complex

59 Raymond Street;

63 through 73 (odd) Raymond Street;

81, 83 Raymond Street;

488 through 534 (even) Booth Street;

299 through 361 (odd) Rochester Street;

365 Rochester Street; 818 through

832 (even) Gladstone Avenue

Ottawa, Ontario

Ottawa Community Housing

Corporation





Executive Summary

GHD was retained by Mr. Amin representing Ottawa Community Housing Corporation (Client or OCHC) to conduct a Designated Substances (DS) Survey for the ten townhouse buildings forming the OCHC, 818 Gladstone Complex. The ten buildings occupy the neighbourhood block formed by Gladstone Avenue, Rochester Street, Booth Street, and Raymond Street in Ottawa, Ontario (Site or Property). The Work Area, as identified by the Client, was limited to:

• The ten multi-unit residential buildings that occupy the Site.

The Client and Contractors working on this project should understand the limits of the scope for this current DS Survey assignment. If the Work Area needs to be increased for unforeseen construction conditions, then further DS surveys may be required.

GHD understands that the Client intends to redevelop the Site. We understand that the proposed development will consist of demolition and removal of the existing townhouses.

It is GHD's understanding that the DS Survey was requested to evaluate the potential for the presence of designated substances at the Work Area prior to demolition.

The DS Survey included a Site inspection to identify and quantify DS, sampling and analysis, and documentation of DS Survey activities in a report. Inspection was allowed in all potentially impacted areas of the Work Area, with the exception of the occupied units at 822, 824, 826, 830 and 832 Gladstone Avenue; 299, 303, 307, 313, 317, 321, 331, 343, 349, 365 Rochester Street; 494, 504, 514, 528, 530 Booth Street and 73 Raymond Street. Sampling was permitted in all non-occupied units. Access to the attics of the buildings were limited to units 67 and 69 Raymond Street. For the purpose of this investigation, Gladstone Avenue was assumed to be the west-east axis of the Site, and the entire complex was treated as a single structure.

The following conclusions/recommendations were developed based on the results of the DS Survey:

- 1. Notification and/or a copy of the limited DS Survey Report should be made available to employees and Contractors working in the Work Area.
- GHD completed an Asbestos Survey in the Work Area in accordance with O. Reg. 278/05 as part of the DS Survey. GHD's Asbestos Survey identified the following building materials as ACMs:
 - W1/Drywall Joint Compound | Friable, white colored drywall joint compound found on
 walls and ceilings in the building. Visually similar material was identified in all units in all
 buildings, accordingly, all drywall joint compound is assumed to be ACM. The material
 was generally in good condition.
 - F32/Vinyl Floor Tile | Non-friable vinyl floor tile (9" x 9", olive with white flecks) submitted from Unit 488. Visually similar flooring was identified in unit 492 (closet), unit 524 (closet) and unit 329 (stairs landing); these visually similar materials should also be treated as ACM.
 - F56/Vinyl Floor Tile | Non-friable vinyl floor tile (9" x 9", dark brown) submitted from Unit 355 (stair landing). No visually similar flooring was identified in any other units.



- F64/Vinyl Floor Tile | Non-friable vinyl floor tile (9" x 9", beige with small brown flecks) submitted from Unit 65 (kitchen). No visually similar flooring was identified in any other units.
- F68/Vinyl Floor Tile | Non-friable vinyl floor tile (12" x 12", beige with brown streaks) submitted from Unit 339 (2nd floor). No visually similar flooring was identified in any other units.
- M2/Tar seal on foundation walls | Non-friable black tar was present in the crawlspaces, used to affix Styrofoam panels to the concrete block walls, and as damp proofing on the interior of the block walls. Visually similar material was identified in all units in all buildings, accordingly, all black tar on exterior walls and on white Styrofoam panels is assumed to be ACM. The material was generally in good condition.
- M4/Cellulose Pipe Wrap | Non-friable pipe wrap pipe insulation was identified on pipes in Unit 355 (1st floor laundry). There was approximately 5 meters (m) of this material.
 Approximately 3 m of a visually similar material was identified in Unit 337 (basement bedroom).
- M5/Vermiculite | Vermiculite was identified acting as insulation around a pipe in the
 entrance of Unit 67. The vermiculite was identified to contain Tremolite asbestos at
 concentrations above 0.5 percent. The Client should treat all vermiculite found at the Site
 as ACM.
- M6/Cement Elbow | Three cement elbows submitted from Unit 355 (laundry room). The Client should treat all cement elbows found at the Site as ACM.
- M11/White exterior caulking | While the submitted samples of the exterior caulking around
 the windows and doors from Unit 504 and Unit 65 were determined to not contain
 asbestos, a visually similar sample collected from Unit 337 was identified to contain
 Chrysotile asbestos at concentrations above 0.5 percent. Accordingly, the Client should
 treat all white caulking found at the Site as ACM.

A contractor, certified for asbestos abatement, should be retained to complete asbestos abatement services prior to demolition of the buildings. Handling and disposal of all ACM should be conducted in accordance with O. Reg. 278/05.

The inspection was destructive in nature; holes were made in the surface of exposed materials in representative areas of the building as determined by the assessor. It is however, a random sampling, and there may be hazardous building materials present in areas that were not inspected. If hidden materials that may be potential ACM are discovered during further assessment, maintenance, renovation or demolition activities, work should cease until samples are analysed. Alternatively, potential or suspected ACM can be managed as ACM for handling and disposal purposes.

3. The 21 of 50 submitted paint samples contained lead between 90 ppm and 1,000 ppm; as such these samples are considered to be low-level lead-containing paints (LCP). For the purposes of maintenance, renovation, or demolition activities, all paint on surfaces should be treated as LCP. The observed paint was noted to be generally well adhered to the substrate; some peeling paint was observed.



It is assumed that lead is present in electrical and plumbing services (solder), electrical conduit, batteries, and packing in older cast iron piping system materials at the Site.

A Lead Management Plan (LMP) should be prepared in accordance with 2011 Ontario Ministry of Labour (MOL) and 2014 Environmental Abatement Council of Ontario (EACO) guidelines. The LMP would protect workers during demolition, renovation, and maintenance activities which will disturb lead containing materials, until all lead containing materials are removed from the Site.

Building materials containing lead in surface coatings are typically characterized and disposed of as non-hazardous solid waste. However, the paint data should be provided to the disposal facility to provide confirmation of acceptance prior to shipping materials. Alternatively, a representative bulk sample of demolition debris could be collected and submitted for Toxicity Characteristic Leaching Procedure (TCLP) to provide confirmation that the material would not be classified as D008 leachate toxic hazardous waste.

- 4. Silica is present in footings, concrete block and poured concrete foundation walls, in plaster and texture coat, and in the fiberglass insulation in the Work Area. The Guideline for Silica on Construction Projects (MOL, April 2011) should be used to develop appropriate procedures to implement during maintenance, renovation, or demolition activities which disturb silica containing materials and may generate silica containing dust.
- 5. Man-made mineral fibre materials are present in fibreglass insulation on some of the pipes, and in fiberglass batt insulation found in the walls and attic space in the Work Area. Measures should be taken to control man-made mineral fibre dust hazard when the potential for creating airborne man-made mineral fibre dust entrained from such processes as renovation or demolition. The Guideline for Silica on Construction Projects (MOL, April 2011) should be used to develop appropriate procedures to implement during maintenance, renovation, or demolition activities that will disturb man-made mineral fibre materials in the Work Area.
- 6. No significant water intrusion or suspect mould growth was observed in above grade structures in the Work Area.



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1. Introduction

GHD was retained by Mr. Amin Amin representing Ottawa Community Housing Corporation (Client or OCHC) to conduct a Designated Substances (DS) Survey for the ten townhouse buildings forming the 818 Gladstone Avenue Complex (Site or Property). The DS Survey was conducted as detailed in our Proposal (No. 11177877) dated May 24, 2019, with the following exceptions:

- Townhouses numbered 822, 824, 826, 830 and 832 Gladstone Avenue; 299, 303, 307, 313, 317, 321, 331, 343, 349, 365 Rochester Street; 494, 504, 514, 528, 530 Booth Street and 73 Raymond Street were not inspected as the units were occupied.
- With the exception of units 67 and 69 Raymond Street, the attic of all units were not inspected.

For the purposes of this investigation:

- Gladstone Avenue is considered to represent the west-east axis
- The Site is occupied by 10 separate townhouse buildings, including:
 - Building 1 | 818 through 832 (even numbered) Gladstone, and unit 299 Rochester Street, including Mechanical room
 - Units 822, 824, 826, 830, 832, 299 were occupied
 - Building 2 | 301 through 325 (odd numbered) Rochester Street, including two Mechanical rooms
 - Units 303, 307, 313, 317, 321 were occupied
 - Building 3 | 339 through 361 (odd numbered) Rochester Street, including Mechanical Room
 - Units 343, 349 were occupied
 - Building 4 | 327 through 337 (odd numbered) Booth Street
 - Unit 331 was occupied
 - Building 5 | 498 through 508 (even numbered) Booth Street
 - Unit 504 was occupied
 - Building 6 | 488 through 496 (even numbered) Booth Street
 - Unit 494 was occupied
 - Building 7 | 510 through 534 (even numbered) Booth Street, including two Mechanical Rooms
 - Unit 514, 528, 530 were occupied
 - Building 8 | 59 Raymond Street, 538 through 542 (even numbered) Booth Street
 - Building 9 | 63 through 73 (odd numbered) Raymond Street, including Mechanical Room
 - Unit 73 could not be accessed
 - Building 10 | 81 and 83 Raymond Street, 365 Rochester Street
 - 365 was occupied



All ten buildings on the Site were treated as a single structure

The Work Area, as identified by the Client was limited to:

The ten multi-unit residential buildings that occupy the Site

GHD understands that the Client intends to redevelop the Site. We understand that the proposed development will consist of demolition and removal of the existing townhouses.

It is GHD's understanding that the DS Survey was requested to evaluate the potential for the presence of designated substances at the Work Area prior to demolition.

The report is intended to provide a general overview of the ten buildings, based on a survey of a representative number of random locations in various units in the buildings. The Client and Contractors working on this project should understand the limits of the scope for this current DS Survey assignment.

The scope of the DS Survey was to identify and evaluate designated substances within the Work Area. Designated Substances are defined and regulated by the Ontario Regulation (O. Reg.) 490/09 Designated Substances, O. Reg. 278/05 Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations and the Occupational Health and Safety Act (OHSA) Section 30 including: acrylonitrile, arsenic, asbestos, benzene, coke oven emissions, ethylene oxide, isocyanates, lead, mercury, silica, and vinyl chloride. The inspection was destructive in nature; holes were made in the surface of exposed materials in representative areas of the building as determined by the assessor. It is however a random sampling, and there may be hazardous building materials present in areas that were not inspected.

The following items were not inspected or sampled as part of Site inspections since these items were not readily accessible, or it was not practical to safely access for inspection or sampling, or it was not necessary to inspect based on the age and type of construction and Site contact knowledge:

- Components or wiring within motors, lights or other electrical systems, equipment, wiring, and fixtures.
- Components of the heating systems
- Components in non-fixed systems (appliances, etc.)
- Materials inside sealed manufactured products (i.e., doors, etc.)
- Materials below grade

During the site visit, it was noted that newer plywood floor decking was present in many of the units of the complex. This decking was penetrated in 17 separate locations during the site visit, indicating that older vinyl flooring was not concealed in these locations. However, there is a possibility that there may be locations not inspected where the decking was laid over older flooring materials.

This DS Survey has been prepared for Ottawa Community Housing Corporation and may not be relied upon by others without the written consent of GHD. Any such unauthorized reliance on or use of this DS Survey Report, including the information and conclusions provided, will be at the third party's risk.



1.1 Regulations and Guidance

The DS Survey was conducted in accordance with and consideration of the following Acts, Regulations and Guidance:

- Canadian Surface Coating Materials Regulation (SOR/2016-193), pursuant to the Canada Consumer Safety Act.
- The United States Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-based Paint in Housing.
- Occupational Health & Safety Act:
 - O. Reg. 833/90, Control of Exposure to Biological or Chemical Agents
 - O. Reg. 278/05, Asbestos on Construction Projects and in Building and Repair Operations and the corresponding Guideline (MOL, May 2011).
 - O. Reg. 490/09 Designated Substances
- Environmental Protection Act:
 - O. Reg. 347/90, General Waste Management
- Guideline for Lead on Construction Projects (MOL, April 2011)
- Guideline for Silica on Construction Projects (MOL, April 2011)
- Mercury-Containing Products Pollution Prevention Fact Sheet #21 (Ministry of the Environment (MOE), September 2001).
- Lead Guideline for Construction, Renovation, Maintenance or Repair (EACO, October 2014)
- Construction Safety Association of Ontario Synthetic Vitreous Fibres, Guidelines for Construction (Construction Safety Association of Ontario, 2005).

1.2 Scope of Work

On June 5, 6, 7, 2019, GHD staff (Mr. Scott Wallis, Ms. Zoé Jeaurond, Ms. Jacquelyn Curphey, and Mr. Junmeng Liu) completed the Site assessment of the Work Area identified by OCHC staff. The assessment involved a visual review of the Work Area, and intrusive (destructive) sampling of representative areas in the buildings. The following tasks were completed as part of the DS Survey activities:

- Site inspection (limited to the Work Area)
 - Conduct an Asbestos Containing Materials (ACM) survey, by way of sampling suspect materials.
 - Quantify and determine the condition of suspect ACM.
 - Identify and document mercury containing equipment.
 - Conduct a lead based paint (LBP) survey, by way of sampling of suspect materials.
 - Quantify and determine the condition of suspect lead containing material.
 - Identify and document suspect arsenic containing materials.
 - Identify and document Benzene containing equipment and materials.



- Identify and document other designated substance potentially associated with the building finish materials including Acrylonitrile, Coke Oven Emissions, Isocyanates, Silica, and Vinyl Chloride.
- Preparation of an inventory of designated substances and documentation of activities and evaluations for a DS Survey Report.

The inspection was destructive in nature; holes were made in the surface of exposed materials in representative areas of the building as determined by the assessor. It is however a random sampling, and there may be hazardous building materials present in areas that were not inspected.

2. Site Overview

The Site occupied the neighbourhood block formed by Gladstone Avenue, Rochester Street, Booth Street, and Raymond Street in Ottawa, Ontario. The Site is located in an area developed for institutional and mixed residential / commercial use.

The Site contains ten separate multi-unit residential buildings, reportedly constructed in the 1960s. The majority of the buildings are two stories in height (67 units were two stories, five units were three stories, and five units were single story), wood frame construction with firewalls between units of concrete block. The building exterior is finished with a mix of brick, siding, and concrete parging. There are five mechanical rooms that contain a concrete floored basement level. With the exception of the mechanical rooms the remainder of the buildings contain an earthen floor crawlspace and concrete block foundation walls. The majority (56/77) of the residential units are presently vacant.

Photographs of the Work Area identifying typical sampled materials are provided in Appendix A.

3. Records Review

The Client did not provide previous designated substance reports for GHD to review and was not aware of any such studies.

4. Site Inspections

On June 5 through 7, 2019, GHD staff (Mr. Scott Wallis, Ms. Zoé Jeaurond, Ms. Jacquelyn Curphey, and Mr. Junmeng Liu) conducted the Site assessment of the ten buildings present at the Site.

5. DS Survey

5.1 Acrylonitrile

Acrylonitrile is a colourless to pale-yellow liquid at room temperature, with an unpleasant odour. It is used in the manufacturing of synthetic fibres, rubber, coatings, and adhesives.



Based on the Site inspection and our understanding of the historical use of the Site, no sources of acrylonitrile are present within the Work Area.

5.2 Arsenic

Arsenic is a silver-grey, brittle, crystalline solid at room temperature. Arsenic compounds are used as wood preservatives, insecticides, herbicides, in metal alloys and are naturally present in certain minerals and soils.

Based on the Site inspection, arsenic containing materials are present in limited quantities in the form of small amounts of pressure treated wood products in the exterior yards of the units.

5.3 Asbestos

Asbestos is a group of fibrous minerals that occur naturally in soil and rock. Asbestos fibres were formerly used (primarily for their insulating and fireproofing properties) in roofing shingles, ceiling tiles, floor tiles, asbestos cement products, gaskets, insulation, paper products, and other building insulating products.

GHD conducted an Asbestos Survey (Refer to Section 6 of this report for findings) to investigate suspected asbestos containing materials (ACM) within the Work Area.

5.4 Benzene

Benzene is a colourless liquid at room temperature, with a sweet odour. Benzene and benzene-containing compounds are components of crude oil and refined petroleum products such as gasoline and are present in coal, natural gas, and other materials. Benzene is a component of other chemicals that are used to make plastics, resins, nylon, synthetic rubber, lubricants, detergents, pharmaceuticals, and other materials.

At the time of the Site inspection, painted surfaces were observed, and plumbing and HVAC systems had some plastic components. Some of these materials may contain benzene in a stable form.

5.5 Coke Oven Emissions

Coke oven emissions are the airborne constituents of the by-product created by destructive distillation of coal and petroleum, and are a mixture of coal tar, coal tar pitch, volatiles, creosote, polycyclic aromatic hydrocarbons (PAHs), and metals. Coke oven emissions are typically associated with the production of steel and coal processing/coke manufacture.

Impacts to the Site from coke ovens are not suspected.

5.6 Ethylene Oxide

Ethylene oxide is a colourless gas at room temperature and a liquid at 12 degrees Celsius (°C). It is used in the manufacture of ethylene glycol, surfactants, fumigants, fungicides, and petroleum demulsifiers.



Based on the Site inspection, and historical use of the Site, no sources of ethylene oxide are present within the Work Area.

5.7 Isocyanates

Isocyanates are compounds that react with compounds containing alcohol (hydroxyl) groups to produce polyurethane polymers, which are components of polyurethane foams, thermoplastic elastomers, spandex fibres, and polyurethane paints. Isocyanates are raw materials used to manufacture polyurethane products, such as polyurethane foam, insulation materials, and surface coatings.

Based on the Site inspection, and historical use of the Site, no sources of isocyanates are present within the Work Area.

5.8 Lead

Lead is a naturally occurring bluish-grey metal that is solid at room temperature. Lead is used in the manufacture of batteries, ammunition, solder, paint, and piping.

Based on Site observations, it is assumed that lead is present in electrical and plumbing equipment (solder), electrical conduit, batteries, older paints, and packing in older cast iron piping system materials at the Site.

A paint sampling program within the Work Area was conducted by GHD as part of the DS Survey, and is presented in Section 7 of this report.

5.9 Mercury

Mercury is a naturally occurring metal. At room temperature, it is a shiny, silver-coloured odourless liquid. When heated it becomes a colourless, odourless gas. Mercury is used in fluorescent and 'non-red' neon light tubes, electrical switches, thermostats, dental fillings, certain batteries, some measuring devices (barometers, manometers, hygrometers, and thermometers), some manufacturing processes, older paints, and is present in some roofing products and tars at low concentrations.

Based on the Site inspection, mercury may be present in the fluorescent tubes occasionally observed at the Site, in the batteries used in emergency lighting systems. Mercury may be present in manometers and thermometers used in the heating system.

A mercury sampling program was not conducted by GHD as part of the DS Survey.

5.10 Silica

Silica is a transparent to grey odourless powder or crystal at room temperature. It occurs widely in nature as sand, quartz, flint, and diatomite. Silica is used in the manufacture of glass, ceramics, abrasives, water treatment products, cosmetics, insecticides, paint, and foods. Silica is also used as a drying agent or preservative. Crystalline silica materials also are used in the production of concrete, cement, acoustic ceiling tiles, and ceramic tiles which are used for construction purposes.



Based on the Site inspection, crystalline silica is present in the brick, mortar, ceramic tiles, poured concrete walls, concrete block walls and in the fibreglass insulation found in the Work Area.

5.11 Vinyl Chloride

Vinyl chloride is a colourless, flammable gas at room temperature with a mild, sweet odour. Vinyl chloride is a degradation product of organic industrial/commercial solvents such as tetrachloroethylene (PCE) and trichloroethylene (TCE) which are used as degreasing and dry cleaning agents. One use of vinyl chloride is in the manufacture of polyvinyl chloride (PVC), which is used in many plastic products including plastic pipe, electrical cable insulation, plumbing and conduit fixtures, and clothing, upholstery, roofing, and flooring materials.

At the time of the Site inspection, GHD observed some PVC (a stable form of vinyl chloride) piping or plastic fixtures in the Work Area.

6. Asbestos Survey

6.1 Asbestos Sampling Methodology

An Asbestos Survey was conducted by GHD and samples were collected of materials in the work area in accordance with bulk asbestos sampling protocols and procedures provided in O. Reg. 278/05, Designated Substances in the Workplace: A Guide to the Asbestos Regulation for Construction Projects, Buildings and Repair Operations (MOL, revised May 2011), other guidance documents and experience.

6.2 Sampling

In order to verify that specific building materials do not contain asbestos, samples were collected of each suspect material identified in the Work Area. The number of bulk samples for each type of material was determined by the requirements provided in Table 1 of O. Reg. 278 (Number of Bulk Samples Required). For this investigation, the entire Site was considered to be a single building, containing a number of townhouse units. Samples were identified in the laboratory reports as (townhouse number)-(building material)-(sample).

Bulk sample sets (86 total distinct building materials) with a total of 275 samples were submitted for analysis to determine asbestos type and, if present, the relative concentration. Photographs of typical sampled materials are provided in Appendix A.

The samples were submitted under Chain-of-Custody protocol to Paracel Laboratories Ltd. (Paracel) in Ottawa, Ontario for asbestos analysis. Paracel is an accredited and certified laboratory. Samples of friable materials were submitted for analysis by polarized-light microscopy (PLM) using Method EPA/600/R-93/116.

6.3 Results

The detailed description of the samples collected, and the analytical data is provided in Table 6.1: Summary of Asbestos Bulk Samples - Vinyl Floor Samples and Table 6.2: Summary of



Asbestos Bulk Samples – Building Materials. The analytical laboratory report, Paracel Report #1924394, has been provided in Appendix B.

Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample Identification	Sample Location	Sample Description	Asbestos Content
538-F2-A	Unit 538 2nd floor, bathroom	VSF with pink, blue and gray stones	None Detected
65-F2-A	Unit 65 2nd floor, bathroom	VSF with pink, blue and gray stones	None Detected
488-F2-D	Unit 488 2nd floor, bathroom	VSF with pink, blue and gray stones	None Detected
498-F3-G	Unit 498 1st floor, kitchen	VFT, 12"x12" tan with brown chunks	None Detected
83-F3-M	Unit 83 1st floor, laundry room	VFT, 12"x12" tan with brown chunks	None Detected
820-F3-A	Unit 820 1st floor, hallway	VFT, 12"x12" tan with brown chunks	None Detected
828-F4-A	Unit 828 2nd floor, northeast bedroom	VFT, 12"x12" beige with brown streaks	None Detected
518-F4-K	Unit 518 1st floor, hallway	VFT, 12"x12" beige with brown streaks	None Detected
357-F4-A	Unit 357 1st floor, entrance	VFT, 12"x12" beige with brown streaks	None Detected
828-F5-A	Unit 828 2nd floor, bathroom	VSF, speckled brown and beige	None Detected
828-F5-B	Unit 828 2nd floor, bathroom	VSF, speckled brown and beige	None Detected
828-F5-C	Unit 828 2nd floor, bathroom	VSF, speckled brown and beige	None Detected
492-F6-A	Unit 492 Staircase	Vinyl stair tread, brown with beige streaks	None Detected
532-F6-I	Unit 532 Staircase	Vinyl stair tread, brown with beige streaks	None Detected
828-F6-I	Unit 828 Staircase	Vinyl stair tread, brown with beige streaks	None Detected
329-F7-E	Unit 329 2nd floor, bathroom	VSF, beige and tan stones	None Detected
498-F7-B	Unit 498 2nd floor, bathroom	VSF, beige and tan stones	None Detected
526-F7-C	Unit 526 1st floor, kitchen	VSF, beige and tan stones	None Detected
301-F8-A	Unit 301 1st floor, laundry room	VFT, 12"x12" brown with tan chunks	None Detected



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample	Sample Location	Sample Description	Asbestos Content
Identification			
301-F8-B	Unit 301 1st floor, laundry room	VFT, 12"x12" brown with tan chunks	None Detected
301-F8-C	Unit 301 1st floor, laundry room	VFT, 12"x12" brown with tan chunks	None Detected
518-F9-G	Unit 518 1st floor, laundry room	VFT, 12"x12" beige with tan chunks	None Detected
305-F9-B	Unit 305 1st floor, kitchen	VFT, 12"x12" beige with tan chunks	None Detected
488-F9-O	Unit 488 1st floor, laundry room	VFT, 12"x12" beige with tan chunks	None Detected
305-F10-A	Unit 305 2nd floor, southeast bedroom	VFT strips - mock brown wood	None Detected
305-F10-B	Unit 305 2nd floor, southeast bedroom	VFT strips - mock brown wood	None Detected
305-F10-C	Unit 305 2nd floor, southeast bedroom	VFT strips - mock brown wood	None Detected
512-F11-B	Unit 512 1st floor, laundry room	VSF mock ceramic tile, textured beige	None Detected
83-F11-C	Unit 83 2nd floor, bathroom	VSF mock ceramic tile, textured beige	None Detected
305-F11-A	Unit 305	VSF mock ceramic tile, textured beige	None Detected
323-F12-D	Unit 323 1st floor, southwest living room	VFT, 12"x12" 50/50 beige and brown streaks	None Detected
329-F12-J	Unit 329 1.5 floor, landing	VFT, 12"x12" 50/50 beige and brown streaks	None Detected
540-F12-B	Unit 540 2nd floor, southeast bedroom	VFT, 12"x12" 50/50 beige and brown streaks	None Detected
486-F13-H	Unit 486 2nd floor, closet	VFT, 12"x12", beige with not very many brown flecks	None Detected
319-F13-B	Unit 319 1st floor, laundry room	VFT, 12"x12", beige with not very many brown flecks	None Detected
339-F13-K	Unit 339 1st floor, kitchen	VFT, 12"x12", beige with not very many brown flecks	None Detected
64-F14-C	Unit 63 1st floor, kitchen	VSF, mock 12"x12" ceramic tile, tan and brown	None Detected
311-F14-A	Unit 311 1st floor, living room	VSF, mock 12"x12" ceramic tile, tan and brown	None Detected



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample Identification	Sample Location	Sample Description	Asbestos Content
359-F14-A	Unit 359 2nd floor, bathroom	VSF, mock 12"x12" ceramic tile, tan and brown	None Detected
311-F15-A	Unit 311 1st floor, kitchen	VSF, mock 12x12" ceramic tiles, dark brown	None Detected
311-F15-B	Unit 311 1st floor, kitchen	VSF, mock 12x12" ceramic tiles, dark brown	None Detected
311-F15-C	Unit 311 1st floor, kitchen	VSF, mock 12x12" ceramic tiles, dark brown	None Detected
81-F16-F	Unit 81 1st floor, entrance	VFT12"x12", grey with streaks	None Detected
520-F16-C	Unit 520 1st floor, laundry	VFT12"x12", grey with streaks	None Detected
315-F16-A	Unit 315 1st floor, entrance	VFT12"x12", grey with streaks	None Detected
315-F17-A	Unit 315 1st floor, laundry room	VFT, 12"x36", mock 3-12"x12" ceramic tiles, brown slate	None Detected
315-F17-B	Unit 315 1st floor, laundry room	VFT, 12"x36", mock 3-12"x12" ceramic tiles, brown slate	None Detected
315-F17-C	Unit 315 1st floor, laundry room	VFT, 12"x36", mock 3-12"x12" ceramic tiles, brown slate	None Detected
319-F19-A	Unit 319 2nd floor, bathroom	VSF, pink and beige stones	None Detected
319-F19-B	Unit 319 2nd floor, bathroom	VSF, pink and beige stones	None Detected
319-F19-C	Unit 319 2nd floor, bathroom	VSF, pink and beige stones	None Detected
323-F20-A	Unit 323 1st floor, entrance	VSF, white textured	None Detected
323-F20-B	Unit 323 1st floor, entrance	VSF, white textured	None Detected
323-F20-C	Unit 323 1st floor, entrance	VSF, white textured	None Detected
325-F21-B	Unit 325 2nd floor, bathroom	VSF, white mock tiles	None Detected
490-F21-C	Unit 490 2nd floor, bathroom	VSF, white mock tiles	None Detected
81-F21-D	Unit 81 2nd floor, bathroom	VSF, white mock tiles	None Detected
325-F22-A	Unit 325 1st floor, living room	VFT strips, vinyl mock hardwood flooring, dark grey	None Detected
339-F22-A	Unit 339 1st floor, living room	VFT strips, vinyl mock hardwood flooring, dark grey	None Detected



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample Identification	Sample Location	Sample Description	Asbestos Content
492-F22-B	Unit 492 1st floor, laundry room	VFT strips, vinyl mock hardwood flooring, dark grey	None Detected
325-F23-A	Unit 325 Staircase	Vinyl stair tread, black	None Detected
325-F23-B	Unit 325 Staircase	Vinyl stair tread, black	None Detected
325-F23-C	Unit 325 Staircase	Vinyl stair tread, black	None Detected
510-F24-G	Unit 510 1st floor, laundry	VSF, mock tiles, brown	None Detected
325-F24-A	Unit 325 2nd floor, bathroom	VSF, mock tiles, brown	None Detected
506-F24-E	Unit 506 1st floor, laundry	VSF, mock tiles, brown	None Detected
532-F25-C	Unit 532 1st floor, hallway	VFT strips, vinyl mock hardwood flooring, cherry brown	None Detected
532-F25-E	Unit 532 1st floor, hallway	VFT strips, vinyl mock hardwood flooring, cherry brown	None Detected
532-F25-A	Unit 532 1st floor, hallway	VFT strips, vinyl mock hardwood flooring, cherry brown	None Detected
532-F27-A	Unit 500 1st floor, kitchen	VFT, 12"x12" off white with beige flecks	None Detected
500-F27-B	Unit 500 1st floor, kitchen	VFT, 12"x12" off white with beige flecks	None Detected
500-F27-C	Unit 500 1st floor, kitchen	VFT, 12"x12" off white with beige flecks	None Detected
500-F28-A	Unit 500 2nd floor, bathroom	VFT, 12"x12" beige with almost green	None Detected
500-F28-B	Unit 500 2nd floor, bathroom	VFT, 12"x12" beige with almost green	None Detected
500-F28-C	Unit 500 2nd floor, bathroom	VFT, 12"x12" beige with almost green	None Detected
534-F29-A	Unit 534 1st floor, laundry room	VSF, mock 12"x12" brown tile	None Detected
534-F29-B	Unit 534 1st floor, laundry room	VSF, mock 12"x12" brown tile	None Detected
534-F29-C	Unit 534 1st floor, laundry room	VSF, mock 12"x12" brown tile	None Detected



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample Identification	Sample Location	Sample Description	Asbestos Content
512-F30-C	Unit 512 1st floor, living room	VFT strips, vinyl mock hardwood flooring, grey with knots	None Detected
502-F30-B	Unit 502 1st floor, kitchen	VFT strips, vinyl mock hardwood flooring, grey with knots	None Detected
510-F30-C	Unit 510 1st floor, kitchen	VFT strips, vinyl mock hardwood flooring, grey with knots	None Detected
488-F32-B	Unit 488 1st floor, living room	VFT, 9"x9" olive with white flecks	10% Chrysotile Asbestos
524-F32-D	Unit 524 1st floor, closet	VFT, 9"x9" olive with white flecks	Not Analyzed Stop Positive*
329-F32-E	Unit 329 1.5 floor, landing	VFT, 9"x9" olive with white flecks	Not Analyzed Stop Positive*
490-F33-A	Unit 490 2nd floor, southwest bedroom	VFT strips, Vinyl mock hardwood flooring, maple wood	None Detected
490-F33-B	Unit 490 2nd floor, southwest bedroom	VFT strips, Vinyl mock hardwood flooring, maple wood	None Detected
490-F33-C	Unit 490 2nd floor, southwest bedroom	VFT strips, Vinyl mock hardwood flooring, maple wood	None Detected
357-F34-A	Unit 357 1st floor, living room	VFT strips, Vinyl mock hardwood flooring, honey oak	None Detected
522-F34-D	Unit 522 1st floor, kitchen	VFT strips, Vinyl mock hardwood flooring, honey oak	None Detected
327-F34-B	Unit 327 1st floor, kitchen	VFT strips, Vinyl mock hardwood flooring, honey oak	None Detected
496-F35-A	Unit 496 1st floor, entrance	VSF, mock 4.5"x4.5" ceramic tile, textured white	None Detected
496-F35-B	Unit 496 1st floor, entrance	VSF, mock 4.5"x4.5" ceramic tile, textured white	None Detected
355-F35-A	Unit 355 1st floor, entrance	VSF, mock 4.5"x4.5" ceramic tile, textured white	None Detected
496-F36-A	Unit 496 1st floor, hallway	VFT, mock 12"x12" ceramic tile, white and black with flower	None Detected
496-F36-B	Unit 496 1st floor, hallway	VFT, mock 12"x12" ceramic tile, white and black with flower	None Detected
496-F36-C	Unit 496 1st floor, hallway	VFT, mock 12"x12" ceramic tile, white and black with flower	None Detected



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample Identification	Sample Location	Sample Description	Asbestos Content
496-F37-A	Unit 496 1st floor, living room	VFT, mock 12"x12" ceramic tile, blue diamond pattern	None Detected
496-F37-B	Unit 496 1st floor, living room	VFT, mock 12"x12" ceramic tile, blue diamond pattern	None Detected
496-F37-C	Unit 496 1st floor, living room	VFT, mock 12"x12" ceramic tile, blue diamond pattern	None Detected
496-F38-A	Unit 496	VFT, mock 12"x12" ceramic tiles, beige with light streak	None Detected
327-F38-B	Unit 327 basement, northeast bedroom	VFT, mock 12"x12" ceramic tiles, beige with light streak	None Detected
329-F38-C	Unit 329 1.5 floor, landing	VFT, mock 12"x12" ceramic tiles, beige with light streak	None Detected
522-F39-A	Unit 522 2nd floor bathroom	VSF, mock pink and beige textured 9"x9" ceramic tile	None Detected
522-F39-B	Unit 522 2nd floor bathroom	VSF, mock pink and beige textured 9"x9" ceramic tile	None Detected
522-F39-C	Unit 522 2nd floor bathroom	VSF, mock pink and beige textured 9"x9" ceramic tile	None Detected
520-F40-A	Unit 520 1st floor, laundry room	VFT, mock 12"x12" ceramic tile, blue with squares	None Detected
333-F40-B	Unit 333 0.5 floor, entrance	VFT, mock 12"x12" ceramic tile, blue with squares	None Detected
520-F40-C	Unit 520 1st floor, laundry room	VFT, mock 12"x12" ceramic tile, blue with squares	None Detected
520-F41-A	Unit 520 2nd floor, bathroom	VSF, mock 12x12" ceramic tiles, beige with tan	None Detected
520-F41-B	Unit 520 2nd floor, bathroom	VSF, mock 12x12" ceramic tiles, beige with tan	None Detected
520-F41-C	Unit 520 2nd floor, bathroom	VSF, mock 12x12" ceramic tiles, beige with tan	None Detected
520-F42-A	Unit 520 1st floor, laundry room	VFT, mock 12"x12" ceramic tile, beige with center diamond	None Detected
520-F42-B	Unit 520 1st floor, laundry room	VFT, mock 12"x12" ceramic tile, beige with center diamond	None Detected
520-F42-C	Unit 520 1st floor, laundry room	VFT, mock 12"x12" ceramic tile, beige with center diamond	None Detected
510-F43-A	Unit 510 1st floor kitchen	VFT, mock 3-12"x12" ceramic tile, beige and tan textured	None Detected
510-F43-B	Unit 510 1st floor kitchen	VFT, mock 3-12"x12" ceramic tile, beige and tan textured	None Detected



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample Identification	Sample Location	Sample Description	Asbestos Content
510-F43-C	Unit 510 1st floor kitchen	VFT, mock 3-12"x12" ceramic tile, beige and tan textured	None Detected
524-F44-A	Unit 524 1st floor, kitchen	VSF, mock 9"x9" ceramic tile, beige with streaks	None Detected
524-F44-B	Unit 524 1st floor, kitchen	VSF, mock 9"x9" ceramic tile, beige with streaks	None Detected
524-F44-C	Unit 524 1st floor, kitchen	VSF, mock 9"x9" ceramic tile, beige with streaks	None Detected
355-F45-A	Unit 355 2nd floor, bathroom	VSF, mock 9"x9" ceramic tile, beige and tan textured	None Detected
345-F45-B	Unit 345 2nd floor, bathroom	VSF, mock 9"x9" ceramic tile, beige and tan textured	None Detected
345-F45-D	Unit 345 2nd floor, bathroom	VSF, mock 9"x9" ceramic tile, beige and tan textured	None Detected
524-F46-A	Unit 524 1st floor, entrance	VSF, mock ceramic tile, beige and tan textured	None Detected
524-F46-B	Unit 524 1st floor, entrance	VSF, mock ceramic tile, beige and tan textured	None Detected
524-F46-C	Unit 524 1st floor, entrance	VSF, mock ceramic tile, beige and tan textured	None Detected
339-F47-A	Unit 339 2nd floor, bathroom	VSF, mock 6"x6" ceramic tile, beige and tan	None Detected
339-F47-B	Unit 339 2nd floor, bathroom	VSF, mock 6"x6" ceramic tile, beige and tan	None Detected
524-F47-A	Unit 524 1st floor, bathroom	VSF, mock 6"x6" ceramic tile, beige and tan	None Detected
532-F48-A	Unit 532 2nd floor, northeast bedroom	VFT, 12"x12" with mock 4"x4" pink/beige tiles	None Detected
532-F48-B	Unit 532 2nd floor, northeast bedroom	VFT, 12"x12" with mock 4"x4" pink/beige tiles	None Detected
532-F48-C	Unit 532 2nd floor, northeast bedroom	VFT, 12"x12" with mock 4"x4" pink/beige tiles	None Detected
327-F49-A	Unit 327 0.5 floor, entrance	VSF, mock 12"x12" brown tiles	None Detected
327-F49-B	Unit 327 0.5 floor, entrance	VSF, mock 12"x12" brown tiles	None Detected
327-F49-C	Unit 327 0.5 floor, entrance	VSF, mock 12"x12" brown tiles	None Detected
327-F50-A	Unit 327	VFT strip, Vinyl mock hardwood maple wood	None Detected



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample Identification	Sample Location	Sample Description	Asbestos Content
	1st floor, living room		
327-F50-B	Unit 327 1st floor, living room	VFT strip, Vinyl mock hardwood maple wood	None Detected
327-F50-C	Unit 327 1st floor, living room	VFT strip, Vinyl mock hardwood maple wood	None Detected
327-F51-A	Unit 327 2nd floor, bathroom	VSF, mock 12"x12" ceramic tiles with big beige and pink stones	None Detected
327-F51-B	Unit 327 2nd floor, bathroom	VSF, mock 12"x12" ceramic tiles with big beige and pink stones	None Detected
327-F51-C	Unit 327 2nd floor, bathroom	VSF, mock 12"x12" ceramic tiles with big beige and pink stones	None Detected
327-F52-A	Unit 327 Basement southwest bedroom	VFT strip, vinyl mock hardwood floor, brown and beige	None Detected
327-F52-B	Unit 327 Basement southwest bedroom	VFT strip, vinyl mock hardwood floor, brown and beige	None Detected
327-F52-C	Unit 327 Basement southwest bedroom	VFT strip, vinyl mock hardwood floor, brown and beige	None Detected
333-F53-A	Unit 333 1st floor, kitchen	VFT, 12"x12" mock ceramic tile, brown with olive green pattern	None Detected
333-F53-B	Unit 333 1st floor, kitchen	VFT, 12"x12" mock ceramic tile, brown with olive green pattern	None Detected
333-F53-C	Unit 333 1st floor, kitchen	VFT, 12"x12" mock ceramic tile, brown with olive green pattern	None Detected
333-F54-A	Unit 333 2nd floor, bathroom	VSF, 3"x3" mock white tiles with tulip pattern	None Detected
333-F54-B	Unit 333 2nd floor, bathroom	VSF, 3"x3" mock white tiles with tulip pattern	None Detected
333-F54-C	Unit 333 2nd floor, bathroom	VSF, 3"x3" mock white tiles with tulip pattern	None Detected
333-F55-A	Unit 333 Basement, bathroom	VSF, tan and beige pebbles	None Detected
335-F55-B	Unit 335	VSF, tan and beige pebbles	None Detected
63-F55-B	Unit 63 1st floor, entrance	VSF, tan and beige pebbles	None Detected
335-F56-A	Unit 335	VFT, 9"x9" dark brown	6% Chrysotile Asbestos



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample Identification	Sample Location	Sample Description	Asbestos Content
	1.5 level, landing		
335-F56-B	Unit 335 2nd floor, bathroom	VFT, 9"x9" dark brown	Not Analyzed Stop Positive*
335-F56-C	Unit 335 2nd floor, bathroom	VFT, 9"x9" dark brown	Not Analyzed Stop Positive*
335-F57-A	Unit 335 2nd floor, bathroom	VFT, 12"x12" beige tiles with diamond design	None Detected
335-F57-B	Unit 335 2nd floor, bathroom	VFT, 12"x12" beige tiles with diamond design	None Detected
335-F57-C	Unit 335 2nd floor, bathroom	VFT, 12"x12" beige tiles with diamond design	None Detected
335-F58-A	Unit 335 Basement, laundry room	VFT, mock 12"x12" brown, white and beige tile	None Detected
335-F58-B	Unit 335 Basement, laundry room	VFT, mock 12"x12" brown, white and beige tile	None Detected
335-F58-C	Unit 335 Basement, laundry room	VFT, mock 12"x12" brown, white and beige tile	None Detected
333-F59-A	Unit 333 1st floor, living room	VFT strip, Vinyl mock hardwood flooring, beige with grey	None Detected
333-F59-B	Unit 333 1st floor, living room	VFT strip, Vinyl mock hardwood flooring, beige with grey	None Detected
333-F59-C	Unit 333 1st floor, living room	VFT strip, Vinyl mock hardwood flooring, beige with grey	None Detected
337-F60-A	Unit 337 Staircase	Vinyl stair tread, white	None Detected
337-F60-B	Unit 337 Staircase	Vinyl stair tread, white	None Detected
337-F60-C	Unit 337 Staircase	Vinyl stair tread, white	None Detected
337-F61-A	Unit 337 2nd floor, bathroom	VSF, beige squares and rectangles with blue accent	None Detected
337-F61-B	Unit 337 2nd floor, bathroom	VSF, beige squares and rectangles with blue accent	None Detected
337-F61-C	Unit 337 2nd floor, bathroom	VSF, beige squares and rectangles with blue accent	None Detected
337-F62-A	Unit 337 1.5 floor, landing	VFT, mock 12"x12" ceramic tiles grey blotches	None Detected
337-F62-B	Unit 337 1.5 floor, landing	VFT, mock 12"x12" ceramic tiles grey blotches	None Detected



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample	Sample Location	Sample Description	Asbestos Content
Identification			
337-F62-C	Unit 337 1.5 floor, landing	VFT, mock 12"x12" ceramic tiles grey blotches	None Detected
337-F63-A	Unit 337 Basement southeast bedroom	VFT, mock 12"x12" ceramic tiles, blue and white	None Detected
337-F63-B	Unit 337 Basement southeast bedroom	VFT, mock 12"x12" ceramic tiles, blue and white	None Detected
337-F63-C	Unit 337 Basement southeast bedroom	VFT, mock 12"x12" ceramic tiles, blue and white	None Detected
65-F64-A	Unit 65 1st floor, kitchen	VFT, 9"x9", beige with small brown flecks	5% Chrysotile Asbestos
65-F64-B	Unit 65 1st floor, kitchen	VFT, 9"x9", beige with small brown flecks	Not Analyzed Stop Positive*
65-F64-C	Unit 65 1st floor, kitchen	VFT, 9"x9", beige with small brown flecks	Not Analyzed Stop Positive*
361-F65-A	Unit 361 1st floor, living room	VFT, 12"x12" white with grey flecks	None Detected
361-F65-B	Unit 361 1st floor, living room	VFT, 12"x12" white with grey flecks	None Detected
361-F65-C	Unit 361 1st floor, living room	VFT, 12"x12" white with grey flecks	None Detected
355-F66-A	Unit 355 2nd floor, hallway	VFT, mock 12"x12" ceramic tiles, beige with four squares	None Detected
355-F66-B	Unit 355 2nd floor, hallway	VFT, mock 12"x12" ceramic tiles, beige with four squares	None Detected
355-F66-C	Unit 355 2nd floor, hallway	VFT, mock 12"x12" ceramic tiles, beige with four squares	None Detected
339-F67-A	Unit 339 2nd floor, laundry room	VSF beige with black specks	None Detected
339-F67-B	Unit 339 2nd floor, laundry room	VSF beige with black specks	None Detected
339-F67-C	Unit 339 2nd floor, laundry room	VSF beige with black specks	None Detected
339-F68-A	Unit 339 2nd floor, bedroom	VSF, 12"x12" beige with brown streaks	2% Chrysotile Asbestos
339-F68-B	Unit 339 2nd floor, bedroom	VSF, 12"x12" beige with brown streaks	Not Analyzed Stop Positive*
339-F68-C	Unit 339 2nd floor, bedroom	VSF, 12"x12" beige with brown streaks	Not Analyzed Stop Positive*
492-F69-A	Unit 492	VFT strips, Vinyl mock hardwood flooring, maple/oak	None Detected



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample Identification	Sample Location	Sample Description	Asbestos Content
	1st floor, living room		
492-F69-B	Unit 492 1st floor, living room	VFT strips, Vinyl mock hardwood flooring, maple/oak	None Detected
492-F69-C	Unit 492 1st floor, living room	VFT strips, Vinyl mock hardwood flooring, maple/oak	None Detected
498-F70-A	Unit 498 1st floor, living room	VFT strips, Vinyl mock hardwood floor, cherry brown	None Detected
498-F70-B	Unit 498 1st floor, living room	VFT strips, Vinyl mock hardwood floor, cherry brown	None Detected
498-F70-C	Unit 498 1st floor, living room	VFT strips, Vinyl mock hardwood floor, cherry brown	None Detected
63-F72-A	Unit 63 1st floor, laundry room	VFT, mock 3-12"x12" ceramic tiles, brown	None Detected
63-F72-B	Unit 63 1st floor, laundry room	VFT, mock 3-12"x12" ceramic tiles, brown	None Detected
63-F72-C	Unit 63 1st floor, laundry room	VFT, mock 3-12"x12" ceramic tiles, brown	None Detected
83-F73-A	Unit 83 1st floor, kitchen	VFT, mock 3-12"x12" ceramic tiles, brown	None Detected
83-F73-B	Unit 83 1st floor, kitchen	VFT, mock 3-12"x12" ceramic tiles, brown	None Detected
83-F73-C	Unit 83 1st floor, kitchen	VFT, mock 3-12"x12" ceramic tiles, brown	None Detected
524-F74-A	Unit 524 1st floor, entrance	VSF, 9"x9" mock ceramic tiles brown	None Detected
524-F74-B	Unit 524 1st floor, entrance	VSF, 9"x9" mock ceramic tiles brown	None Detected
524-F74-C	Unit 524 1st floor, entrance	VSF, 9"x9" mock ceramic tiles brown	None Detected
492-F75-A	Unit 492 2nd floor, bathroom	VSF, mock 12"x12" ceramic tile, dark brown and beige	None Detected
492-F75-B	Unit 492 2nd floor, bathroom	VSF, mock 12"x12" ceramic tile, dark brown and beige	None Detected
492-F75-C	Unit 492 2nd floor, bathroom	VSF, mock 12"x12" ceramic tile, dark brown and beige	None Detected
486-F77-A	Unit 486 2nd floor, bathroom	VSF, mock 12"x12" ceramic tile, textured dark beige	None Detected
486-F77-B	Unit 486 2nd floor, bathroom	VSF, mock 12"x12" ceramic tile, textured dark beige	None Detected
486-F77-C	Unit 486 2nd floor, bathroom	VSF, mock 12"x12" ceramic tile, textured dark beige	None Detected



Table 6.1 Summary of Asbestos Bulk Samples - Vinyl Floor Samples

Sample Identification	Sample Location	Sample Description	Asbestos Content
500-F78-A	Unit 500 1st floor, kitchen	VSF, mock 12"x12" ceramic tile dark tan	None Detected
500-F78-B	Unit 500 1st floor, kitchen	VSF, mock 12"x12" ceramic tile dark tan	None Detected
500-F78-C	Unit 500 1st floor, kitchen	VSF, mock 12"x12" ceramic tile dark tan	None Detected

Notes:

Minimum Detection Limit (MDL) of the analytical method, 0.5 percent.

*Indicates an asbestos content of 0.5 percent or greater

VSF - Vinyl Sheet Flooring

VFT - Vinyl Floor Tile

Table 6.2 Summary of Asbestos Bulk Samples - Building Materials

Sample Identification	Sample Location	Sample Description	Asbestos Content
490-C2-A	Unit 490 2nd floor, southwest bedroom	Stipple ceiling	None Detected
490-C2-B	Unit 490 2nd floor, southwest bedroom	Stipple ceiling	None Detected
490-C2-C	Unit 490 2nd floor, southwest bedroom	Stipple ceiling	None Detected
1-828-W1-B	Unit 828 2nd floor, northeast bedroom	Drywall Joint Compound	1% Chrysotile Asbestos
1-820-W1-A	Unit 820	Drywall Joint	Not Analyzed
	2nd floor, northeast bedroom	Compound	Stop Positive*
2-305-W1-F	Unit 305 2nd floor, northwest bedroom	Drywall Joint Compound	Not Analyzed Stop Positive*
2-319-W1-J	Unit 319	Drywall Joint	Not Analyzed
	1st floor, hallway	Compound	Stop Positive*
3-345-W1-K	Unit 345	Drywall Joint	Not Analyzed
	2nd floor, bedroom	Compound	Stop Positive*
3-353-W1-H	Unit 353	Drywall Joint	Not Analyzed
	1st floor, living room	Compound	Stop Positive*
4-311-W1-H	Unit 311	Drywall Joint	Not Analyzed
	1st floor, living room	Compound	Stop Positive*
4-323-W1-K	Unit 323	Drywall Joint	Not Analyzed
	1st floor, hallway	Compound	Stop Positive*
5-500-W1-N	Unit 500	Drywall Joint	Not Analyzed
	1st floor, living room	Compound	Stop Positive*
5-492-W1-S	Unit 492	Drywall Joint	1% Chrysotile
	1st floor, living room	Compound	Asbestos



Table 6.2 Summary of Asbestos Bulk Samples - Building Materials

Sample	Sample Location	Sample Description	Asbestos Content
Identification	Sample Location	Sample Description	Aspesios Content
6-496-W1-R	Unit 496	Drywall Joint	Not Analyzed
	1st floor, living room	Compound	Stop Positive*
6-488-W1-Q	Unit 488	Drywall Joint	Not Analyzed
	1st floor, living room	Compound	Stop Positive*
7-520-W1-T	Unit 520	Drywall Joint	Not Analyzed
	1st floor, hallway	Compound	Stop Positive*
7-510-W1-Y	Unit 510	Drywall Joint	Not Analyzed
	1st floor, living room	Compound	Stop Positive*
8-538-W1-A	Unit 538	Drywall Joint	Not Analyzed
	1st floor, living room	Compound	Stop Positive*
8-59-W1-D	Unit 59	Drywall Joint Compound	Not Analyzed Stop Positive*
0 00 W4 DD	2nd floor, bedroom	·	·
9-63-W1-DD	Unit 63 1st floor, laundry room	Drywall Joint Compound	Not Analyzed Stop Positive*
9-71-W1-KK	Unit 71	Drywall Joint	Not Analyzed
9-71-VV 1-KK	1st floor, kitchen	Compound	Stop Positive*
10-83-W1-II	Unit 83	Drywall Joint	Not Analyzed
10 00 11 11	1st floor, living room	Compound	Stop Positive*
10-81-W1-HH	Unit 81	Drywall Joint	Not Analyzed
	1st floor, living room	Compound	Stop Positive*
538-W3-A	Unit 538	Exterior gypsum board	None Detected
	1st floor, living room		
490-W3-H	Unit 490	Exterior gypsum board	None Detected
	1st floor, living room		
341-W3-D	Unit 341	Exterior gypsum board	None Detected
	2nd floor, northeast bedroom		
E73-W4-A	Unit 73	Exterior pointing	None Detected
E365-W4-B	Unit 365	Exterior pointing	None Detected
E305-W4-B	Unit 305	Exterior pointing	None Detected
E486-W4-A	Unit 486	Exterior pointing	None Detected
E492-W4-B	Unit 492	Exterior pointing	None Detected
E498-W4-A	Unit 498	Exterior pointing	None Detected
E502-W5-B	Unit 502	Concrete wall parge	None Detected
E83-W5-A	Unit 83	Concrete wall parge	None Detected
E305-W5-B	Unit 305	Concrete wall parge	None Detected
526-M1-Y	Unit 526	Black tar paper	None Detected
	1st floor, living room		_
828-M1-B	Unit 828	Black tar paper	None Detected
	2nd floor, southwest bedroom		
325-M1-K	Unit 325	Black tar paper	None Detected
	2nd floor, southeast bedroom		



Table 6.2 Summary of Asbestos Bulk Samples – Building Materials

Sample Identification	Sample Location	Sample Description	Asbestos Content
820-M2-A	Unit 820 Crawl space	Black tar on styrofoam	10% Chrysotile Asbestos
323-M2-B	Unit 323 Crawl space	Black tar on styrofoam	Not Analyzed Stop Positive*
496-M2-B	Unit 496 Crawl space	Black tar on styrofoam	Not Analyzed Stop Positive*
327-M3-A	Unit 327	Concrete parge	None Detected
327-M3-B	Unit 327	Concrete parge	None Detected
327-M3-C	Unit 327	Concrete parge	None Detected
337-M4-A	Unit 337 Basement, bedroom	Cellulose paper wrap	5% Chrysotile Asbestos
355-M4-B	Unit 355 1st floor, laundry room	Cellulose paper wrap	Not Analyzed Stop Positive*
355-M4-C	Unit 355 1st floor, laundry room	Cellulose paper wrap	Not Analyzed Stop Positive*
67-M5-A	Unit 67 1st floor, entrance	Vermiculite	1% Tremolite Asbestos
67-M5-B	Unit 67 1st floor, entrance	Vermiculite	Not Analyzed Stop Positive*
67-M5-C	Unit 67 1st floor, entrance	Vermiculite	Not Analyzed Stop Positive*
355-M6-A	Unit 355 1st floor, laundry room	Cement elbow	35% Chrysotile Asbestos
355-M6-B	Unit 355 1st floor, laundry room	Cement elbow	Not Analyzed Stop Positive*
355-M6-C	Unit 355 1st floor, laundry room	Cement elbow	Not Analyzed Stop Positive*
E65-M11	Unit 65	Malleable White caulking (windows and doors)	None Detected
E504-M11-E	Unit 504	Malleable White caulking (windows and doors)	None Detected
E337-M11	Unit 337	Malleable White caulking (windows and doors)	1% Chrysotile Asbestos
E542-M12	Unit 542	Hard White caulking (decorative concrete parge)	None Detected
E534-M12	Unit 534	Hard White caulking	None Detected
E820-M12	Unit 820	(decorative concrete parge)	None Detected



Table 6.2 Summary of Asbestos Bulk Samples - Building Materials

Sample Identification	Sample Location	Sample Description	Asbestos Content
	ion Limit (MDL) of the analytical methoestos content of 0.5 percent or grea		

O. Reg. 278 defines Asbestos Containing Materials (ACMs) as a materials containing 0.5 percent by dry weight or more of asbestos fibres. The following building materials were identified as ACMs:

- W1/Drywall Joint Compound | Friable, white colored drywall joint compound found on walls and ceilings in units 828 and 492. This material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent.
 - Visually similar material was identified in all units in all buildings, accordingly, all drywall joint compound (approximately 21,000 m²) is assumed to be ACM. The material was generally in good condition.
- F32/Vinyl Floor Tile | Non-friable vinyl floor tile (9"x9", olive with white flecks) submitted from Unit 488 were identified to contain Chrysotile asbestos at concentrations above 0.5 percent.
 - Visually similar flooring was identified in unit 492 (closet), unit 524 (closet) and unit 329 (stairs landing); all (approximately 50 m²) visually similar materials should be treated as ACM.
- F56/Vinyl Floor Tile | Non-friable vinyl floor tile (9"x9", dark brown) submitted from Unit 355 (stair landing) were identified to contain Chrysotile asbestos at concentrations above 0.5 percent.
 - Visually similar flooring was identified in unit 355 (bathroom); all (approximately 15 m²) visually similar materials should be treated as ACM.
- F64/Vinyl Floor Tile | Non-friable vinyl floor tile (9"x9", beige with small brown flecks) submitted from Unit 65 (kitchen) (approximately 35 m²) were identified to contain Chrysotile asbestos at concentrations above 0.5 percent. No visually similar flooring was identified in any other units.
- F68/Vinyl Floor Tile | Non-friable vinyl floor tile (12"x12", beige with brown streaks) submitted from Unit 339 (entire second floor, approximately 70 m²) were identified to contain Chrysotile asbestos at concentrations above 0.5 percent. No visually similar flooring was identified in any other units.
- M2/Tar seal on foundation walls | Non-Friable black tar was present in the crawlspaces, used to
 affix Styrofoam panels to the concrete block walls, and as damp proofing on the interior of the
 block walls. This material was identified to contain Chrysotile asbestos at concentrations above
 0.5 percent.
 - Visually similar material was identified in all units in all buildings, accordingly, all (approximately 2500 m²) black tar on foundation walls and on white Styrofoam panels is assumed to be ACM. The material was generally in good condition.
- M4/Cellulose Pipe Wrap | Non-Friable pipe wrap pipe insulation was identified in a pipe on the 1st level of Unit 355 (laundry room). Visually similar material was identified in Unit 337 (basement bedroom). There was approximately 6 meters (m) of this material, and the material was identified to contain Chrysotile asbestos at concentrations above 0.5 percent.



- M5 / Vermiculite | Vermiculite was identified as insulation around a pipe in the entrance of Unit
 67. The vermiculite was identified to contain Tremolite asbestos at concentrations above
 0.5 percent. The Client should treat all vermiculite found at the Site as ACM.
- M6 / Cement Elbow | 3 cement elbows submitted from Unit 355 (laundry room) were identified to contain Chrysotile asbestos at concentrations above 0.5 percent. The Client should treat all cement elbows found at the Site as ACM.
- M11 / White exterior caulking | While the submitted samples of the exterior caulking around the
 windows and doors from Unit 504 and Unit 65 were determined to not contain asbestos, a
 visually similar sample collected from Unit 337 was identified to contain Chrysotile asbestos at
 concentrations above 0.5 percent. Accordingly, the Client should treat all white caulking found at
 the Site (approximately 3200 m) as ACM.

7. Lead Paint Sampling

7.1 Lead Surface Coating Regulations and Standards

The Canadian Federal Government has been limiting the amount of lead in paint to 0.5 percent (5,000 ppm) since 1975. The Surface Coating Materials Regulation (SOR/2005-109 dated April 19, 2005), reduced the concentration of Lead in paint and surface coating materials to 600 ppm or 0.06 percent. The act was revised again 2010 Hazardous Products Act, to define Lead Containing Paint (LCP) as paint containing 0.009 percent (90 ppm) of lead. The general industry practice is to consider paint with 0.009 percent (90 ppm) or more as lead-containing paint (LCP) and paint with 0.5 percent (5000 ppm) or more as lead-based paint.

Recent EACO guidance suggests that paint containing low levels (less than 0.1 percent/1,000 parts per million) provides a low risk to building occupants when aggressive activities such as sanding, cutting, and hot work are not conducted on painted materials. However, demolition activities are considered to be an 'aggressive activity'.

O. Reg. 490/09 regulates lead in industrial workplaces as a designated substance. The Ontario Ministry of Labour (MOL) Occupational Exposure Level (OEL) for workers to inorganic lead is 0.05 milligrams per cubic metre (mg/m³) for an eight-hour time-weighted average exposure. If lead is present in paint or other materials and there may be potential worker exposure at unacceptable levels, a Lead Control Program is required by the MOL to manage occupational exposures, including for renovation and demolition activities. The Guideline for Lead on Construction Projects (MOL, April 2011) provides guidance on measures to be implemented to control potential lead hazards during maintenance, renovation, or demolition activities, which involve the disturbance of materials with elevated lead levels. Lead-containing waste with certain concentrations is also regulated in accordance with O. Reg. 347/90, General – Waste Management.

7.2 Paint Sampling

There were 50 paint samples collected from the walls and ceilings found in the Work Area. With only minor exceptions, the painted surfaces were in good condition (i.e., paint was generally well adhered to walls and ceilings) at the time of the inspection.



The paint chip samples were submitted under Chain-of-Custody protocol to Paracel Laboratories Ltd. (Paracel) in Ottawa, Ontario for lead concentration analysis. Paracel is an accredited and certified laboratory. Samples of paint chips were submitted for analysis by Inductively Coupled Plasma - Optical Emission Spectroscopy (ICP-OES) using Ministry of Environment, Conservation and Parks (MECP) Method E3470.

The results of the analysis are summarized in the table below.

7.3 Paint Chip Testing

Samples of the paint applied to the floor and walls were collected and analyzed for lead content and are summarized in Table 7.1: Summary of Lead in Paint Chips Samples, below. The laboratory analytical reports (Paracel Reports # 1924228) are provided in Appendix C.

Table 7.1 Summary of Lead in Paint Chip Samples

Sample Identification	Sample Locations	Sample Descriptions	Lead Concentration (ug/g or ppm)
828-W-P1-cream	Unit 828 - 2nd floor Hallway closet paint	Cream paint	127
301-W-P2-White	Unit 301 - 2nd floor Southwest bedroom paint	White paint	154
305-W-P3-brown	Unit 305 - 2nd floor Northwest bedroom paint	Brown paint	<20
59-WP4-beige	Unit 59 - 2nd floor Bedroom paint	Beige paint	89
311-W-P5-white	Unit 311 - 1st floor Northwest bedroom paint	White paint	<20
315-W-P6-beige	Unit 315 - 1st floor Kitchen paint	Beige paint	207
315-W-P7-white	Unit 315 - 1st floor Living room paint	White paint	<20
319-W-P8-eggshell	Unit 319 - 1st floor Living room paint	Eggshell paint	164
319-W-P9-Green	Unit 319 - 2nd floor Northwest bedroom paint	Green paint	<20
319-W-P10-beige	Unit 319 - 2nd floor Northwest bedroom paint	Beige paint	289
319-W-P11-purple	Unit 319 - 2nd floor Southwest bedroom paint	Purple paint	<20
M8-W-P12-beige	Mechanical Room #8 paint	Beige paint	<20
325-W-P13-beige	Unit 325 - 1st floor Living room paint	Beige paint	<20
325-W-P14-blue grey	Unit 325 - 1st floor Living room paint	Blue / grey paint	<20
498-W-P13 white	Unit 498 – 1st floor Kitchen paint	White Paint	<20



Table 7.1 Summary of Lead in Paint Chip Samples

Sample Identification	Sample Locations	Sample Descriptions	Lead Concentration (ug/g or ppm)
498-W-P16-bright blue	Unit 498- 2nd floor Bathroom paint	Bright blue paint	<20
486-W-P17-bright blue	Unit 486 - 2nd floor Southwest bedroom paint	Bright blue paint	100
488-W-P18-beige	Unit 488 - 2nd floor Northeast bedroom paint	Beige paint	289
490-W-P19-baby blue	Unit 490 - 1st floor Living room paint	Baby blue paint	172
490-W-P20-blue grey	Unit 490 - 2nd floor Southwest bedroom paint	Blue grey paint	<20
496-W-P21-beige	Unit 496 - 2nd floor Bedroom paint	Beige paint	164
518-W-P22-brown	Unit 518 - 2nd floor Hallway paint	Brown paint	<20
516-W-P23-purple	Unit 516 - 2nd floor Southwest bedroom paint	Purple paint	<20
516-W-P24-blue	Unit 516 - 2nd floor Northeast bedroom paint	Blue paint	325
512-W-P25-eggshell	Unit 512 - 1st floor Hallway paint	Eggshell paint	<20
510-W-P26-white	Unit 510 - 2nd floor Northeast bedroom	White paint	<20
524-W-P27-brown	Unit 524 - 1st floor Living room paint	Brown paint	<20
526-W-P28-white	Unit 526 - 1st floor Living room paint	White paint	333
532-W-P29-eggshell	Unit 532 - 1st floor Laundry room paint	Eggshell paint	155
532-W-P31-purple	Unit 532 - 2nd floor Northeast bedroom	Purple paint	235
534-W-P32-beige	Unit 534 - 2nd floor Southeast bedroom	Beige paint	80
327-W-P33-white	Unit 327 - 1st floor Living room paint	White paint	<20
329-W-P34-beige	Unit 329 - 1st floor Living room paint	Beige paint	283
333-W-P35-beige	Unit 333 - 2nd floor Bedroom paint	Beige paint	112
335-W-P36-beige	Unit 335 - 1st floor Living room paint	Beige paint	345



Table 7.1 Summary of Lead in Paint Chip Samples

Sample Identification	Sample Locations	Sample Descriptions	Lead Concentration (ug/g or ppm)
337-W-P37-grey	Unit 337 - 1st floor Living room paint	Grey paint	<20
81-W-P37-grey	unit 81 - 2nd floor Northwest bedroom paint	Grey paint	<20
83-W-P38-grey	Unit 83 - 1st floor Living room paint	Grey paint	<20
71-T-P39-green	Unit 71 - 2nd floor Northeast bedroom paint	Green paint	410
65-W-P40-white	Unit 65 - 1st floor Kitchen paint	White paint	187
63-C-P41-white	Unit 63 - 1st floor Kitchen ceiling paint	White paint	180
542-W-P3-white	Unit 542 - 1st floor Living room paint	White paint	396
361-W-P5-blue	Unit 361 - 2nd floor Northeast bedroom paint	Blue paint	<20
359-W-P6-pink	Unit 359 - 2nd floor Northeast bedroom paint	Pink paint	35
359-W-P7-blue	Unit 359 - 2nd floor Southwest bedroom paint	Blue paint	<20
355-W-P8-white	Unit 355 - 1st floor Living room paint	White paint	124
355-W-P9-yellow	Unit 355 - 1st floor Kitchen paint	Yellow paint	<20
353-W-P10-beige	Unit 353 - 1st floor Living room paint	Beige paint	<30
351-W-P11-white	Unit 351 - 1st floor Living room paint	White paint	<20
486-W-P18-tan	Unit 486 - 1st floor Living room paint	Tan paint	<20

Notes:

ųg/g - micrograms per gram

ppm - parts per million

All 50 paint samples had lead concentrations lower than 5,000 ppm, as such no sampled paint is considered to be a lead-based paint.

None of the 50 submitted paint samples contained lead between 1,000 ppm and 5,000 ppm, as such no sampled paint is considered to be a high-level lead-containing paint.

^{*} Indicates a lead concentration of 5,000 ppm or greater, which has been defined as lead-based paint



There were 21 of 50 submitted paint samples containing lead between 90 ppm and 1,000 ppm, as such these samples are considered to be low-level lead-containing paints.

There were 29 of 50 submitted paint samples containing lead below 90 ppm, or below the analysis method detection limit (20 ppm). These paints are not considered lead containing paints.

It is also assumed that lead is present in electrical connections and plumbing (solder), electrical conduit, batteries, and packing in older cast iron piping system materials at the Site.

Accordingly, a Lead Management Plan should be prepared for the Site prior to initiating demolition activities.

8. Conclusions/Recommendations

The following conclusions/recommendations were developed based on the results of the DS Survey:

- 1. Notification and/or a copy of the limited DS Survey Report should be made available to employees and Contractors working in the Work Area.
- GHD completed an Asbestos Survey in the Work Area in accordance with O. Reg. 278/05 as part of the DS Survey. GHD's Asbestos Survey identified the following building materials as ACMs:
 - W1/Drywall Joint Compound | Friable, white colored drywall joint compound found on walls and ceilings in the building. Visually similar material was identified in all units in all buildings, accordingly, all drywall joint compound is assumed to be ACM. The material was generally in good condition.
 - F32/Vinyl Floor Tile | Non-friable vinyl floor tile (9" x 9", olive with white flecks) submitted from Unit 488. Visually similar flooring was identified in unit 492 (closet), unit 524 (closet) and unit 329 (stairs landing); these visually similar materials should also be treated as ACM.
 - F56/Vinyl Floor Tile | Non-friable vinyl floor tile (9" x 9", dark brown) submitted from Unit 355 (stair landing). No visually similar flooring was identified in any other units.
 - F64/Vinyl Floor Tile | Non-friable vinyl floor tile (9" x 9", beige with small brown flecks) submitted from Unit 65 (kitchen). No visually similar flooring was identified in any other units.
 - F68/Vinyl Floor Tile | Non-friable vinyl floor tile (12" x 12", beige with brown streaks) submitted from Unit 339 (2nd floor). No visually similar flooring was identified in any other units.
 - M2/Tar seal on foundation walls | Non-Friable black tar was present in the crawlspaces, used to affix Styrofoam panels to the concrete block walls, and as damp proofing on the interior of the block walls. Visually similar material was identified in all units in all buildings, accordingly, all black tar on exterior walls and on white Styrofoam panels is assumed to be ACM. The material was generally in good condition.



- M4/Cellulose Pipe Wrap | Non-Friable pipe wrap pipe insulation was identified on pipes in Unit 355 (1st floor laundry). There was approximately 5 meters (m) of this material.
 Approximately 3 m of a visually similar material was identified in Unit 337 (basement bedroom).
- M5/Vermiculite | Vermiculite was identified as insulation around a pipe in the entrance of Unit 67. The vermiculite was identified to contain Tremolite asbestos at concentrations above 0.5 percent. The Client should treat all vermiculite found at the Site as ACM.
- M6/Cement Elbow | Three cement elbows submitted from Unit 355 (laundry room). The Client should treat all cement elbows found at the Site as ACM.
- M11/White exterior caulking | While the submitted samples of the exterior caulking around the windows and doors from Unit 504 and Unit 65 were determined to not contain asbestos, a visually similar sample collected from Unit 337 was identified to contain Chrysotile asbestos at concentrations above 0.5 percent. Accordingly, the Client should treat all white caulking found at the Site as ACM.

A contractor, certified for asbestos abatement, should be retained to complete asbestos abatement services prior to demolition of the buildings. Handling and disposal of all ACM should be conducted in accordance with O. Reg. 278/05.

The inspection was destructive in nature; holes were made in the surface of exposed materials in representative areas of the building as determined by the assessor. It is however a random sampling, and there may be hazardous building materials present in areas that were not inspected. If hidden materials that may be potential ACM are discovered during maintenance, further inspection, or demolition activities, work should cease until samples are analysed. Alternatively, potential or suspected ACM can be managed as ACM for handling and disposal purposes.

3. There were 21 of 50 submitted paint samples containing lead between 90 ppm and 1,000 ppm, as such these samples are considered to be low-level lead-containing paints (LCP). For the purposes of maintenance or demolition activities, all paint on surfaces should be treated as LCP. The observed paint was noted to be generally well adhered to the substrate; some peeling paint was observed.

It is assumed that lead is present in electrical and plumbing services (solder), electrical conduit, batteries, and packing in older cast iron piping system materials at the Site.

A Lead Management Plan (LMP) should be prepared in accordance with 2011 Ontario Ministry of Labour (MOL) and 2014 Environmental Abatement Council of Ontario (EACO) guidelines. The LMP would protect workers during demolition and maintenance activities which will disturb lead containing materials, until all lead containing materials are removed from the Site.

Building materials containing lead in surface coatings are typically characterized and disposed of as non-hazardous solid waste. However, the paint data should be provided to the disposal facility to provide confirmation of acceptance prior to shipping materials. Alternatively, a representative bulk sample of demolition debris could be collected and submitted for Toxicity Characteristic Leaching Procedure (TCLP) to provide confirmation that the material would not be classified as D008 leachate toxic hazardous waste.



- 4. Silica is present in footings, concrete block and poured concrete foundation walls, in plaster and texture coat, and in the fiberglass insulation in the Work Area. The Guideline for Silica on Construction Projects (MOL, April 2011) should be used to develop appropriate procedures to implement during maintenance or demolition activities which disturb silica containing materials and may generate silica containing dust.
- 5. Man-made mineral fibre materials are present in fibreglass insulation on some of the pipes, and in fiberglass batt insulation found in the walls and attic space in the Work Area. Measures should be taken to control man-made mineral fibre dust hazard during renovation or demolition. The Guideline for Silica on Construction Projects (MOL, April 2011) should be used to develop appropriate procedures to implement during maintenance or demolition activities that will disturb man-made mineral fibre materials in the Work Area.
- 6. No significant water intrusion or suspect mould growth was observed in above grade structures in the Work Area.

Limitations

The field work component of the DS Survey was conducted by GHD on June 5 through 7, 2019. The DS Survey was completed to identify designated substances and hazardous building materials within the area defined as 'the Work Area' as identified by the Client.

GHD does not typically collect samples of building materials if said collection has the potential to compromise the integrity of the Building or its components or materials are not readily accessible. These building materials include interior of fire doors, refractory materials within boilers, gasket materials, and below grade structures. In addition, GHD does not sample energized equipment due to the inherent electrical hazards. These include components or wiring within motors, high voltage wiring, elevators (including brakes), lights or other electrical equipment and fixtures.

This DS Survey was conducted in a manner consistent with the level of care and skill exercised by members of the profession, and was based upon information made available to GHD representatives at the time of this Assessment. GHD has analysed and evaluated the information collected during this investigation using applicable engineering and industrial hygiene techniques and principles. It is however a random sampling, and there may be hazardous building materials present in areas that were not inspected.

Reliance or use of this report by any third party without explicit authorization from GHD and the Client does not make said third party a third party beneficiary to GHD's contract with the Client. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

As applicable, the owner/operator of the subject Site is responsible for corrective or remedial action required and disclosure of any information obtained during this assessment or information contained in this report.



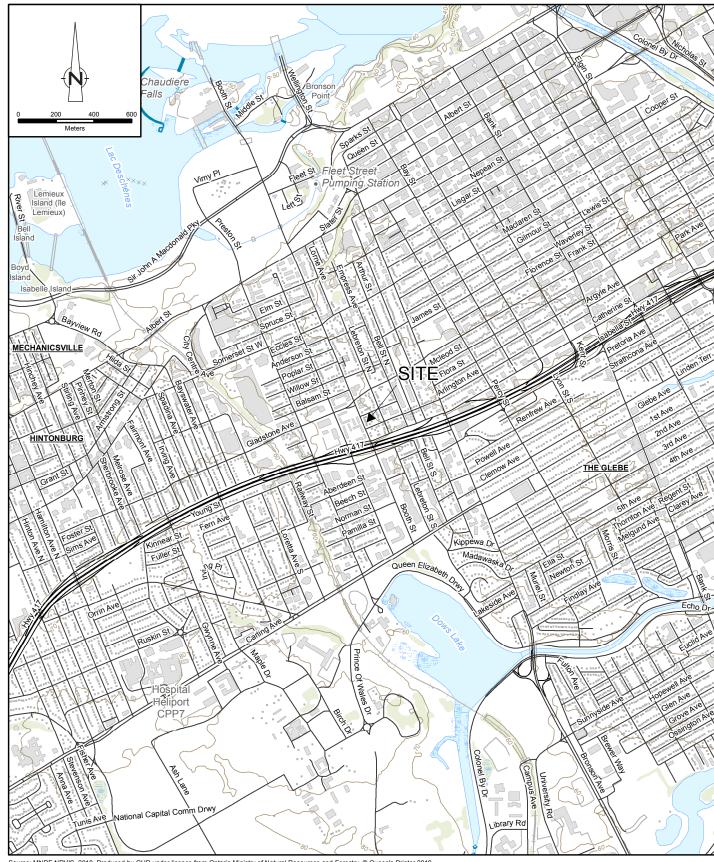
All of Which is Respectfully Submitted,

GHD

Scott Wallis, B. Sc.

(for)

Luke Lopers, P. Eng.



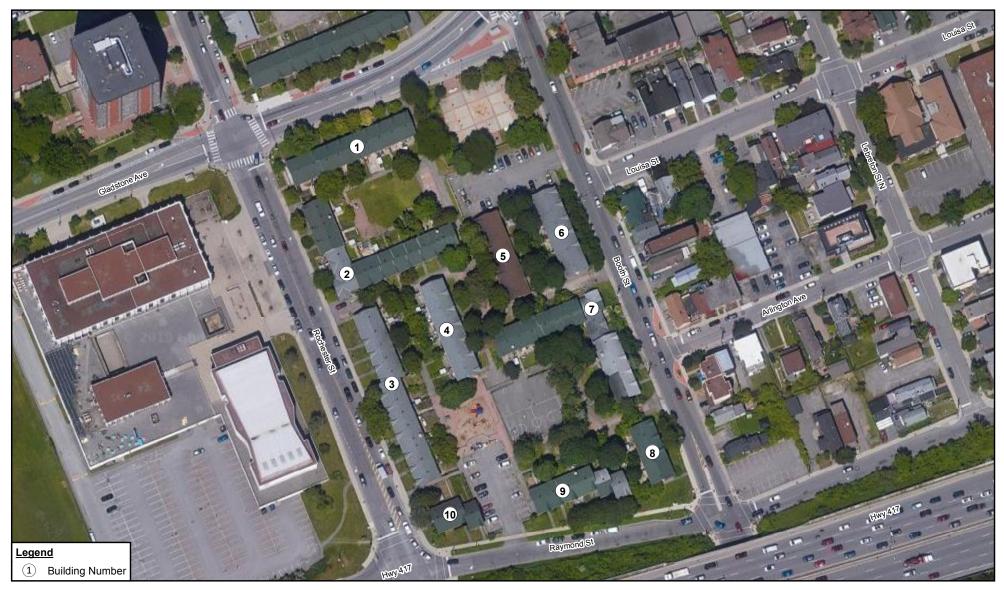
Source: MNRF NRVIS, 2018. Produced by GHD under licence from Ontario Ministry of Natural Resources and Forestry, © Queen's Printer 2019. Coordinate System: NAD 1983 UTM Zone 18N



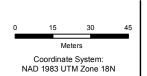
OTTAWA COMMUNITY HOUSING CORPORATION 818 GLADSTONE COMPLEX, OTTAWA, ONTARIO DESIGNATED SUBSTANCE SURVEY 11196110-E4 Jun 26, 2019

SITE LOCATION MAP

FIGURE 1



Source: Image ©2019 Google, Imagery date: 2018/06/08







OTTAWA COMMUNITY HOUSING CORPORATION 818 GLADSTONE COMPLEX, OTTAWA, ONTARIO DESIGNATED SUBSTANCE SURVEY 11196110-E4 Jun 26, 2019

SITE PLAN

FIGURE 2

Appendices

Appendix A Site Photographs

Appendix A Site Photographs

Submitted as separate file

Appendix B Analytical Laboratory Reports - Asbestos



300 - 2319 St. Laurent Blvd 300 - 2319 St. Laurent Blvd 1-800-749-1947 www.paracellabs.com

Certificate of Analysis

GHD Limited (Ottawa)

179 Colonnade Road Suite 400

Ottawa, ON KOA 2WO Attn: Zoe Jeaurond Client PO: 73516118 Project: 11196110-E4

Custody:

Davesel ID

Report Date: 19-Jun-2019 Order Date: 11-Jun-2019

Order #: 1924394

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Client ID

Paracel ID	Client ID
1924394-01	538-F2-A
1924394-02	65-F2-G
1924394-03	488-F2-D
1924394-04	498-F3-G
1924394-05	83-F3-M
1924394-06	820-F3-A
1924394-07	828-F4-A
1924394-08	518-F4-K
1924394-09	357-F4-A
1924394-10	828-F5-A
1924394-11	828-F5-B
1924394-12	828-F5-C
1924394-13	492-F6-H
1924394-14	828-F6-A
1924394-15	532-F6-I
1924394-16	329-F7-E
1924394-17	498-F7-B
1924394-18	526-F7-C
1924394-19	301-F8-A
1924394-20	301-F8-B
1924394-21	301-F8-C
1924394-22	518-F9-G
1924394-23	305-F9-B
1924394-24	488-F9-O
1924394-25	305-F10-A
1924394-26	305-F10-B

Approved By:

8 iaz

Emma Diaz

Senior Analyst

Client: GHD Limited (Ottawa) Order Date: 11-Jun-2019 Client PO: 73516118 Project Description: 11196110-E4

Client PO: 73516118	
1924394-27	305-F10-C
1924394-28	514-F11-B
1924394-29	83-F11-C
1924394-30	305-F11-A
1924394-31	323-F12-D
1924394-32	329-F12-J
1924394-33	540-F12-B
1924394-34	486-F13-H
1924394-35	319-F13-B
1924394-36	339-F13-K
1924394-37	63-F14-C
1924394-38	311-F14-A
1924394-39	359-F14-A
1924394-40	311-F15-A
1924394-41	311-F15-B
1924394-42	311-F15-C
1924394-43	81-F16-F
1924394-44	520-F16-C
1924394-45	315-F16-A
1924394-46	315-F17-A
1924394-47	315-F17-B
1924394-48	315-F17-C
1924394-49	319-F18-A
1924394-50	319-F18-B
1924394-51	319-F18-C
1924394-52	323-F20-A
1924394-53	323-F20-B
1924394-54	323-F20-C
1924394-55	325-F21-B
1924394-56	490-F21-C
1924394-57	81-F21-D
1924394-58	325-F22-A
1924394-59	339-F22-A
1924394-60	492-F22-B
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1924394-65	325-F24-A
1924394-66	506-F24-E
1924394-67	532-F25-C
1924394-68	532-F25-E
1924394-69	532-F25-A
1924394-70	500-F27-B

Certificate of Analysis

Report Date: 19-Jun-2019



Certificate of AnalysisReport Date: 19-Jun-2019Client:GHD Limited (Ottawa)Order Date: 11-Jun-2019Client PO:73516118Project Description: 11196110-E4

Client PO: 73516118	
1924394-71	500-F27-A
1924394-72	500-F27-C
1924394-73	500-F28-A
1924394-74	500-F28-B
1924394-75	500-F28-C
1924394-76	534-F29-A
1924394-77	534-F29-B
1924394-78	534-F29-C
1924394-79	502-F30-A
1924394-80	514-F30-B
1924394-81	510-F30-C
1924394-82	488-F32-B
1924394-83	524-F32-D
1924394-84	329-F32-E
1924394-85	490-F33-A
1924394-86	490-F33-B
1924394-87	490-F33-C
1924394-88	357-F34-A
1924394-89	522-F34-D
1924394-90	327-F34-B
1924394-91	496-F35-B
1924394-92	496-F35-A
1924394-93	355-F35-A
1924394-94	496-F36-A
1924394-95	496-F36-B
1924394-96	496-F36-C
1924394-97	496-F37-A
1924394-98	496-F37-B
1924394-99	496-F37-C
1924394-AA	496-F38-A
1924394-AB	327-F38-B
1924394-AC	329-F38-C
1924394-AD	522-F39-A
1924394-AE	522-F39-B
1924394-AF	522-F39-C
1924394-AG	520-F40-A
1924394-AH	333-F40-B
1924394-AI	520-F40-C
1924394-AJ	520-F41-A
1924394-AK	520-F41-B
1924394-AL	520-F41-C
1924394-AM	520-F42-A
1924394-AN	520-F42-B
1924394-AO	520-F42-C

Order #: 1924394

Report Date: 19-Jun-2019 Order Date: 11-Jun-2019

Project Description: 11196110-E4

Client PO: 73516118	
1924394-AP	510-F43-A
1924394-AQ	510-F43-B
1924394-AR	510-F43-C
1924394-AS	524-F44-A
1924394-AT	524-F44-B
1924394-AU	524-F44-C
1924394-AV	355-F45-A
1924394-AW	345-F45-B
1924394-AX	345-F45-D
1924394-AY	524-F46-A
1924394-AZ	524-F46-B
1924394-BA	524-F46-C
1924394-BB	339-F47-A
1924394-BC	339-F47-B
1924394-BD	524-F47-A
1924394-BE	532-F48-A
1924394-BF	532-F48-B
1924394-BG	532-F48-C
1924394-BH	327-F49-A
1924394-BI	327-F49-B
1924394-BJ	327-F49-C
1924394-BK	327-F50-A
1924394-BL	327-F50-B
1924394-BM	327-F50-C
1924394-BN	327-F51-A
1924394-BO	327-F51-B
1924394-BP	327-F51-C
1924394-BQ	327-F52-A
1924394-BR	327-F52-B
1924394-BS	327-F52-C
1924394-BT	333-F53-A
1924394-BU	333-F53-B
1924394-BV	333-F53-C
1924394-BW	333-F54-A
1924394-BX	333-F54-B
1924394-BY	333-F54-C
1924394-BZ	333-F55-A
1924394-CA	335-F55-B
1924394-CB	63-F55-B
1924394-CC	335-F56-A
1924394-CD	335-F56-B
1924394-CE	335-F56-C
1924394-CF	335-F57-A
1924394-CG	335-F57-B



Certificate of AnalysisReport Date: 19-Jun-2019Client:GHD Limited (Ottawa)Order Date: 11-Jun-2019Client PO:73516118Project Description: 11196110-E4

Client PO: 73516118	
1924394-CH	335-F37-C
1924394-CI	335-F58-A
1924394-CJ	335-F58-B
1924394-CK	335-F58-C
1924394-CL	333-F59-A
1924394-CM	333-F59-B
1924394-CN	333-F59-C
1924394-CO	337-F60-A
1924394-CP	337-F60-B
1924394-CQ	337-F60-C
1924394-CR	337-F61-A
1924394-CS	337-F61-B
1924394-CT	337-F61-C
1924394-CU	337-F62-A
1924394-CV	337-F62-B
1924394-CW	337-F62-C
1924394-CX	337-F63-A
1924394-CY	337-F63-B
1924394-CZ	337-F63-C
1924394-DA	65-F64-A
1924394-DB	65-F64-B
1924394-DC	65-F64-C
1924394-DD	361-F65-A
1924394-DE	361-F65-B
1924394-DF	361-F65-C
1924394-DG	355-F66-A
1924394-DH	355-F66-B
1924394-DI	355-F66-C
1924394-DJ	339-F67-A
1924394-DK	339-F67-B
1924394-DL	339-F67-C
1924394-DM	339-F68-A
1924394-DN	339-F68-B
1924394-DO	339-F68-C
1924394-DP	492-F69-A
1924394-DQ	492-F69-B
1924394-DR	492-F69-C
1924394-DS	498-F70-A
1924394-DT	498-F70-B
1924394-DU	498-F70-C
1924394-DV	63-F72-A
1924394-DW	63-F72-B
1924394-DX	63-F72-C
1924394-DY	83-F73-A



Certificate of AnalysisReport Date: 19-Jun-2019Client:GHD Limited (Ottawa)Order Date: 11-Jun-2019Client PO:73516118Project Description: 11196110-E4

Client PO: 73516118	
1924394-DZ	83-F73-B
1924394-EA	83-F73-C
1924394-EB	524-F74-A
1924394-EC	524-F74-B
1924394-ED	524-F74-C
1924394-EE	492-F75-A
1924394-EF	492-F75-B
1924394-EG	492-F75-C
1924394-EH	486-F77-A
1924394-EI	486-F77-B
1924394-EJ	486-F77-C
1924394-EK	500-F78-A
1924394-EL	500-F78-B
1924394-EM	500-F78-C
1924394-EN	526-M1-Y
1924394-EO	828-M1-B
1924394-EP	325-M1-K
1924394-EQ	538-W3-A
1924394-ER	490-W3-H
1924394-ES	341-W3-D
1924394-ET	355-M6-A
1924394-EU	355-M6-B
1924394-EV	355-M6-C
1924394-EW	337-M4-A
1924394-EX	355-M4-B
1924394-EY	355-M4-C
1924394-EZ	67-M5-A
1924394-FA	67-M5-B
1924394-FB	67-M5-C
1924394-FC	490-C2-A
1924394-FD	490-C2-B
1924394-FE	490-C2-C
1924394-FF	327-M3-A
1924394-FG	327-M3-B
1924394-FH	327-M3-C
1924394-FI	820-M2-A
1924394-FJ	323-M2-D
1924394-FK	496-M2-B
1924394-FL	E73-W4-B
1924394-FM	E365-W4-A
1924394-FN	E305-W4-B
1924394-FO	E486-W4-A
1924394-FP	E492-W4-B
1924394-FQ	E498-W4-A

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Project Description: 11196110-E4

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1924394-FR	E65-M11
1924394-FS	E504-M11-E
1924394-FT.1	E337-M11
1924394-FT.2	E337-M11
1924394-FU	E542-M12
1924394-FV.1	E534-M12
1924394-FV.2	E534-M12
1924394-FW.1	E820-M12
1924394-FW.2	E820-M12
1924394-FX	E502-W5-B
1924394-FY	E83-W5-A
1924394-FZ	E305-W5-B
1924394-GA.1	1-828-W1-B
1924394-GA.2	1-828-W1-B
1924394-GB	1-820-W1-A
1924394-GC	2-305-W1-F
1924394-GD	2-319-W1-J
1924394-GE	3-345-W1-K
1924394-GF	3-353-W1-H
1924394-GG	4-311-W1-H
1924394-GH	4-323-W1-K
1924394-GI	5-500-W1-N
1924394-GJ.1	5-492-W1-S
1924394-GJ.2	5-492-W1-S
1924394-GK	6-496-W1-R
1924394-GL	6-488-W1-Q
1924394-GM	7-520-W1-T
1924394-GN	7-510-W1-Y
1924394-GO	8-538-W1-A
1924394-GP	8-59-W1-D
1924394-GQ	9-63-W1-DD
1924394-GR	9-71-W1-KK
1924394-GS	10-83-W1-II
1924394-GT	10-81-W1-HH



Crder #: 1924394

MDL - 0.5%

Report Date: 19-Jun-2019 Order Date: 11-Jun-2019

Project Description: 11196110-E4

Client PO: 73516118

Asbestos, PLM Visual Estimation

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-01	07-Jun-19	Grey	VSF	No	Client ID: 538-F2-A	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-02	07-Jun-19	Grey	VSF	No	Client ID: 65-F2-G	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-03	07-Jun-19	Grey	VSF	No	Client ID: 488-F2-D	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-04	07-Jun-19	Tan	VFT	No	Client ID: 498-F3-G	
					Non-Fibers	100
1924394-05	07-Jun-19	Tan	VFT	No	Client ID: 83-F3-M	
					Non-Fibers	100
1924394-06	07-Jun-19	Tan	VFT	No	Client ID: 820-F3-A	
					Non-Fibers	100
1924394-07	07-Jun-19	Beige	VFT	No	Client ID: 828-F4-A	
					Non-Fibers	100
1924394-08	07-Jun-19	Beige	VFT	No	Client ID: 518-F4-K	
					Non-Fibers	100
1924394-09	07-Jun-19	Beige	VFT	No	Client ID: 357-F4-A	
					Non-Fibers	100



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-10	07-Jun-19	Beige	VSF	No	Client ID: 828-F5-A	
					Cellulose	25
					MMVF	5
					Non-Fibers	65
					Other fibers	5
1924394-11	07-Jun-19	Beige	VSF	No	Client ID: 828-F5-B	
					Cellulose	25
					MMVF	5
					Non-Fibers	65
					Other fibers	5
1924394-12	07-Jun-19	Beige	VSF	No	Client ID: 828-F5-C	
					Cellulose	25
					MMVF	5
					Non-Fibers	65
					Other fibers	5
1924394-13	07-Jun-19	Brown	Vinyl Stair Tread	No	Client ID: 492-F6-H	
					Non-Fibers	100
1924394-14	07-Jun-19	Brown	Vinyl Stair Tread	No	Client ID: 828-F6-A	
					Non-Fibers	100
1924394-15	07-Jun-19	Brown	Vinyl Stair Tread	No	Client ID: 532-F6-I	
					Non-Fibers	100
1924394-16	07-Jun-19	Beige	VSF	No	Client ID: 329-F7-E	
					Cellulose	25
					MMVF	5
					Non-Fibers	65
					Other fibers	5



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-17	07-Jun-19	19 Beige VSF No	No	Client ID: 498-F7-B		
					Cellulose	25
					MMVF	5
					Non-Fibers	65
					Other fibers	5
1924394-18	07-Jun-19	Beige	VSF	No	Client ID: 526-F7-C	
					Cellulose	25
					MMVF	5
					Non-Fibers	65
					Other fibers	5
1924394-19	07-Jun-19	Brown	VFT	No	Client ID: 301-F8-A	
					MMVF	10
					Non-Fibers	90
1924394-20	07-Jun-19	07-Jun-19 Brown VFT No	No	Client ID: 301-F8-B		
					MMVF	10
					Non-Fibers	90
1924394-21	07-Jun-19	Brown	VFT	No	Client ID: 301-F8-C	
					MMVF	10
					Non-Fibers	90
1924394-22	07-Jun-19	Beige	VFT	No	Client ID: 518-F9-G	
					Non-Fibers	100
1924394-23	07-Jun-19	Beige	VFT	No	Client ID: 305-F9-B	
					Non-Fibers	100
1924394-24	07-Jun-19	Beige	VFT	No	Client ID: 488-F9-O	
					Non-Fibers	100
1924394-25	07-Jun-19	Brown	VSF	No	Client ID: 305-F10-A	
					Non-Fibers	100



Asbestos, PLM Visual Estimation

Certificate of Analysis
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Client PO: 73516118 Project

MDL - 0.5%

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Conten
1924394-26	07-Jun-19	Brown	VSF	No	Client ID: 305-F10-B	
					Non-Fibers	100
1924394-27	07-Jun-19	Brown	VSF	No	Client ID: 305-F10-C	
					Non-Fibers	100
1924394-28	07-Jun-19	Beige	VSF	No	Client ID: 514-F11-B	
					Cellulose	30
					Non-Fibers	70
1924394-29	07-Jun-19	Beige	VSF	No	Client ID: 83-F11-C	
					Cellulose	30
					Non-Fibers	70
1924394-30	07-Jun-19	Beige	VSF	No	Client ID: 305-F11-A	
					Cellulose	30
					Non-Fibers	70
1924394-31	07-Jun-19	Beige	VFT	No	Client ID: 323-F12-D	
					Non-Fibers	99
					Other fibers	1
1924394-32	07-Jun-19	Beige	VFT	No	Client ID: 329-F12-J	
					Non-Fibers	100
1924394-33	07-Jun-19	Beige	VFT	No	Client ID: 540-F12-B	
					Non-Fibers	99
					Other fibers	1
1924394-34	07-Jun-19	Beige	VFT	No	Client ID: 486-F13-H	
					Non-Fibers	100
1924394-35	07-Jun-19	Beige	VFT	No	Client ID: 319-F13-B	
					Non-Fibers	100



Client PO: 73516118

LABORATORIES LTD.

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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-36	07-Jun-19	Beige	VFT	No	Client ID: 339-F13-K	
					Non-Fibers	100
1924394-37 07	07-Jun-19	Tan	VSF	No	Client ID: 63-F14-C	
					Cellulose	30
					Non-Fibers	70
1924394-38	07-Jun-19	Tan	VSF	No	Client ID: 311-F14-A	
					Cellulose	30
					Non-Fibers	70
1924394-39	07-Jun-19	Tan	VSF	No	Client ID: 359-F14-A	
					Cellulose	30
					Non-Fibers	70
1924394-40 07-Jun-19	Brown	VSF	No	Client ID: 311-F15-A		
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-41	07-Jun-19	Brown	VSF	No	Client ID: 311-F15-B	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-42	07-Jun-19	Brown	VSF	No	Client ID: 311-F15-C	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-43	07-Jun-19	Grey	VFT	No	Client ID: 81-F16-F	
					Non-Fibers	100
924394-44 07-Jun-19	07-Jun-19	Grey	VFT	No	Client ID: 520-F16-C	



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-45	07-Jun-19	Grey	VFT	No	Client ID: 315-F16-A	
					Non-Fibers	100
1924394-46	07-Jun-19	Brown	VSF	No	Client ID: 315-F17-A	
					Non-Fibers	100
924394-47 07-Jun-19	07-Jun-19	Brown	VSF	No	Client ID: 315-F17-B	
					Non-Fibers	100
1924394-48 07-Jun-19	07-Jun-19	Brown	VSF	No	Client ID: 315-F17-C	
					Non-Fibers	100
1924394-49	07-Jun-19	Beige	VSF	No	Client ID: 319-F18-A	
					MMVF	10
					Non-Fibers	90
924394-50 07-Jun-19	07-Jun-19	7-Jun-19 Beige VSF	VSF	No	Client ID: 319-F18-B	
					MMVF	10
					Non-Fibers	90
924394-51	07-Jun-19	Beige	VSF	No	Client ID: 319-F18-C	
					MMVF	10
					Non-Fibers	90
1924394-52	07-Jun-19	White	VSF	No	Client ID: 323-F20-A	
					Cellulose	30
					Non-Fibers	70
1924394-53	07-Jun-19	White	VSF	No	Client ID: 323-F20-B	
					Cellulose	30
					Non-Fibers	70
924394-54	07-Jun-19	White	VSF	No	Client ID: 323-F20-C	
					Cellulose	30
					Non-Fibers	70



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Project Description: 11196110-E4

Client PO: 73516118

MDL - 0.5%

Asbestos, PLM Visual Estimation

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Conten
1924394-55	07-Jun-19	White	VSF	No	Client ID: 325-F21-B	
					Non-Fibers	100
1924394-56	07-Jun-19	White	VSF	No	Client ID: 490-F21-C	
					Non-Fibers	100
1924394-57	07-Jun-19	White	VSF	No	Client ID: 81-F21-D	
					Non-Fibers	100
1924394-58	07-Jun-19	Grey	Vinyl Sheet Mock Wood	No	Client ID: 325-F22-A	
					MMVF	10
					Non-Fibers	90
1924394-59	07-Jun-19	Grey	Vinyl Sheet Mock Wood	No	Client ID: 339-F22-A	
					MMVF	10
					Non-Fibers	90
1924394-60	07-Jun-19	Grey	Vinyl Sheet Mock Wood	No	Client ID: 492-F22-B	
					MMVF	10
					Non-Fibers	90
1924394-61	07-Jun-19	Black	Vinyl Stair Tread	No	Client ID: 325-F23-A	
					Non-Fibers	100
1924394-62	07-Jun-19	Black	Vinyl Stair Tread	No	Client ID: 325-F23-B	
					Non-Fibers	100
1924394-63	07-Jun-19	Black	Vinyl Stair Tread	No	Client ID: 325-F23-C	
					Non-Fibers	100
1924394-64	07-Jun-19	Brown	VSF	No	Client ID: 510-F24-G	
					Cellulose	30
					Non-Fibers	70



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-65	07-Jun-19	Brown	VSF	No	Client ID: 325-F24-A	
					Cellulose	30
					Non-Fibers	70
1924394-66	07-Jun-19	Brown	VSF	No	Client ID: 506-F24-E	
					Cellulose	30
					Non-Fibers	70
1924394-67	07-Jun-19	Brown	VSF	No	Client ID: 532-F25-C	
					Non-Fibers	100
1924394-68	924394-68 07-Jun-19	Brown	VSF	No	Client ID: 532-F25-E	
				Non-Fibers	100	
1924394-69 07-Jun-19	Brown	VSF	No	Client ID: 532-F25-A		
					Non-Fibers	100
1924394-70	07-Jun-19	Off-white	VFT	No	Client ID: 500-F27-B	
					Non-Fibers	100
1924394-71	07-Jun-19	Off-white	VFT	No	Client ID: 500-F27-A	
					Non-Fibers	100
1924394-72	07-Jun-19	Off-white	VFT	No	Client ID: 500-F27-C	
					Non-Fibers	100
1924394-73	07-Jun-19	Beige	VFT	No	Client ID: 500-F28-A	
					Non-Fibers	100
1924394-74	07-Jun-19	Beige	VFT	No	Client ID: 500-F28-B	
					Non-Fibers	100
1924394-75	07-Jun-19	Beige	VFT	No	Client ID: 500-F28-C	
					Non-Fibers	100



Report Date: 19-Jun-2019 Order Date: 11-Jun-2019

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Client: GHD Limited (Ottawa)
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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-76	07-Jun-19	Brown	VSF	No	Client ID: 534-F29-A	
					Non-Fibers	100
1924394-77 07-Jun-19	07-Jun-19	Brown	VSF	No	Client ID: 534-F29-B	
					Non-Fibers	100
1924394-78	07-Jun-19	Brown	VSF	No	Client ID: 534-F29-C	
					Non-Fibers	100
1924394-79	07-Jun-19	Grey	VSF	No	Client ID: 502-F30-A	
					MMVF	10
				Non-Fibers	90	
1924394-80	07-Jun-19	Grey	VSF	No	Client ID: 514-F30-B	
					MMVF	10
				Non-Fibers	90	
1924394-81	07-Jun-19	Grey	VSF	No	Client ID: 510-F30-C	
					MMVF	10
					Non-Fibers	90
1924394-82	07-Jun-19	Green	VFT	Yes	Client ID: 488-F32-B	
					Chrysotile	10
					Non-Fibers	90
1924394-83	07-Jun-19				Client ID: 524-F32-D	
					not analyzed	
1924394-84	07-Jun-19				Client ID: 329-F32-E	
					not analyzed	
1924394-85	07-Jun-19	Brown	Vinyl Mock Hardwood	i No	Client ID: 490-F33-A	
					Non-Fibers	100



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Client: GHD Limited (Ottawa)
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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-86	07-Jun-19	Brown	Vinyl Mock Hardwood	No	Client ID: 490-F33-B	
					Non-Fibers	100
1924394-87	07-Jun-19	Brown	Vinyl Mock Hardwood	No	Client ID: 490-F33-C	
					Non-Fibers	100
1924394-88	07-Jun-19	Brown	Vinyl Mock Hardwood	No	Client ID: 357-F34-A	
					Non-Fibers	100
1924394-89	07-Jun-19	Brown	Vinyl Mock Hardwood	No	Client ID: 522-F34-D	
					Non-Fibers	100
1924394-90	07-Jun-19	Brown	Vinyl Mock Hardwood	No	Client ID: 327-F34-B	
					Non-Fibers	100
1924394-91	07-Jun-19	White	VSF	No	Client ID: 496-F35-B	
					Cellulose	30
					Non-Fibers	70
1924394-92	07-Jun-19	White	VSF	No	Client ID: 496-F35-A	
					Cellulose	30
					Non-Fibers	70
1924394-93	07-Jun-19	White	VSF	No	Client ID: 355-F35-A	
					Cellulose	30
					Non-Fibers	70
1924394-94	07-Jun-19	White/Black	VFT	No	Client ID: 496-F36-A	
					Non-Fibers	100
1924394-95	07-Jun-19	White/Black	VFT	No	Client ID: 496-F36-B	
					Non-Fibers	100
1924394-96	07-Jun-19	White/Black	VFT	No	Client ID: 496-F36-C	
					Non-Fibers	100



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-97	07-Jun-19	White/Black	VFT	No	Client ID: 496-F37-A	
					Non-Fibers	100
1924394-98	07-Jun-19	White/Black	VFT	No	Client ID: 496-F37-B	
					Non-Fibers	100
1924394-99	07-Jun-19	White/Black	VFT	No	Client ID: 496-F37-C	
					Non-Fibers	100
1924394-AA	07-Jun-19	Beige	VFT	No	Client ID: 496-F38-A	
					Non-Fibers	100
1924394-AB	07-Jun-19	Beige	VFT	No	Client ID: 327-F38-B	
					Non-Fibers	100
1924394-AC)24394-AC 07-Jun-19	Beige	VFT	No	Client ID: 329-F38-C	
					Non-Fibers	100
1924394-AD	07-Jun-19	Beige	VFT	No	Client ID: 522-F39-A	
					MMVF	1
					Non-Fibers	99
1924394-AE	07-Jun-19	Beige	VFT	No	Client ID: 522-F39-B	
					MMVF	1
					Non-Fibers	99
1924394-AF	07-Jun-19	Beige	VFT	No	Client ID: 522-F39-C	
					MMVF	1
					Non-Fibers	99
1924394-AG	07-Jun-19	Blue	VFT	No	Client ID: 520-F40-A	
					Non-Fibers	100
1924394-AH	07-Jun-19	Blue	VFT	No	Client ID: 333-F40-B	
					Non-Fibers	100



Certificate of Analysis

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Report Date: 19-Jun-2019 Order Date: 11-Jun-2019 Project Description: 11196110-E4

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-AI	07-Jun-19	Blue	VFT	No	Client ID: 520-F40-C	
					Non-Fibers	100
1924394-AJ	07-Jun-19	Beige	VSF	No	Client ID: 520-F41-A	
					Cellulose	30
					Non-Fibers	70
1924394-AK	07-Jun-19	Beige	VSF	No	Client ID: 520-F41-B	
					Cellulose	30
					Non-Fibers	70
1924394-AL	07-Jun-19	Beige	VSF	No	Client ID: 520-F41-C	
					Cellulose	30
				Non-Fibers	70	
1924394-AM	07-Jun-19	Beige	VSF	No	Client ID: 520-F42-A	
					Non-Fibers	100
1924394-AN	07-Jun-19	07-Jun-19 Beige	VSF	/SF No	Client ID: 520-F42-B	
					Non-Fibers	100
1924394-AO	07-Jun-19	Beige	VSF	No	Client ID: 520-F42-C	
					Non-Fibers	100
1924394-AP	07-Jun-19	Beige	VSF	No	Client ID: 510-F43-A	
					Non-Fibers	100
1924394-AQ	07-Jun-19	07-Jun-19 Beige	eige VSF	No	Client ID: 510-F43-B	
					Non-Fibers	100
1924394-AR	07-Jun-19	Beige	VSF	No	Client ID: 510-F43-C	
					Non-Fibers	100



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1924394-AS	07-Jun-19	Beige	VSF	No	Client ID: 524-F44-A	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-AT	07-Jun-19	Beige	VSF	No	Client ID: 524-F44-B	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-AU	07-Jun-19 Beige VSF	No	Client ID: 524-F44-C			
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-AV	07-Jun-19	Beige	VSF	No	Client ID: 355-F45-A	
					MMVF	1
					Non-Fibers	99
1924394-AW	07-Jun-19	Beige	VSF	No	Client ID: 345-F45-B	
					Cellulose	30
					Non-Fibers	70
1924394-AX	07-Jun-19	Beige	VSF	No	Client ID: 345-F45-D	
					Cellulose	30
					Non-Fibers	70
1924394-AY	07-Jun-19	Beige	VSF	No	Client ID: 524-F46-A	
					Cellulose	25
					MMVF	5
					Non-Fibers	70



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-AZ	07-Jun-19	Beige	VSF	No	Client ID: 524-F46-B	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-BA	07-Jun-19	Beige	VSF	No	Client ID: 524-F46-C	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-ВВ 07-Ju	07-Jun-19	Beige	VSF	No	Client ID: 339-F47-A	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-BC	07-Jun-19	Beige	VSF	No	Client ID: 339-F47-B	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-BD	07-Jun-19	Beige	VSF	No	Client ID: 524-F47-A	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-BE	07-Jun-19	Beige	VFT	No	Client ID: 532-F48-A	
					Non-Fibers	100
1924394-BF	07-Jun-19	Beige	VFT	No	Client ID: 532-F48-B	
					Non-Fibers	100
1924394-BG	07-Jun-19	Beige	VFT	No	Client ID: 532-F48-C	
					Non-Fibers	100



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-BH	07-Jun-19	Grey	VFT	No	Client ID: 327-F49-A	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-BI	07-Jun-19	Grey	VFT	No	Client ID: 327-F49-B	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-BJ 07-Jui	07-Jun-19	Grey	Grey VFT	No	Client ID: 327-F49-C	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-BK	07-Jun-19	Brown	Mock Hardwood	No	Client ID: 327-F50-A	
					Non-Fibers	100
1924394-BL	07-Jun-19	Brown	Mock Hardwood	No	Client ID: 327-F50-B	
					Non-Fibers	100
1924394-BM	07-Jun-19	Brown	Mock Hardwood	No	Client ID: 327-F50-C	
					Non-Fibers	100
1924394-BN	07-Jun-19	Beige	VSF	No	Client ID: 327-F51-A	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-BO	07-Jun-19	Beige	VSF	No	Client ID: 327-F51-B	
					Cellulose	25
					MMVF	5
					Non-Fibers	70



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-BP	07-Jun-19	Beige	VSF	No	Client ID: 327-F51-C	
					Cellulose	25
					MMVF	5
					Non-Fibers	70
1924394-BQ	07-Jun-19	Brown	Mock Hardwood	No	Client ID: 327-F52-A	
					MMVF	10
					Non-Fibers	90
1924394-BR	07-Jun-19	Brown	Mock Hardwood	No	Client ID: 327-F52-B	
					MMVF	10
					Non-Fibers	90
1924394-BS	07-Jun-19	Brown	Mock Hardwood	No	Client ID: 327-F52-C	
					MMVF	10
					Non-Fibers	90
1924394-BT	07-Jun-19	Brown	VFT	No	Client ID: 333-F53-A	
					Non-Fibers	99
					Other fibers	1
1924394-BU	07-Jun-19	Brown	VFT	No	Client ID: 333-F53-B	
					Non-Fibers	100
					Other fibers	1
1924394-BV	07-Jun-19	Brown	VFT	No	Client ID: 333-F53-C	
					Non-Fibers	99
					Other fibers	1
1924394-BW	07-Jun-19	Mock White	VSF	No	Client ID: 333-F54-A	
					Cellulose	40
					Non-Fibers	60



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1924394-BX	07-Jun-19	Mock White	VSF	No	Client ID: 333-F54-B	
					Cellulose	40
					Non-Fibers	60
1924394-BY	07-Jun-19	Mock White	VSF	No	Client ID: 333-F54-C	
					Cellulose	40
					Non-Fibers	60
1924394-BZ	07-Jun-19	Tan/White	VSF	No	Client ID: 333-F55-A	
					Cellulose	30
					Non-Fibers	65
					Other fibers	5
1924394-CA	07-Jun-19	Tan/White	VSF	No	Client ID: 335-F55-B	
					Cellulose	30
					Non-Fibers	65
					Other fibers	5
1924394-CB	07-Jun-19	Tan/White	VSF	No	Client ID: 63-F55-B	
					Cellulose	30
					Non-Fibers	65
					Other fibers	5
1924394-CC	07-Jun-19	Dark Brown	VFT	Yes	Client ID: 335-F56-A	
					Chrysotile	6
					Non-Fibers	94
1924394-CD	07-Jun-19				Client ID: 335-F56-B	
					not analyzed	
1924394-CE	07-Jun-19				Client ID: 335-F56-C	
					not analyzed	
1924394-CF	07-Jun-19	Beige	VFT	No	Client ID: 335-F57-A	
					Non-Fibers	100



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-CG	07-Jun-19	Beige	VFT	No	Client ID: 335-F57-B	
					Non-Fibers	100
1924394-CH	07-Jun-19	Beige	VFT	No	Client ID: 335-F37-C	
					Non-Fibers	100
1924394-CI	07-Jun-19	Brown	VFT	No	Client ID: 335-F58-A	
					Non-Fibers	100
1924394-CJ	07-Jun-19	Brown	VFT	No	Client ID: 335-F58-B	
					Non-Fibers	100
1924394-CK	07-Jun-19	Brown	VFT	No	Client ID: 335-F58-C	
					Non-Fibers	100
1924394-CL	07-Jun-19	Grey/Beige	Mock Hardwood	No	Client ID: 333-F59-A	
					Non-Fibers	100
1924394-CM	07-Jun-19	Grey/Beige	Mock Hardwood	No	Client ID: 333-F59-B	
					Non-Fibers	100
1924394-CN	07-Jun-19	Grey/Beige	Mock Hardwood	No	Client ID: 333-F59-C	
					Non-Fibers	100
1924394-CO	07-Jun-19	White	Vinyl Floor Tread	No	Client ID: 337-F60-A	
					Non-Fibers	100
1924394-CP	07-Jun-19	White	Vinyl Floor Tread	No	Client ID: 337-F60-B	
					Non-Fibers	100
1924394-CQ	07-Jun-19	White	Vinyl Floor Tread	No	Client ID: 337-F60-C	
					Non-Fibers	100
1924394-CR	07-Jun-19	Beige	VSF	No	Client ID: 337-F61-A	
					Cellulose	20
					Non-Fibers	80



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-CS 07	07-Jun-19	Beige	VSF	No	Client ID: 337-F61-B	
					Cellulose	20
					Non-Fibers	80
1924394-CT	07-Jun-19	Beige	VSF	No	Client ID: 337-F61-C	
					Cellulose	20
					Non-Fibers	80
1924394-CU	07-Jun-19	Grey	VFT	No	Client ID: 337-F62-A	
					Non-Fibers	100
1924394-CV	07-Jun-19	Grey	VFT	No	Client ID: 337-F62-B	
					Non-Fibers	100
1924394-CW (07-Jun-19	Grey	VFT	No	Client ID: 337-F62-C	
					Non-Fibers	100
1924394-CX	07-Jun-19	Blue/White	VFT	No	Client ID: 337-F63-A	
					Non-Fibers	100
1924394-CY	07-Jun-19	Blue/White	VFT	No	Client ID: 337-F63-B	
					Non-Fibers	100
1924394-CZ 07-Jun-19	07-Jun-19	Blue/White	VFT	No	Client ID: 337-F63-C	
					Non-Fibers	100
1924394-DA	07-Jun-19	White	VFT	Yes	Client ID: 65-F64-A	
					Chrysotile	5
					Non-Fibers	95
1924394-DB	07-Jun-19				Client ID: 65-F64-B	
					not analyzed	
1924394-DC	07-Jun-19				Client ID: 65-F64-C	
					not analyzed	



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-DD	07-Jun-19	White	VFT	No	Client ID: 361-F65-A	
					Non-Fibers	100
1924394-DE	07-Jun-19	White	VFT	No	Client ID: 361-F65-B	
					Non-Fibers	100
1924394-DF	07-Jun-19	White	VFT	No	Client ID: 361-F65-C	
					Non-Fibers	100
1924394-DG	07-Jun-19	Beige	VFT	No	Client ID: 355-F66-A	
					Non-Fibers	98
					Other fibers	2
1924394-DH	07-Jun-19	Beige	VFT	No	Client ID: 355-F66-B	
					Non-Fibers	98
					Other fibers	2
1924394-DI	07-Jun-19	Beige	VFT	No	Client ID: 355-F66-C	
					Non-Fibers	98
					Other fibers	2
1924394-DJ	07-Jun-19	Beige	VSF	No	Client ID: 339-F67-A	
					Cellulose	15
					MMVF	5
					Non-Fibers	80
1924394-DK	07-Jun-19	Beige	VSF	No	Client ID: 339-F67-B	
					Cellulose	15
					MMVF	5
					Non-Fibers	80
1924394-DL	07-Jun-19	Beige	VSF	No	Client ID: 339-F67-C	
					Cellulose	15
					MMVF	5
					Non-Fibers	80



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D	O contractor	0.1.	B	Addition Britain	M. C. C. I. I. J. C. C. C. C.	
Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification Client ID: 339-F68-A	% Content
1924394-DM	07-Jun-19	Beige/Brown	VSF	Yes	Client ID: 339-F68-A	
					Chrysotile	2
					Non-Fibers	98
1924394-DN	07-Jun-19				Client ID: 339-F68-B	
					not analyzed	
1924394-DO	07-Jun-19				Client ID: 339-F68-C	
					not analyzed	
1924394-DP	07-Jun-19	Beige/Black	VSF	No	Client ID: 492-F69-A	
					Non-Fibers	100
1924394-DQ	07-Jun-19	Beige/Black	VSF	No	Client ID: 492-F69-B	
					Non-Fibers	100
1924394-DR	07-Jun-19	Beige/Black	VSF	No	Client ID: 492-F69-C	
					Non-Fibers	100
1924394-DS	07-Jun-19	Brown/Black	VSF	No	Client ID: 498-F70-A	
					Non-Fibers	100
1924394-DT	07-Jun-19	Brown/Black	VSF	No	Client ID: 498-F70-B	
					Non-Fibers	100
1924394-DU	07-Jun-19	Brown/Black	VSF	No	Client ID: 498-F70-C	
					Non-Fibers	100
1924394-DV	07-Jun-19	Blue/Black	VSF	No	Client ID: 63-F72-A	
					Non-Fibers	100
1924394-DW	07-Jun-19	Blue/Black	VSF	No	Client ID: 63-F72-B	
					Non-Fibers	100
1924394-DX	07-Jun-19	Blue/Black	VSF	No	Client ID: 63-F72-C	
					Non-Fibers	100



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Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-DY	07-Jun-19	Brown/Black	VSF	No	Client ID: 83-F73-A	
					Non-Fibers	100
1924394-DZ	07-Jun-19	Black/Brown	VSF	No	Client ID: 83-F73-B	
					Non-Fibers	100
1924394-EA	07-Jun-19	Black/Brown	VSF	No	Client ID: 83-F73-C	
					Non-Fibers	100
1924394-EB	07-Jun-19	Dark Beige	VSF	No	Client ID: 524-F74-A	
					Cellulose	20
					Non-Fibers	80
1924394-EC	07-Jun-19	Dark Beige	VSF	No	Client ID: 524-F74-B	
					Cellulose	20
					Non-Fibers	80
1924394-ED	07-Jun-19	Dark Beige	VSF	No	Client ID: 524-F74-C	
					Cellulose	20
					Non-Fibers	80
1924394-EE	07-Jun-19	Dark Brown/Tan	VSF	No	Client ID: 492-F75-A	
					Cellulose	20
					Non-Fibers	80
1924394-EF	07-Jun-19	Dark Brown/Tan	VSF	No	Client ID: 492-F75-B	
					Cellulose	20
					Non-Fibers	80
1924394-EG	07-Jun-19	Dark Brown/Tan	VSF	No	Client ID: 492-F75-C	
					Cellulose	20
					Non-Fibers	80



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1924394-EH	07-Jun-19	Dark Beige	VSF	No	Client ID: 486-F77-A	
					Cellulose	30
					Non-Fibers	70
1924394-EI	07-Jun-19	Dark Beige	VSF	No	Client ID: 486-F77-B	
					Cellulose	30
					Non-Fibers	70
1924394-EJ	07-Jun-19	Dark Beige	VSF	No	Client ID: 486-F77-C	
					Cellulose	30
					Non-Fibers	70
1924394-EK	07-Jun-19	Dark Tan	VSF	No	Client ID: 500-F78-A	
					Cellulose	30
					MMVF	5
					Non-Fibers	65
1924394-EL	07-Jun-19	Dark Tan	VSF	No	Client ID: 500-F78-B	
					Cellulose	30
					MMVF	5
					Non-Fibers	65
1924394-EM	07-Jun-19	Dark Tan	VSF	No	Client ID: 500-F78-C	
					Cellulose	30
					MMVF	5
					Non-Fibers	65
1924394-EN	05-Jun-19	Black	Tar Paper	No	Client ID: 526-M1-Y	
					Cellulose	65
					Non-Fibers	35
1924394-EO	05-Jun-19	Black	Tar Paper	No	Client ID: 828-M1-B	
					Cellulose	65
					Non-Fibers	35



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1924394-EP	05-Jun-19	Black	Tar Paper	No	Client ID: 325-M1-K	
					Cellulose	65
					Non-Fibers	35
1924394-EQ	07-Jun-19	Grey	Gypsum	No	Client ID: 538-W3-A	
					Cellulose	1
					Non-Fibers	99
1924394-ER	07-Jun-19	White	Gypsum	No	Client ID: 490-W3-H	
					Cellulose	1
					Non-Fibers	99
1924394-ES 07-Jun-19	07-Jun-19	Grey	Gypsum	No	Client ID: 341-W3-D	
					Cellulose	1
					Non-Fibers	99
1924394-ET	07-Jun-19	Grey	Cement Elbow	Yes	Client ID: 355-M6-A	
					Chrysotile	35
					Non-Fibers	65
1924394-EU	07-Jun-19				Client ID: 355-M6-B	
					not analyzed	
1924394-EV	07-Jun-19				Client ID: 355-M6-C	
					not analyzed	
1924394-EW	06-Jun-19	Beige	Cellulose Paper Wrap	Yes	Client ID: 337-M4-A	
					Chrysotile	5
					Cellulose	75
					Non-Fibers	20
1924394-EX	07-Jun-19				Client ID: 355-M4-B	
					not analyzed	



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1924394-EY	07-Jun-19				Client ID: 355-M4-C	
					not analyzed	
1924394-EZ	07-Jun-19	Beige	Vermiculite	Yes	Client ID: 67-M5-A	
					Tremolite	1
					Non-Fibers	99
1924394-FA	07-Jun-19				Client ID: 67-M5-B	
					not analyzed	
1924394-FB	07-Jun-19				Client ID: 67-M5-C	
					not analyzed	
1924394-FC	07-Jun-19	White	Stipple	No	Client ID: 490-C2-A	
					Non-Fibers	100
1924394-FD	07-Jun-19	White	Stipple	No	Client ID: 490-C2-B	
					No. E'hara	[Z-01]
					Non-Fibers	100
1924394-FE	07-Jun-19	White	Stipple	No	Client ID: 490-C2-C	
					Non-Fibers	100
1924394-FF	07-Jun-19	Grey	Concrete Parge	No	Client ID: 327-M3-A	
					Non-Fibers	100
1924394-FG	07-Jun-19	Grey	Concrete Parge	No	Client ID: 327-M3-B	
					Non-Fibers	100
1924394-FH	07-Jun-19	Grey	Concrete Parge	No	Client ID: 327-M3-C	
					Non-Fibers	100
1924394-FI	07-Jun-19	Black	Tar on Styrofoam	Yes	Client ID: 820-M2-A	
					Charactile	[AS-PRE]
					Chrysotile	10



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1924394-FJ	07-Jun-19				Client ID: 323-M2-D	
					not analyzed	
1924394-FK	07-Jun-19				Client ID: 496-M2-B	
					not analyzed	
1924394-FL	07-Jun-19	Red	exterior pointing	No	Client ID: E73-W4-B	
					Non-Fibers	100
1924394-FM	07-Jun-19	Red	exterior pointing	No	Client ID: E365-W4-A	
					Non-Fibers	100
1924394-FN	07-Jun-19	Red	exterior pointing	No	Client ID: E305-W4-B	
					Non-Fibers	100
1924394-FO	07-Jun-19	Grey	exterior pointing	No	Client ID: E486-W4-A	
					Non-Fibers	100
1924394-FP	07-Jun-19	Grey	exterior pointing	No	Client ID: E492-W4-B	
					Non-Fibers	100
1924394-FQ	07-Jun-19	Grey	exterior pointing	No	Client ID: E498-W4-A	
					Non-Fibers	100
1924394-FR	07-Jun-19	White	Caulking	No	Client ID: E65-M11	
					Non-Fibers	100
1924394-FS	07-Jun-19	White	Caulking	No	Client ID: E504-M11-E	
					Non-Fibers	100
1924394-FT.1	07-Jun-19	White	Caulking	No	Client ID: E337-M11	
					Non-Fibers	[Z-01a]
						100
1924394-FT.2	07-Jun-19	White	Caulking	Yes	Client ID: E337-M11	[Z-01a]
					Chrysotile	1
					Non-Fibers	99



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1924394-FU	07-Jun-19	White	Caulking	No	Client ID: E542-M12	
					MMVF	1
					Non-Fibers	99
1924394-FV.1	07-Jun-19	White	Caulking	No	Client ID: E534-M12	
						[Z-01a]
					MMVF	1
					Non-Fibers	99
1924394-FV.2	07-Jun-19	White	Caulking	No	Client ID: E534-M12	
						[Z-01a]
					Non-Fibers	100
1924394-FW.1	07-Jun-19	White	Caulking	No	Client ID: E820-M12	
						[Z-01a]
					MMVF	1
					Non-Fibers	99
1924394-FW.2	07-Jun-19	White	Caulking	No	Client ID: E820-M12	
						[Z-01a]
					Non-Fibers	100
1924394-FX	07-Jun-19	Grey	Concrete wall Parge	No	Client ID: E502-W5-B	
					Non-Fibers	100
1924394-FY	07-Jun-19	Grey	Concrete wall Parge	No	Client ID: E83-W5-A	
					Non-Fibers	100
1924394-FZ	07-Jun-19	Grey	Concrete wall Parge	No	Client ID: E305-W5-B	
					Non-Fibers	100
1924394-GA.1	07-Jun-19	Beige	Drywall Joint Compound	Yes	Client ID: 1-828-W1-B	
					Chrysotile	1
					Non-Fibers	99
1924394-GA.2	07-Jun-19	Off-white	Drywall Joint Compound	Yes	Client ID: 1-828-W1-B	
					Chrysotile	1
					Non-Fibers	99



Order #: 1924394

Report Date: 19-Jun-2019 Order Date: 11-Jun-2019

Project Description: 11196110-E4

Client: GHD Limited (Ottawa) Client PO: 73516118

Certificate of Analysis

Paracel ID	Sample Date	Colour	Description /	Asbestos Detected	Material Identification	% Conter
1924394-GB	07-Jun-19				Client ID: 1-820-W1-A	
					not analyzed	
1924394-GC	07-Jun-19				Client ID: 2-305-W1-F	
					not analyzed	
1924394-GD	07-Jun-19				Client ID: 2-319-W1-J	
					not analyzed	
1924394-GE	07-Jun-19				Client ID: 3-345-W1-K	
					not analyzed	
1924394-GF	07-Jun-19				Client ID: 3-353-W1-H	
					not analyzed	
1924394-GG	07-Jun-19				Client ID: 4-311-W1-H	
					not analyzed	
1924394-GH	07-Jun-19				Client ID: 4-323-W1-K	
					not analyzed	
1924394-GI	07-Jun-19				Client ID: 5-500-W1-N	
					not analyzed	
1924394-GJ.1	07-Jun-19	Beige	Drywall Joint Compound	Yes	Client ID: 5-492-W1-S	
					Chrysotile	1
					Non-Fibers	99
1924394-GJ.2	07-Jun-19	Off-white	Drywall Joint Compound	Yes	Client ID: 5-492-W1-S	
					Chrysotile	1
					Non-Fibers	99
1924394-GK	07-Jun-19				Client ID: 6-496-W1-R	
					not analyzed	

Order #: 1924394

Report Date: 19-Jun-2019 Order Date: 11-Jun-2019

Project Description: 11196110-E4

Certificate of Analysis Client: GHD Limited (Ottawa) Client PO: 73516118

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1924394-GL	07-Jun-19				Client ID: 6-488-W1-Q	
					not analyzed	
1924394-GM	07-Jun-19				Client ID: 7-520-W1-T	
					not analyzed	
1924394-GN	07-Jun-19				Client ID: 7-510-W1-Y	
					not analyzed	
1924394-GO	07-Jun-19				Client ID: 8-538-W1-A	
					not analyzed	
1924394-GP	07-Jun-19				Client ID: 8-59-W1-D	
					not analyzed	
1924394-GQ	07-Jun-19				Client ID: 9-63-W1-DD	
					not analyzed	
1924394-GR	07-Jun-19				Client ID: 9-71-W1-KK	
					not analyzed	
1924394-GS	07-Jun-19				Client ID: 10-83-W1-II	
					not analyzed	
1924394-GT	07-Jun-19				Client ID: 10-81-W1-HH	
					not analyzed	

^{*} MMVF: Man Made Vitreous Fibers: Fiberglass, Mineral Wool, Rockwool, Glasswool

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code *	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	: - Ottawa West Lal	200812-0	18-Jun-19

^{*} Reference to the NVLAP term does not permit the user of this report to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

^{**} Analytes in bold indicate asbestos mineral content.



LABORATORIES LTD.

Order #: 1924394

Report Date: 19-Jun-2019

Order Date: 11-Jun-2019

Project Description: 11196110-E4

Qualifier Notes

Client PO: 73516118

Certificate of Analysis

Client: GHD Limited (Ottawa)

Sample Qualifiers:

AS-PRE: Due to the difficult nature of the bulk sample (interfering fibers/binders), additional NOB preparation was

required prior to analysis

Z-01: Strongly recommend analysis of DJC present in sample bag.

Z-01a: Two different layers of white caulking in sample bag.

Work Order Revisions | Comments

None

CDADACEI | TRUSTED

Chain of Custody (Asbestos) - Rev. 3.0 Dec. 2018



Chain of Custody (Lab Use Only)

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ient Name: GHO	Project Referen	nce:	196	110E4	Turnaround Time		
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Zue Jeurina	PO#:		TBD		4 Hour 2 D	-35	
dress: 179 Columnade Rd, Suite#400	Email Address				8 Hour 3D	00.500	
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lephone: 613-727 - 0510	Z01	e Jei	XUVOI	a e j a am	Date Required:		
ASBES	STOS &	MOL	D ANA	LYSIS			
latrix: □ Air 図 Bulk □ Tape Lift □ Swab □ Other					☐ SK ☐ Other:		
nalyses: Microscopic Mold Culturable Mold Bacteria GF	RAM P	CM Asbes	tos 🖾 PL	M Asbestos	estos TEM Asbestos		
aracel Order Number:				As	bestos - Bulk		
1924394		Air	Y=Yes	Identify Distinct Building	Materials to Be Analyzed	Positiv	
((0))	Sampling	Volume	Analysis	(if not specified, all materials	s identified will be analyzed) *	Stop's	
Sample ID	Date	(L)	Required	\			
538-F2-A	0		Y) VSF - pink + blu	o strongs	Ø	
65-F2- G	0		Y	An harring			
1488-F2-D	d		y	VFT- 12x12 CT +ar	JACK brown	V	
1 498- F3-G 5 83- F3-M	-		У		chunks	N N	
6 820-F3-A	T		y			X	
7 828 - FH - A	1		Y	VFT, 13x12CT De	igh is brown		
8 518 - F4-K			4		Streaks		
9 357 - 44 - A	9		Y			Z	
0 828-F5-A	6		Y	VSF - Speckled	beige + brown	₩ ₩	
11 828 - F6 - B	3		Y		y .	100	
12 900 - E5 - C	2		L Y	<i>y</i>		LAL	
If left blank, all distinct materials identified in the samples will be analyzed and report	ed separately a	s per EPA 60	0/R-93/116. A	additional charges will apply.	Method of Delivery	30.00	
Comments:					Walk	1	
Relinquished By (Sign):	0	Receive	ed at Labi	Venis	nd By:		

OPARACEL TRUS	TE ON ABLE.			1. paracelaparacellabs.com	Chain of Custody (Lab Use Only)	
LABORATORIES LTD. RELI	60400A07000.04				Page 2 of	23
ontact Name: GHO ontact Name: Zoe Jeaurond ddress: 179 Colonnade Rd, Suite#41 Nepean, ON KZE 754 elephone: (613-727-0510	Zoe.	jeau	TBD Yand	@ ghd.com	Turnaround Time: Immediate	ay ay ay
AS	BESTOS &	MOL	D ANA	LYSIS		
Matrix: ☐ Air 図 Bulk ☐ Tape Lift ☐ Swab ☐ O	ther Regula	ntory Gu	ideline: 🛚	- 01.	SK Other:	
malyses: ☐ Microscopic Mold ☐ Culturable Mold ☐ Bacter	ia GRAM 🗖 P	CM Asbest	os 🖾 PL			
aracel Order Number:		9850			sbestos - Bulk	
	Sampling Date	Air Volume (L)	Analysis Required	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	g Materials to Be Analyzed ls identified will be analyzed) *	Positiv Stop?
Sample ID	O	(L)	У	Vinyl Stair tree	ad, brown	Ø
1492-F6-H	-		Y			Ø
828- F6- A	0		Y			N N
532- F6- T 329- F7-E	N		Y			X
329-F7-E 1498-F7-B	2		Y	VSF, beige + t	on stones	
	+		Y			12
1301-F8-A	7		4		own w whitet	[2] [X]
301-F8-B	4		Y	prom	specs	IX
301-F8-C	C		Y	/		TX.
10 518 - F9 - G	7		1	NFT, laxia bei	ge w tan	[Z
11 305-F9-B			1	1	Chunks	Z
			Y	/		1 161
12 50 A 488 - F9 - O If left blank, all distinct materials identified in the samples will be analyzed and	reported separately a	s per EPA 60	0/R-93/116. /	Additional charges will apply.	Method of Delivery:	
Comments:						
Relinquished By (Sign):	2	Receiv	ed at Laby	Veri	ified By:	-
Relinquished By (Print): JACQUELYN CHRHEY	11/19	Donatt	mai Ale	MING N W. Dan	ertime 06219/248	5_

Relinquished By (Print): JACRINELYN CWATHEY

Date/Time: 1:30pm 11 Tune 2014

Date/Time: 1:30pm 11 Tune 2014

Date/Time: 1:30pm 12 Tune 2018

Chain of Custody (Lub Use Only) TRUST OPARACEL LABORATORIES LTD. RELIABLE. Page 3. of Turnaround Time: Project Reference: 11 19 61 10 EH Client Name: GHO ☐ Immediate ☐ 1 Day Ouote #: Zoe leaurond 4 Hour 2 Day Caronnade Rd, Suite #400 TBO ☐ 3 Day 8 Hour Email Address: Regular Regular KOE 754 Nepean, on zor: jeaurond@ghd.com Date Required: Telephone: 613-727-0510 ASBESTOS & MOLD ANALYSIS Regulatory Guideline: ♥ON □QC □AB □ SK Matrix: ☐ Air ☐ Bulk ☐ Tape Lift ☐ Swab ☐ Other Analyses: ☐ Microscopic Mold ☐ Culturable Mold ☐ Bacteria GRAM ☐ PCM Asbestos ☐ PLM Asbestos ☐ Chatfield Asbestos ☐ TEM Asbestos Asbestos - Bulk Paracel Order Number: Air Identify Distinct Building Materials to Be Analyzed Positive Volume Analysis Sampling Stop? (if not specified, all materials identified will be analyzed) * Required Date Sample ID M 4 1 305-F10-P X VSF- mack brown wood 6 305-FID-B X 305-F10-(X VSF-textured beige 0 Y 514-FII-B V 0 83-FII-C M Y 305-FILL A X 323-F12-D X VFT-50/50 beige + brown 329-FID-T X 2 540- F12-B X 486 - F13-H X VFT - beice w little bit of brown 5 319 - F13-B X 12 339-F13-K * If left blank, all distinct materials identified in the samples will be analyzed and reported separately as per EPA 600/R-93/116. Additional charges will apply. Method of Delivery: Comments: Received at Depot Relinquished By (Sign): Olex 19 4:00 Date 100 061349 1:48, Relinquished By (Print): JACQUELYN CURPHEY Date/Time: 11 June 2019 Date/Time Dune

Date/Time: 1:30pm

Chain of Custody (Asbestos) - Rev. 3.0 Dec. 2018

Paracel ID: 1924394

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	Project Refere	nce: \((- 23 ne:
GHD	Quote #:	- 11	196	□ Immediate □ 1	
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lephone: 013727 0510		-		The second desirement of the second desirement	
ASBES	STOS &	MOL	D ANA	ALYSIS	
fatrix: □ Air □ Bulk □ Tape Lift □ Swab □ Other	Regula	atory Gu	ideline:	☑ON □QC □AB □SK □Other:	
nalyses: Microscopic Mold Culturable Mold Bacteria GF				M Asbestos ☐ Chatfield Asbestos ☐ TEM Asbestos	
aracel Order Number:				Asbestos - Bulk	
	Sampling	Air Volume	Analysis	(trust an added all materials identified will be analyzed)	Positiv Stop?
Sample ID	Date	(L)	Required		[X]
1 63-F14-C	0		Y	VSF, mack 12V12 CT +an+brown	×
2 311 - F14 -A 3 359 - F14 -A	0		Y		×
4 311-F15-A	d		y	NSF-mack 12 v 12 rt, dark brown	Ø
5 311 - F15 - B			Y	<u> </u>	X V
6 311- FIS-C	_		Y	K-17== - 1 12	N W
7 81- FILG-F			Y	VFT-grey w streaks	
8 520-FILE-C	2		7	1	
9 315-FIG-A			l y	NSF-mar 12,436 prown slate	X
10 315-F17-A	7		Y	1 7.75 1101 18 4 36 1110 31 310 1	囟
11 315-F17-B	-		Y	7	
12 315 - F17 - C If left blank, all distinct materials identified in the samples will be analyzed and report	ed separately a	s per EPA 60	0/R-93/116.	Additional charges will apply.	
				Method of Delivery	
Comments:					

Date/Time: Old 149 4'-Op Date/Time: dat319 1:48p

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Chain of Custody (Lab Use Only)

	Project Refere	nost.	- 1	79 - 7	TENN CONTRACT	93
Client Name: 6HD	Project Kelele	nce.	1961	10E4	Turnaround Time	
Contact Name: Zot Jeanroad	Quote #:			☐ Immediate ☐ 1 ☐	50.00	
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(0- 4-)	Email Address	Ÿ.		■ 8 Hour □ 3 L		
Nepean, an KZE 754	700.	ieau	and 6	29hd, com		guiai
Telephone: 613-727-0510		,		V	Date Required:	
ASB	ESTOS &	MOL	D ANA	LYSIS		
Matrix: □ Air 🖾 Bulk □ Tape Lift □ Swab □ Oth				☑ON □QC □AB	The state of the s	
Analyses: Microscopic Mold Culturable Mold Bacteria	GRAM P	CM Asbes	tos 🛛 PL	M Asbestos	Asbestos TEM Asbestos	
Paracel Order Number:					Asbestos - Bulk	
		Air			ling Materials to Be Analyzed	Positive
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World Stokes	Sampling	Volume	H10700000000000000000000000000000000000			Stop?
Sample ID	Sampling Date	Volume (L)	Analysis Required	(if not specified, all mater	rials identified will be analyzed) *	Stop?
1 319-F18-A	111111111111111111111111111111111111111	11.13322233	Required	(if not specified, all mater		Stop?
1 319-F18-A 2 319-F18-B	Date 6	11.13322233	H10700000000000000000000000000000000000	(if not specified, all mater	rials identified will be analyzed) *	Stop?
1 319-F18-A 2 319-F18-B 3 319-F18-C	Date 0	11.13322233	Required	(if not specified, all mater	rials identified will be analyzed) * Not pink flut stones	Stop?
1 319-F18-A 2 319-F18-B 3 319-F18-C 4 323-F20-A	Date 6	11.13322233	Required	(if not specified, all mater	rials identified will be analyzed) * Not pink flut stones	Stop?
1 319-F18-A 2 319-F18-B 3 319-F18-C 4 323-F20-A 5 323-F20-B	Date C C	11.13322233	Required Y Y Y Y Y Y Y	(if not specified, all mater	rials identified will be analyzed) * Not pink flut stones	Stop?
1 319-F18-A 2 319-F18-B 3 319-F18-C 4 323-F20-A 5 323-F20-B 6 323-F20-C	Date C C	11.13322233	Required Y Y Y Y Y Y Y	(if not specified, all mater VSF - beige a VSF - white +	rials identified will be analyzed) * nul pink flut stones extured	Stop?
1 319-F18-A 2 319-F18-B 3 319-F18-C 4 323-F20-A 5 323-F20-B 6 323-F20-C 7 325-F21-B	Date C C	11.13322233	Required Y Y Y Y Y Y Y	(if not specified, all mater	rials identified will be analyzed) * nul pink flut stones extured	Stop?
1 319-F18-A 2 319-F18-B 3 319-F18-C 4 323-F20-A 5 323-F20-B 6 323-F20-C 7 325-F21-B 8 490-F21-C	Date C C	11.13322233	Required Y Y Y Y Y Y Y	(if not specified, all mater VSF - beige a VSF - white +	rials identified will be analyzed) * nul pink flut stones extured	Stop?
1 319-F18-A 2 319-F18-B 3 319-F18-C 4 323-F20-A 5 323-F20-B 6 323-F20-C 7 325-F21-B 8 490-F21-C 9 81-F21-D	Date 6 0 7 0 7	11.1332223	Required Y Y Y Y Y Y Y	VSF - Whik to	rials identified will be analyzed) * nd pink flat stones extured mock tiles	Stop?
1 319-F18-A 2 319-F18-B 3 319-F18-C 4 323-F20-A 5 323-F20-B 6 323-F20-C 7 325-F21-B 8 490-F21-C 9 81-F21-D 10 325-F22-A	Date O C V	11.1332223	Required Y Y Y Y Y Y Y	VSF - Whik to	rials identified will be analyzed) * nul pink flut stones extured	Stop?
1 319-F18-A 2 319-F18-B 3 319-F18-C 4 323-F20-B 6 323-F20-B 6 323-F20-C 7 325-F21-B 8 490-F21-C 9 81-F21-D	Date 6 0 7 0 7	11.1332223	Required Y Y Y Y Y Y Y Y Y Y Y Y Y	VSF - Whik to	rials identified will be analyzed) * nd pink flat stones extured mock tiles	Stop?

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TRUSTE RESPON



Chain of Custody (Lab Use Only)

LABORATORIES LTD. RELIAN				e: paraceleparacellabs.com		
Client Name:	Project Refere	nce:	961	10 E4	Page 6 of C	33
GHD	Quote #:	11	-1 (4)	10 24	☐ Immediate ☐ 1 Da	
Contact Name: Zoe Jeaurond	100000				4 Hour 2 2 D	
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Nepean, ON	Email Address	c			⊠ Reg	
	zoe	jear	wond	@ghd.com	Date Required:	
012 10 0010		-			Date Required.	_
	STOS &				Par Par	
Matrix: ☐ Air Bulk ☐ Tape Lift ☐ Swab ☐ Other		A STATE OF THE PARTY OF THE PAR			SK Other:	
Analyses: ☐ Microscopic Mold ☐ Culturable Mold ☐ Bacteria C	GRAM P	CM Asbes	tos 🏻 PL	M Asbestos	pestos TEM Asbestos	
Paracel Order Number:				1000	sbestos - Bulk	
Sample ID	Sampling Date	Air Volume (L)	Analysis Required		g Materials to Be Analyzed s identified will be analyzed) *	Positive Stop?
1 325-F23-9	-	1.07	Ч	Vinul Stair tr	ead black	Ń
2 325-F23-B	0-		У		, 101	×
3 325 - F23-C	0		Y			
4 510 - Fa4 - G	0		Y	VSF, mock tile	s, brown	B
5 325 - F24 - A	67		У			X
6 506- FD4-E	Ţ		4		1 11 100 - 70	Ø
7 532 - Fas-c			Y		od Him brown 25	DC)
8 532 - F25 - E	-		Y	Cherry	4 proun	X
, 532 - F35-A	- č		7			×
10 500 - FOT-B	3		Y	VFT-offwhite	w heige Hers	X
11 500 - F27 - A	-		4	A ALL A STANGE	w pegennes	[3]
12 500 - F∋7 - C ■ If left blank, all distinct materials identified in the samples will be analyzed and report	rted separately as	s per EPA 60	0/R-93/116. A	dditional charges will apply.		
Comments: Relinquished By (Sign): Received at Depot: Comments.	_	Receive			Method of Delivery;	
Relinquished By (Print): THERMELYN CHAPHEY	1.1.			and had	4.01	0

Chain of Custody (Asbestos) - Rev. 3.0 Dec. 2018

Date/Time: 1:30pm 11 JUNE 299

DATE/TIME: June 11/19 DATE/TIME: CLOTUS 4:00p

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ient Name: CLLO	Project Refere	nce:	19101	10 EH	Turnaround Time	/
ent Name: GHO ontact Name: 7- 2- 1-2-1-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2	Quote #:		1 100		☐ Immediate ☐ 1 D	ay
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aracel Order Number:		1.1			Asbestos - Bulk	
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Sample ID	Date	(L)	Required	(if not specified, all materia	als identified will be analyzed) *	Stop?
1 500 - F28 -A	6		Ý	VFT, beige with	almost green	Ø
			37		-0"	DC-3
2 500- FZB-B	- 7		1		20.	Ø
2 500- F28-B 3 500- F28-C	0		Y	3.6		×
3 500 - F20-C	7		Y	YFS, MUCK 12x1	2 brown tile	X
3 500 - FZB-C 4 534 - FZ9-A			-	VFS, MUCK 12x1	2 brown tile	X X
3 500 - F20 - C 4 534 - F29 - A 5 534 - F29 - B			4	VSF MUCK 12x1	2 brown tile	
3 500 - FZB-C 4 534 - FZ4-A 5 534 - FZ4-B 6 534 - FZ4-C	7		Y	VSF MOCK lax1	2 brown tile the, grey and lensts	
3 500 - FZO-C 4 534 - FZO-A 5 534 - FZO-B 6 534 - FZO-A	4		7 7	VSF MOCK lax1		N N N
3 500-F20-C 4 534-F29-A 5 534-F29-C 7 502-F30-A 8 514-F30-B	4		7 7	VSF, MOCK WOOD	the, grey and lenots	N N N N N N N N N N N N N N N N N N N
3 500 - F20 - C 4 534 - F24 - A 5 534 - F24 - B 6 534 - F29 - C 7 502 - F30 - A 8 514 - F30 - B 9 510 - F30 - C	7 , 7		Y Y Y Y Y	VSF, MOCK WOOD VFT, Dlive gr	the, grey and lenots	N N N N N N N N N N N N N N N N N N N
3 500-F20-C 4 534-F29-A 5 534-F29-B 6 534-F29-C 7 502-F30-A 8 514-F30-B 9 510-F30-C 10 486-F33-B	6 7 , 2		Y Y Y Y Y Y Y	VSF, MOCK WOOD		N N N N N N N N N N N N N N N N N N N
3 500 - F20 - C 4 534 - F24 - A 5 534 - F24 - B 6 534 - F29 - C 7 502 - F30 - A 8 514 - F30 - B 9 510 - F30 - C	5 c r c 7 . 2		Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	VFF, Mock wood VFT, Olive gra Flees	the, grey and lenots	N N N N N N N N N N N N N N N N N N N

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ent Name: GHD	Project Refere	ence: []	19 6	1 10 E4	Turnaround Time	200
ntact Name: Zoe Jeaurond	Quote #:		1 , ()	11001	☐ Immediate ☐ 1 ☐	
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lephone: 613-727-0510	ZOE.	Jean	OIP	e Jilailan	Date Required:	
AS	SBESTOS &	MOL	D ANA	LYSIS		
				ON QC DAB	□ SK □ Other:	
nalyses: Microscopic Mold Culturable Mold Bacte						
racel Order Number:			District Name of Street		Asbestos - Bulk	
		Air				Arresto
	Communication of	Value	Analysis	identity Distinct Buildin	ng Materials to Be Analyzed	Positi
Sample ID	Sampling Date	Volume (L)	Required	(if not specified, all materia	als identified will be analyzed) *	Stop?
490-F33-A	[1000 CONTRACTOR 1000 CONTRA	POSSESSION CONTRACTOR	C10750-15210-90			
490-F33-A 490-F33-B	[1000 CONTRACTOR 1000 CONTRA	POSSESSION CONTRACTOR	Required Y Y		als identified will be analyzed) *	A)
490-F33-A 490-F33-B 490-F33-C	Date	POSSESSION CONTRACTOR	Required Y Y Y	vinyl mock hard	Iwood lightbrown	XI XI
490-F33-A 490-F33-B 490-F33-C 357-F34-A	Date	POSSESSION CONTRACTOR	Required Y Y	vinyl mock hard	Iwood lightbrown	N N
490-F33-A 490-F33-B 490-F33-C 357-F34-A 520-F34-D	Date	POSSESSION CONTRACTOR	Required Y Y Y Y Y	vinyl mock hard		A M M M
490-F33-A 490-F33-B 490-F33-C 357-F34-A 520-F34-D 327-F34-B	Date	POSSESSION CONTRACTOR	Required Y Y Y	vinyl mock hard	lwood lightbrown	A X X X X X X X X X X X X X X X X X X X
490-F33-A 490-F33-B 490-F33-C 357-F34-A 520-F34-D 327-F34-B 496-F35-B	Date S O	POSSESSION CONTRACTOR	Required Y Y Y Y Y Y Y Y Y	vinyl mock hard vinyl mock hard white textured	lwood, lightbrown dwood, honey oak VSF	A X X X X X X X X X X X X X X X X X X X
490-F33-A 490-F33-B 490-F33-C 357-F34-A 520-F34-D 327-F34-B 496-F35-B 496-F35-A	Date S O O O O	POSSESSION CONTRACTOR	Required Y Y Y Y Y	vinyl mock hard vinyl mock hard white textured	lwood lightbrown	X X X X X
490-F33-A 490-F33-B 490-F33-C 357-F34-A 520-F34-D 327-F34-B 496-F35-B 496-F35-A	Date Sion Color	POSSESSION AND A	Required Y Y Y Y Y Y Y Y Y	vinyl mock hard vinyl mock hard white textured Hisin	Jwood, hightbrown Jwood, honey oak VSF x4.5in	
490-F33-A 490-F33-B 490-F33-C 357-F34-A 522-F34-D 327-F34-B 496-F35-B 496-F35-B 496-F36-B 496-F36-B	Date S O O O O	POSSESSION AND A	Required Y Y Y Y Y Y Y Y Y	vinyl mock hard vinyl mock hard vinyl mock hard white textured H.5in	Jwood, lightbrown Jwood, honey oak VSF x 4.5in	
490-F33-A 490-F33-B 490-F33-C 357-F34-A 522-F34-D 327-F34-B 496-F35-B 496-F35-A 496-F36-A	Date Significant of the signifi	(L)	Required Y Y Y Y Y Y Y Y Y Y Y Y Y	vinyl mock hard vinyl	Jwood, hightbrown Jwood, honey oak VSF x4.5in	

PARACEL RESPONDENCE	N			e paracelaparacellabs.com	Chain of Custody (Lah Use Only)	
CADURATURIES ETD. I REELT	, DEL.				Page Q of	22
Client Name: GHO	Project Refere	nce:	1961	10 E4	Turnaround Time	
Contact Name: Zoe Jeanford	Quote#:			1	☐ Immediate ☐ 1 D	ay
Nepeur ON	PO#; Email Addres	TBI		100.0	☐ 4 Hour ☐ 2 Do ☐ 8 Hour ☐ 3 Do ☐ Reg	ay
Telephone: 613 - 727 - 0510	Zoe.	Jean	rond (@ GHD. com	Date Required:	ulai
1000000	ESTOS &	MOL	DANA	ALTO DESCRIPTION OF THE PROPERTY OF THE PROPER	Date Required:	
Matrix: □ Air □ Bulk □ Tape Lift □ Swab □ Ott	the same of the same of the same of	CONTRACTOR OF THE PARTY.			SK Other:	
Analyses: Microscopic Mold Culturable Mold Bacteria		Cathornell W. Harriston	CONTRACTOR OF	THE RESERVE OF THE PARTY OF THE		
Paracel Order Number:					estos - Bulk	
	Sampling	Air Volume	Analysis	Identify Distinct Building M (if not specified, all materials id	laterials to Be Analyzed	Positive Stop?
Sample ID 1 496 - F37 - A	Date	(L)	Required	VFT, 12x12 White		×
2 496 - F37 - B	-		Ý	VIII, INXIC WHITE	OWN DIMER WITH FIGHE	×
3 496 - F37 -C	0		¥	1		N
4 496-F38-A	N		Y	VFT, beige with	light streets	X
5 327 - F38 - B			Y		1	K
6 329- F38-C			Y	/		K
7 522 - F39-A	1		4	1 VFT- 9x9 beige	with pink textured	X
8 522 - F39-B			Y			X
9 522 - F39 - C	V		Y	/		
10 520 - FHO - A	2		Y	VFT, 12x12, 4 bl	ve square pattern	M
11 -520-F40-B- IC. 333-F40-B	3		У			X
12 520- F40-C	1 12		Y	/		×
If left blank, all distinct materials identified in the samples will be analyzed and re	ported separately as	per EPA 600	J/R-93/116. A	dditional charges will apply.	The state of the s	
Comments:					Method of Delivery:	
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Date/Time: Ola/1894:00 - Date/Time: Ola/389 1:48p

Chain of Custody (Asbestos) - Rev. 3.0 Dec. 2018

Date/Time: 1:30pm

Relinquished By (Print): JACQUELYN CURPHEY

11 JUNE 2019



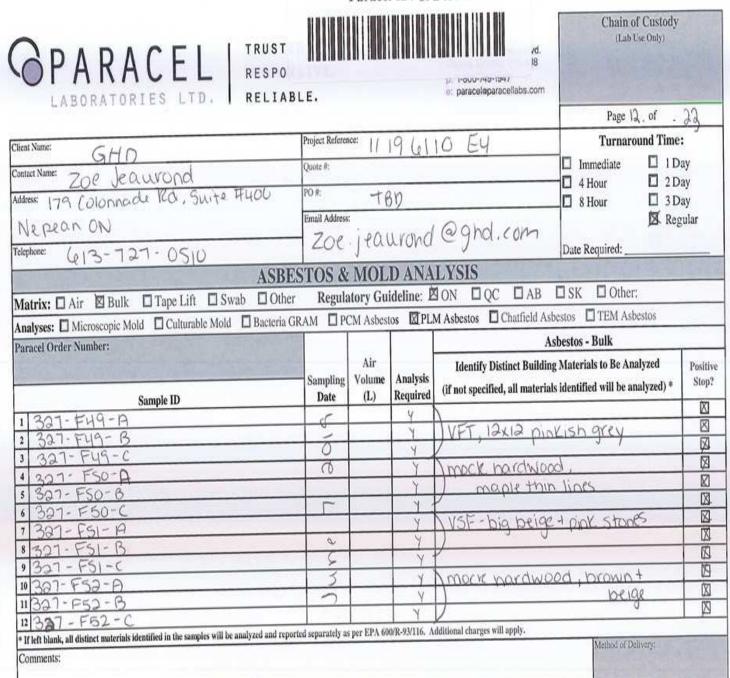
Chain of Custody (Lab Use Only)

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& 7/6	Air	Verture.	Identify Distinct Building	g Materials to Be Analyzed	Positi
Sampling Date	Volume (L)	Analysis Required	(if not specified, all material	s identified will be analyzed) *	Stop
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-		У	VSF-12X12 CT	, heige w tan	囚囚
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		Y	1		区
		Ý	1 VSF - MOCK 9)	9 cT beige	K
		Y) to	streaks	×
separately as	per EPA 60	/R-93/116. A	Additional charges will apply.	Method of Delivery:	
				Method of Delivery:	
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				Page \\ . of	-37
lient Name: GHD	Project Referer	ice: \1	1961	10 EY Turnaround	Time:
ontact Name: Zue Jeaurond	Quote #:			☐ Immediate ☐	1 Day
	PO#:		an	1 (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	2 Day
Altes: 179 Colonnade Rd, Suite #400	57711		160	5 (VISTA ()	3 Day
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lephone: 613-727-0510	LOC.) eaut 1	mue	Date Required:	
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Iatrix: □ Air □ Bulk □ Tape Lift □ Swab □ Other nalyses: □ Microscopic Mold □ Culturable Mold □ Bacteria					
	IOKAM LIN	JNI ASUCS	03 щил	Asbestos - Bulk	
aracel Order Number:		Air			
	Sampling	Volume	Analysis	Identify Distinct Building Materials to Be Analyzed	200
Sample ID	Date	(L)	Required	(if not specified, all materials identified will be analyze	u)
1355-F45-A	6		Y	VSF, 9x9 muck CT beige and ton	
845 - F45-B	-		Y) textured	2
345- F45-P	0		У	/	- 1
	N		Y	VSF, 6x6 mock CT, beige with tan	
524 - F46-A			Y	diamond	
The state of the s			-	1/	1 17
524 - F46-A			Ý	/	
524 - F46-A 524- F46-B	. ~		Ÿ	VSF, 6x6 mack CT, beinge and tan	12
524 - F46-A 5524- F46-B 5524- F46-C	. 0		Y	/	5 5
524-F46-B 524-F46-C 339-F49-A 339-F49-B	<i>N</i>		Y	VSF, 6x6 mack CT, beige and tan	5 5
524-F46-A 524-F46-B 524-F46-C 339-F49-A 339-F49-B	2		Y	/	5 5
524-F46-B 524-F46-B 524-F46-C 339-F47-A 339-F49-B	<i>N</i>		Y	VSF, 6x6 mack CT, beige and tan	5 5

Chain of Custody (Asbestos) - Rev. 3.0 Dec. 2018

Relinquished By (Print): "TACQUELYN CMRPHEY



Date/Time: 6(0/

Verified By:

Chain of Custody (Asbestos) - Rev. 3.0 Dec. 2018

Relinquished By (Print): JACOMELYN CURPHE

THINE 2019

Relinquished By (Sign):

Date/Time:

Received at Depot

Date/Time:

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Chain of Custody (Lab Use Only)

ТВ) . Jea		□ Immediate □ 1 Date Required: □ 2 Date Required: □ 2 Date Required: □ 3 Date Required:	ay ay
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	D ANA	LYSIS	
atory Gui	ideline:	NON □QC □AB □SK □Other:	
		Asbestos - Bulk	
Air		Identify Distinct Building Materials to Be Analyzed	Positive
Volume (L)	Analysis Required	(if not specified, all materials identified will be analyzed) *	Stop?
(13)	У	VFT, 12x12 mock CT brown with glive	X
	Y	sc' pattern	×
	Y	/	
	Y	1 VSF, 3x3 mock white with tutos	×
	Y		
	Y		×
	Y	VSF, tan and being peoble)	
	У		
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	Y	VFT, 9x9 dark brown	
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		Additional charges will apply.	
	CM Asbest	Air Volume (L) Required Y Y Y Y Y Y Y Y Y Y Y Y Y	Air Volume (L) Analysis (L) Y Y Y Y Y Y Y Y Y Y Y Y Y

PARACEL TRUSTE					Chain of Custody (Lab Use Only)	
LABORATORIES LTD. RELIAB				er paraceleparacellabs.com	Page 14. of	23
N. A.	Project Refere	nce: 1 1	10 (.1	IN EU	Turnaround Time	
Client Name: GHD	Quote #:	VI	1701	110 E4	☐ Immediate ☐ 1 D	
Pontact Name: Zoe Jeaurond	* CONTROL OF				□ 4 Hour □ 2 D	5550
ddress: 179 Colonnade Rd, Swite #400	PO #:	TB	D		□ 8 Hour □ 3 D	ay
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2200 A 144 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1	Zoe	, 189	Win	d@gnd.com	Date Required:	
	STOS &	MOL	DANA	TVCIC		
	-				SK Other:	
Matrix: ☐ Air 図 Bulk ☐ Tape Lift ☐ Swab ☐ Other			ideline: [The state of the s	
nalyses: Microscopic Mold Culturable Mold Bacteria G	RAM LIP	CM Asbest	los KIPL			
aracel Order Number:		557			sbestos - Bulk	
	Sampling	Air Volume	Analysis	OF-st-modified all material	g Materials to Be Analyzed s identified will be analyzed) *	Positive Stop?
Sample ID	Date	(L)	Required	VFT-12x12 heig		
1 335-F57- A	0		Y	11 10 110 1101	design	M
2 335-F57-B	0		У			⊠
3 335-F57-C	7		Y			B
1 335 - F56 - B	-		Y	NFT-12X12 bro	un, white heigh	Ø
6 335- F58-C	7		Υ.	/	Streaks	Ø
1 233 - F59-A	1		Y			囚
8 333- F59-B			Y	/mock hardwar	od, grey + beige	[2]
9 333-F59 - C	~		Y		MI 1/2 1/2	
10 337 - Floo-A	6		Y	A	and constant	
11 337 - FWO - B	3		Y	I vinyl floor tre	ad white	₩ ₩
12 337 - Floo - C	13	PD 1 (0		Additional abusine will apply		-
If left blank, all distinct materials identified in the samples will be analyzed and report	rted separately a	s per EPA 60	WK-93/110. /	Additional charges was apply.	Method of Delivery:	THE STATE
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Relinquished By (Print): TACQUELYN CARPHET Date/Time: 1:3000 1\ TUNE 2019 Date/Time: June	11/19	Date/T	ime: Olay	119 4:00 Date	Time: 06/3/9 /	484
Date time: 17)(O)	302					

LABORATORIES LTD. RELIA					Page \5. of .	_
Name: Ciun	Project Referen	ce:	961 11	0 E4	Turnaround Time:	
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10nc: 613-727-0510					Date Required:	
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trix: □ Air 図 Bulk □ Tape Lift □ Swab □ Othe	er Regula	ntory Gu	ideline: [ON QC AB	WAS THE TOTAL PROPERTY.	-
lyses: Microscopic Mold Culturable Mold Bacteria	GRAM P	CM Asbest	os 🛛 PL	M Asbestos		
acel Order Number:					sbestos - Bulk	1000
REI ONE THE		Air		Identify Distinct Buildin	g Materials to Be Analyzed	Posit
	Sampling		Analysis Required	(if not specified, all material	s identified will be analyzed) *	Stop
Sample ID	Date	(L)	Kequireu		res, rectangle, diamond	×
337-F61-A	-		V	and blue	7, 7,	×
339-F61-B	0		Ÿ			<u> </u>
337 - F61-C	N		Ý	VFT - 12x12 mo	ck CT, grey and	
337-FG2-A			Y	biotchy		
	_		Y	/		2
337- F62-B	-			/	The state of the s	
337 - F62 - C	Ch		Ý	VFT, laxla blue	and white	
337-F63-C			Y	VFT, 12x12 blue	and white	0
337 - F62 - C 337 - F63 - A 337 - F63 - B						D
337 - F62 - C 337 - F63 - A 337 - F63 - B 337 - F63 - C	CK.		Y		and white	D D
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337-F62-C 337-F63-A 337-F63-G 337-F63-C 65-F64-A 65-F64-B	4 2 3		7 77 7 7	VFT, 9x9 beign strenks		5
337-F63-C 337-F63-G 337-F63-C 65-F64-A	4 2 3	s per EPA 60	7 77 7 7	VFT, 9x9 beign strenks		D D

GPARACEL TRUST	III CONTRACTOR			lvd. J8 a: paracel@paracellabs.com	ly
	- We-turn-gaza a ne			Page \(\infty\). of	. 23
Client Name: (2HD)	Project Refere	nce: 11	19611	10 E4 Turnaround Tim	ie:
Contact Name: Zue Jean Ford	Quote #:	TBI)	Charles and the control of the contr	Day
Address: 179 Colonnade Rd, Swite #400	PO#:	11.00.6	**	Det 0 Maria Maria	Day
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Telephone: 613-927-0510	200.	,60	41	Date Required:	
ASB	ESTOS &	MOL	D ANA	ALYSIS	
Matrix: ☐ Air Bulk Tape Lift ☐ Swab ☐ Oth	er Regula	atory Gu	ideline: [☑ON ☐QC ☐AB ☐SK ☐Other:	
Analyses: ☐ Microscopic Mold ☐ Culturable Mold ☐ Bacteria	GRAM P	CM Asbes	tos 🖾 PL	.M Asbestos	
Paracel Order Number:				Asbestos - Bulk	
		Air		Identify Distinct Building Materials to Be Analyzed	The late
Sample ID	Sampling Date	Volume (L)	Analysis Required	(10 - 1 - 10 - 1 - 1) - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Positive Stop?
1 361 - F65-A		(45)	Y	VFT- 12x12 - white with grey flete	, N
2 361 - F65-B	5		y	1)	1 121
3 361-F65-C	-		Y	/	N
4 355-F66-A	0		Y	VFT - 12 x12 mock CT beige with	N N
5 355-F66-B	(4		У) 4 the major	×
6 355-F66-C	-		Y	1	×
7 339-F67-A	ot .		Y	VSF - beige with black specs	
8 339- F67-B	N)		Y		□ □ □
9 339- F67-C	2		7	1/5E 10 10 1 10 1 10 10 10	1
10 339 - F68 -A	3		y	VSF -12 x 12 beige with brown Strenks	2
11 339- F68-B 12 339- F68-C	h		7	Sherre)	3
* If left blank, all distinct materials identified in the samples will be analyzed and rep	orted separately as	ner EPA 60	0/R-93/116. A	Additional charges will apply.	-
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Chain of Custody (Asbestos) - Rev. 3.0 Dec. 2018

Date/Time: 1:30PM

Contact Name: Zoe Seaurond Address: 179 Colonnade Rd, Snite #400 Nepean ON Telephone: 613-727-0510 ASBESTOS & MOLD ANALYSIS Matrix: Air Bulk Tape Lift Swab Other Regulatory Guideline: SON QC AB SK Other: Analyses: Microscopic Mold Culturable Mold Bacteria GRAM PCM Asbestos PLM Asbestos Chatfield Asbestos TEM Asbestos Paracel Order Number: Sampling Volume Date Sampling Volume Analysis (L) Required 1 492-F69-A 2 492-F69-B 3 492-F69-C	ime: 1 Day 2 Day 3 Day Regular
Contact Name: Zoe Jeagrand Naddress: 179 Colonnade Rd, Snite #400 Nepeur ON Totephone: 613 - 727 - 0510 ASBESTOS & MOLD ANALYSIS Matrix: Air Bulk Tape Lift Swab Other Regulatory Guideline: Son QC AB SK Other; Analyses: Microscopic Mold Culturable Mold Bacteria GRAM PCM Asbestos PLM Asbestos Chatfield Asbestos TEM Asbestos Paracel Order Number: Sampling Volume Analysis (L) Required 1 492 - F69 - B 2 492 - F69 - B 3 492 - F69 - C	2 Day 3 Day
ASBESTOS & MOLD ANALYSIS Alir Bulk Tape Lift Swab Other Regulatory Guideline: ON QC AB SK Other: Asbestos Bacteria GRAM PCM Asbestos Chatfield Asbestos TEM Asbestos TEM Asbestos Asbestos - Bulk Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed 1 492 - 169 - 6 O Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	3 Day
Nephone: 613 - 727 - 0510 Zoe _ Jeuyrond & GHD . Com Date Required:	-0.000
Nepeur ON Zoe Jeuy rond Com Date Required: Da	Nogum .
ASBESTOS & MOLD ANALYSIS Astrix: Air Bulk Tape Lift Swab Other Regulatory Guideline: Son QC AB SK Other:	700
Hatrix: □ Air □ Bulk □ Tape Lift □ Swab □ Other Regulatory Guideline: □ ON □ QC □ AB □ SK □ Other: □ Other: □ Other: □ AB □ SK □ Other: □ O	
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nalyses: ☐ Microscopic Mold ☐ Culturable Mold ☐ Bacteria GRAM ☐ PCM Asbestos ☐ Chatfield Asbestos ☐ TEM Asbestos aracel Order Number: Sampling Date	
Sampling Date Sampling Date Sampling Date Air Volume Analysis (L) Required (if not specified, all materials identified will be analyzed or specified.	
Sampling Date Sampling Date Sampling Date Sampling Date (L) Sampling Date (L) Required (if not specified, all materials identified will be analyzed of the specified of	
Sample ID Date (L) Required (if not specified, all materials identified will be analyzed 492-F69-A 492-F69-B 492-F69-C	Pos
Sample ID 492-F69-A) * St
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1 63 - F 72 - A Y	
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PARACEL TRUST RESPO	V Outlier or			Chain of Custo (Lab Use Only) 8 paraceleparacellabs.com	dy	
ABSTRACT MANAGEMENT TO THE STATE OF THE STAT				Page 10 , of	.ನಿನ್ನ	
Client Name: GHD	Project Refere	nce:	1961 1	OE4 Turnaround Tir	me: '	
Contact Name: Zoe Jeaurond	Quote #:			100 700 00 00 00 00 00 00 00 00 00 00 00	I Day	
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Telephone: 613 - 727 - 0510	6	06. 76	Cuaro	Date Required:		
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Matrix: □ Air ☑ Bulk □ Tape Lift □ Swab □ Other				☑ON ☐QC ☐AB ☐SK ☐Other:		
Analyses: ☐ Microscopic Mold ☐ Culturable Mold ☐ Bacteria G				M Asbestos		
Paracel Order Number:	1	CITTAGOGO		Asbestos - Bulk		
Paracel Order Number:		Air				
	Sampling	Volume	Analysis	Identify Distinct Building Materials to Be Analyzed	Positive Stop?	
Sample ID	Date	(L)	Required	(if not specified, all materials identified will be analyzed)		
1 524-F94-A	6	-	Y	y VSF, dark beige	E	
2 524- F74-B	-		Y	,	W	
3 524 - F74-C	0		Y	/	E E	
4 492- F75-A	8		7	VSF, moule 12×12 dark brown	E E	
5 492- F75-6			7	and tan		
6 492- F95-C	X		1	LVSE MUCIE 12x12 (T textured		
7 486-F77-A	Cr.		Y		N N	
8 486- F77-B		_	7	dwik beige tile		
9 486- EJJ-C	M	_	1 Y	VSF, mock dark tan tile 12x12	8	
10 500- F78-A	2		7 Y	1 1 1 MOCE DIVICE THE THE WAR	8	
11 500 - 678 - 6	5		-	/	×	
12 500 - F78-C * If left blank, all distinct materials identified in the samples will be analyzed and report	tod construtely a	nor EPA 60	0/P-93/116 A	dditional charges will apply.	tion	
 If left blank, all distinct materials identified in the samples will be analyzed and report Comments: 	icu sepinately a	, per de a vo		Method of Delivery:		
Relinquished By (Sign): Received at Depot: Received at Depot: Relinquished By (Print): JACQUEL/IV CARPHEY	2	Receive	ed at Laby	Verified By:	- 18	

OPARALEL	TRUSTE RESPON			Chain of Custo (Lab Use Only) a: paraceleparacellabs.com	dy
LABORATORIES LTD.	KELIABLE,			Page 18 of	-22
Client Name: CLLD	Project Refere	nce: \\\\\	61.1	10 E4 Turnaround Tin	
GHV	Ouote #:		961		
Contact Name: Zoe Jeaurond					2 Day
Address: 179 collunade Rd, Suite #40	OO, PO#:	TBO			Day Day
Nepean, ON KaE 7JU	Email Addres				Regular
	200	ienu	road 6	pahd com	to Buttu
Telephone: 613-727-0510		V		Date Required	
THE RESERVE THE PARTY OF THE PA	ASBESTOS &	MOL	DANA	ALYSIS	
Matrix: □ Air ☑ Bulk □ Tape Lift □ Swab				YON □QC □AB □SK □Other:	
Analyses: Microscopic Mold Culturable Mold	the state of the s			.M Asbestos	
	Dacteria Okton La i		1	Asbestos - Bulk	
Paracel Order Number:		Air			
	Sampling	110000	Analysis	Identify Distinct Building Materials to Be Analyzed	Positiv
Sample ID	Date	(L)	Required	(if not specified, all materials identified will be analyzed)	s Stop?
1 526-MI-Y	June 5		Y	1	DS.
2 828 - MI - B	June 5,6		Y	black tar paper	N
3 325-MI-K	June 5, 3		4		Ø
4 538-W3-A	June 7, 6		4		M
5490-W3-H	June 7. 6	1019	Y	exterior gypsum	X
6 341- W3-D	Jure 7,	199	Y) "	M
7 355-MG-A	June 7	pp	Y		
8 355-MG-B		2019	7	cement elbow	M
9 355-Mla-C	June7		Y		
10 337-M4-A	Junele		Ý		X
11 355-M4-B	June 7		Y	cellulose paper wrap	
12 355 - M4 - C	June 7		1 4	V	1.2
* If left blank, all distinct materials identified in the samples will be anal	yzed and reported separately a	s per EPA 60	0/R-93/116. A	Additional charges will apply. Method of Delivery:	-
Comments:				aterial of pervey.	
	v				
Relinquished By (Sign): A Received at Depot	UPN	Receive	ed at Laby	Verified By:	

Date/Time:

Chain of Custody (Asbestos) - Rev. 3.0 Dec. 2018

Date/Time:

Relinquished By (Print): JACQNELYN CURALET

1:3000 11 JUNE 2014 DATO/Time:

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ddress: collonade Rd. Swite 400, Nepean, ON		TBD		□ 8 Hour	2 3 Day		
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ASBE	STOS &	MOL	DANA	ALYSIS			
Matrix: ☐ Air ☐ Bulk ☐ Tape Lift ☐ Swab ☐ Other	The second secon			☑ON ☐QC ☐AB ☐SK ☐Other:			
malyses: Microscopic Mold Culturable Mold Bacteria GF					OS		
aracel Order Number:				Asbestos - Bulk		_	
aracer Order Number.		Air		Identify Distinct Building Materials to Be Analyz	zed Posi		
Sample ID	Sampling Date	Volume (L)	Analysis Required	(iftified all metarials identified will be apply	7/40	op?	
1 67-M5-A	6		Ч			X	
2 (07-M5-B	7		Y	vermiculite.		X	
3 (07-M5-C	à		Y	/		X	
4 490-c2-A	6		¥			X X X	
5 490-C2-B	F		Y	Stiple ceiling		X)	
6 1/90-C2-C		-	¥	/	- 12	XI.	
7 397 - M3-A			Y	Concrete parge			
8 327-m3-B	2		Y	holding styroform on block	12 0	V	
9 327-m3-(5		7) , , ,		V	
10 820 - M2-A	3		Y	A black tar on styrotom		M	
11 323-H2-D	7		Y	, ,	1	K	
12 496 - M2 - B			Y			Ø	
• If left blank, all distinct materials identified in the samples will be analyzed and reported Comments:	ed separately as	per EPA 60	0/R-93/116. A	Additional charges will apply, Method of Deliver	,		

Chain of Custody (Asbestos) - Rev. 3.0 Dec. 2018

Date/Time:

Relinquished By (Print); TACK WOLYN CHRPHEY

1:30pm II TWE 2019 Date/Times

PARACEL RESPONDED				d. j.	2.1 Page % . of 3.3	
Contact Name: GHD Contact Name: Zoe Jeaurond Indiress: 179 Collonadi Rel, Suite #400, Neplan, ON 42 E 7J4 Telephone: 613-727-0510 ASBES Matrix: DAIR & Bulk D Tape Lift D Swab D Other	TOS &	jeau MOL	rond @ D ANA ideline: [ghd com LYSIS YON QC DAB	Turnaround Time: Immediate	ay ay ay
Analyses: Microscopic Mold Culturable Mold Bacteria GR Paracel Order Number:	AM Pe	Air Volume (L)	os PL Analysis Required	A Identify Distinct Buildin	sbestos - Bulk g Materials to Be Analyzed ls identified will be analyzed) *	Positive Stop?
Sample ID 1 E73-W4-B 2 E365-W4-B 4 E486-W4-B 4 E498-W4-B 6 E498-W4-A 7 E65-MU 8 E564-MU-E 9 E337-MU 10 E542-Mi2 11 E534-MI2	June 7, 2019		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	exterior pointing cxterior pointing soft white compared the compared the compared to the com	ausking	
*If left blank, all distinct materials identified in the samples will be analyzed and reporte Comments: Relinquished By (Sign): Received at Deport Relinquished By (Print): TACQUELYN CULPHET Date/Time: 30000 TANG JONG DATE/Time: 40000 Date/Time:	d separately a		ed in Lub:	Veri	Method of Delivery.	<u> </u>

GPARACEL | TRUSTED.

Chain of Custody (Asbestos) - Rev. 3.0 Dec. 2018



Chain of Custody (Lab Use Only)

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atrix: ☐ Air ☐ Bulk ☐ Tape Lift ☐ Swab L nalyses: ☐ Microscopic Mold ☐ Culturable Mold ☐ Ba	cteria GKAM LIT	JIM Manca	03 211		Asbestos - Bulk		
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AND	0 11-0	Air Volume	Analysis		ding Materials to Be Analyzed	Stop?	
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2-305-WI-F			Y		,	K	
2-39-WI-T			Y			K	
3-345-WI-K	d d		Y			K	
3-353-WI-H	C		4			K	
10 H-311-WI-H	3		Y			K	
11 H-323-WI-K	2		Y	V			
12 $5-500-WI-N$ If left blank, all distinct materials identified in the samples will be analyzed	and reported separately :	as per EPA 6	00/R-93/116.	Additional charges was apprya-	Method of Delivery		
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300 - 2319 St. Laurent Blvd Ottawa, ON, K1G 4J8 1-800-749-1947 www.paracellabs.com

Certificate of Analysis

GHD Limited (Ottawa)

179 Colonnade Road Suite 400

Ottawa, ON K0A 2W0 Attn: Zoe Jeaurond Client PO: 73516118 Project: 11196110-E4

 Project: 11196110-E4
 Report Date: 14-Jun-2019

 Custody: 20617
 Order Date: 11-Jun-2019

Order #: 1924228

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID		
1924228-01	828-W-P1-cream	1924228-31	534-W-P32-beige
1924228-02	301-W-P2-White	1924228-32	327-W-P33-white
1924228-03	305-W-P3-brown	1924228-33	329-W-P34-beige
1924228-04	59-WP4-beige	1924228-34	333-W-P35-beige
1924228-05	311-W-P5-white	1924228-35	335-W-P36-beige
1924228-06	315-W-P6-beige	1924228-36	337-W-P37-grey
1924228-07	315-W-P7-white	1924228-37	81-W-P37-grey
1924228-08	319-W-P8-eggshell	1924228-38	83-W-P38-grey
1924228-09	319-W-P9-Green	1924228-39	71-T-P39-green
1924228-10	319-W-P10-beige	1924228-40	65-W-P40-white
1924228-11	319-W-P11-purple	1924228-41	63-C-P41-white
1924228-12	M8-W-P12-beige	1924228-42	542-W-P3-white
1924228-13	325-W-P13-beige	1924228-43	361-W-P5-blue
1924228-14	325-W-P14-blue grey	1924228-44	359-W-P6-pink
1924228-15	498-W-P13-white	1924228-45	359-W-P7-blue
1924228-16	498-W-P16-bright blue	1924228-46	355-W-P8-white
1924228-17	486-W-P17-bright blue	1924228-47	355-W-P9-yellow
1924228-18	488-W-P18-beige	1924228-48	353-W-P10-beige
1924228-19	490-W-P19-baby blue	1924228-49	351-W-P11-white
1924228-20	490-W-P20-blue grey	1924228-50	486-W-P18-tan
1924228-21	496-W-P21-beige		
1924228-22	518-W-P22-brown		
1924228-23	516-W-P23-purple		
1924228-24	516-W-P24-blue		
1924228-25	512-W-P25-eggshell		
1924228-26	510-W-P26-white		
1924228-27	524-W-P27-brown		
1924228-28	526-W-P28-white		
1924228-29	532-W-P29-eggshell		
1924228-30	532-W-P31-purple		

Approved By:

Mark Foto

Mark Foto, M.Sc. Lab Supervisor



Certificate of Analysis

Order #: 1924228

Report Date: 14-Jun-2019 Order Date: 11-Jun-2019

Client: GHD Limited (Ottawa) Client PO: 73516118 Project Description: 11196110-E4

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date A	nalysis Date
Metals, ICP-OES	based on MOE E3470, ICP-OES	14-Jun-19	14-Jun-19

Sample and QC Qualifiers Notes

- 1- GEN01 :Elevated Reporting Limits due to limited sample volume.
- 2- Gen-19: Complete separation of paint from substrate not possible for this sample and a small amount of substrate has been included in the paint digestion.
- 3- LG-CNT(Container(s) Bottle and COC sample ID don't match -

Sample Data Revisions

None

Work Order Revisions/Comments:

None

Other Report Notes:

n/a: not applicable ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

Client PO: 73516118

Order #: 1924228

Report Date: 14-Jun-2019 Order Date: 11-Jun-2019 **Project Description: 11196110-E4**

Sample Results

Lead	Matrix: Paint
Leau	Sample Date: 05-Jun-19

Load			Samp	le Date: 05-Jun-19
Paracel ID	Client ID	Units	MDL	Result
1924228-01	828-W-P1-cream	ug/g	20	127 [2]
1924228-02	301-W-P2-White	ug/g	20	154 [2]
1924228-03	305-W-P3-brown	ug/g	20	<20 [2]
1924228-04	59-WP4-beige	ug/g	20	89 [2]
1924228-05	311-W-P5-white	ug/g	20	<20
1924228-06	315-W-P6-beige	ug/g	20	207 [2]
1924228-07	315-W-P7-white	ug/g	20	<20
1924228-08	319-W-P8-eggshell	ug/g	20	164
1924228-09	319-W-P9-Green	ug/g	20	<20
1924228-10	319-W-P10-beige	ug/g	20	289 [2]
1924228-11	319-W-P11-purple	ug/g	20	<20
1924228-12	M8-W-P12-beige	ug/g	20	<20 [2]
1924228-13	325-W-P13-beige	ug/g	20	<20
1924228-14	325-W-P14-blue grey	ug/g	20	<20
1924228-15	498-W-P13-white	ug/g	20	<20
1924228-16	498-W-P16-bright blue	ug/g	20	<20 [2]
1924228-17	486-W-P17-bright blue	ug/g	20	100 [2]
1924228-18	488-W-P18-beige	ug/g	20	289 [2]
1924228-19	490-W-P19-baby blue	ug/g	20	172 [2]
1924228-20	490-W-P20-blue grey	ug/g	20	<20

Lead Matrix: Paint
Sample Date: 06-Jun-19

Paracel ID	Client ID	Units	MDL	Result
1924228-21	496-W-P21-beige	ug/g	20	164
1924228-22	518-W-P22-brown	ug/g	20	<20 [2]
1924228-23	516-W-P23-purple	ug/g	20	<20
1924228-24	516-W-P24-blue	ug/g	20	325 [2]
1924228-25	512-W-P25-eggshell	ug/g	20	<20
1924228-26	510-W-P26-white	ug/g	20	<20
1924228-27	524-W-P27-brown	ug/g	20	<20
1924228-28	526-W-P28-white	ug/g	20	333 [2]
1924228-29	532-W-P29-eggshell	ug/g	20	155 [2]
1924228-30	532-W-P31-purple	ug/g	20	235 [2]
1924228-31	534-W-P32-beige	ug/g	20	80 [2]
1924228-32	327-W-P33-white	ug/g	20	<20 [2]
1924228-33	329-W-P34-beige	ug/g	20	283
1924228-34	333-W-P35-beige	ug/g	20	112

Client PO: 73516118

Order #: 1924228

Report Date: 14-Jun-2019 Order Date: 11-Jun-2019 **Project Description: 11196110-E4**

Sample Results

Lead			Matrix: Paint
Leau		Samp	le Date: 06-Jun-19

			Oump	e Bate: 00 dan 10		
Paracel ID	Client ID	Units	MDL	Result		
1924228-35	335-W-P36-beige	ug/g	20	345 [2]		
1924228-36	337-W-P37-grey	ug/g	20	<20 [2]		
1924228-37	81-W-P37-grey	ug/g	20	<20 [2]		
1924228-38	83-W-P38-grey	ug/g	20	<20		
1924228-39	71-T-P39-green	ug/g	20	410		
1924228-40	65-W-P40-white	ug/g	20	187 [2]		

Lead Matrix: Paint
Sample Date: 07-Jun-19

			Samp	ie Date. 07-3uii-19
Paracel ID	Client ID	Units	MDL	Result
1924228-41	63-C-P41-white	ug/g	20	180 [2]
1924228-42	542-W-P3-white	ug/g	20	396 [2]
1924228-43	361-W-P5-blue	ug/g	20	<20
1924228-44	359-W-P6-pink	ug/g	20	35
1924228-45	359-W-P7-blue	ug/g	20	<20
1924228-46	355-W-P8-white	ug/g	20	124 [2]
1924228-47	355-W-P9-yellow	ug/g	20	<20 [2]
1924228-48	353-W-P10-beige	ug/g	20	<30 [1]
1924228-49	351-W-P11-white	ug/g	20	<20
1924228-50	486-W-P18-tan	ug/g	20	<20

Laboratory Internal QA/QC

	ı	Reporting		Source		%REC		RPD	
Analyte	Result	Limit	Units	Result	%REC	Limit	RPD	Limit	Notes
Matrix Blank									
Lead	ND	20	ug/g						
Matrix Duplicate									
Lead	ND	20	ug/g	ND			0.0	30	
Matrix Spike									
Lead	245		ug/L	ND	97.5	70-130			

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GILD				teference:	19 (01 15	E4			TAT: WR	egular	[] 3 Day	/	
Contact Name: Zoe Jeanvond			Quote #							[]2	Day	[] 1 Day		
Address: 818 Glad & Suite # 400 179 Columnade Rd, Nepean, ON. K2	E 77	4	F	TB						Date Require				
Telephone: 613-727-0510		_	7 (oe, jeau	urand @	gnc	1.com	١	ľ	жие кецип	AI.			_
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Matrix Type: S (Soil Sed.) GW (Ground Water) SW (Surface Water) S		-	-			100000000				ed Analy		No.	-	
Paracel Order Number:	1			2001/2001/2004/2004/2004/2004/2004/2004/		-			T	T T	303		_	
1924228	rix	Air Volume	of Containers	Sample	Taken	EAD								
Sample ID/Location Name	Matrix	Air	# of	Date	Time	2								
1 828-W-P1-cream	P		1	19		X								
2 301-W-P2-White	P		1	0		Х								1
3 305-W-P3-brown	P		1	7		X								,
1 59-W-PH-beige	6		1	5 +		X								,
5 311-W-P5-White	P			N		χ								,
6 315-W-P6-beige	P		1	V		X								
1/315-W-P7-White	P			5		Х		2 '	missi	ng.				
8 319 - W - P8 - eggshell	P		(3		X		-						Τ,
, 319 - W-P9 - green	P		1	10	741	X								
10 319 - W-P10 - beige	P					V								
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Relinquished By (Print): JACQUELYN CURPHEY	Date/Ti		٥,0		Date/T Fempe	The 1	1115	1	-	Date/Time:	-20	1-19	16	23
Date/Time: 1:36 pm 11 JUNE 2019	Temper	ature:	-	12 14 (C C C C C C C C C C C C C C C C C C	rempe	inture:	- 0		P	H Verified [By:			NAME OF TAXABLE

pH Verified[] By:_



PARACEL WO: 1924228

LABORATORIES LTD.

Head Office 300-2319 St. Laurent Blvd. Ottawa, Ontario K1G 4J8 p: 1-800-749-1947 e: paracel@paracellabs.com Chain of Custody (Lab Use Only)

Nº 117808

Page 2 of 5

Client Name	e GHD				Project Referenc	e: 11 10	161	1	0	EL	1					Turna	round	Time:
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19	Order Number: 24227	rix	Air Volume	of Containers	Sampl	e Taken	S FI-F4+BTEX	25	15	als by ICP		B (HWS)	EAD					
	Sample ID/Location Name	Matrix	\ \ \	10 #	Date	Time	PHIC	VOC	PAH	Metals	Crvi	19 (1	LE					
1 3	319 - W-PII - purple	P		1	5								Χ					,
2 (48-W-Pla-beige	P		١	2019								Χ					-
3 2	525-W-P13-beige	P		1									Х					-
4 3	325-W-PI4-blucgrey	P		- 1	£ ,								Х					-
	198-W-P13-White	P		1	5								X					
	198-W-PIG-brightblue	P		1	9								X					
	186-W-PIT-brightblue	P		1	C								X					
8 L	188 - W-P18 - beige	P		1	ゴ								X					
9 L	190-W-P19-babyblue	P		1	h								X					
10 L	190-W-Pao-bluegrey	P											X					
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	ed By (Sign):	Receive	d by Driv	er. Depot.		1		1		10		30		Verified	noh	AN	1	
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Chain of Custody (Env) - Rev 0.7 Feb. 2016



LABORATORIES LTD.

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Nº 117810

Page 3 of 5

Client Name: GHO				Project Reference	e: 11 10	1 (01	16	E	4_				Tur	naroun	d Time:
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Address: 179 Colonnade Rod, Swite # 40					BO Je jean			1 (20	nd	.00	m	100	2 Day		t ∕Regular
Telephone: 613-707-0510						_					_			ate Req	iired:	
Criteria: □ O. Reg. 153/04 (As Amended) Table _ □ RSC	Filing [O. Reg	. 558/00	□ PWQO □	CCME II SU	B (Sto	rm)		JB (Sa	nitary) Mun	icipality:			Other:_	
Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) S	S (Storm/S	ianitary S	ewer)	Paint) A (Air) O	(Other)	Re	quir	ed A	nalyse	15						
Paracel Order Number:			S L S			TEX				Т		- T				
1924228	rix	Air Volume	of Containers	Sampl	e Taken	s F1-F4+BTEX	W	5	Is by ICP		B (HWS)	ERO				
Sample ID/Location Name	Matrix	Air	to #	Date	Time	PIIC	VOC	PAHs	Meta	Cr.S.	B (H	7				
1 496-W-021-beige	P		1									χ				
2 518-W-P22-brown	P		1	2019								X				
3 516-W-P23- Purple	P		1	20								X				
4 516-W-P24-blue	P		1	100								X				/
5 512-W-P25-eggsnell	P		1	=======================================								X				
6 510-W-P26-White	P		-	9								X				/
7 524 - W - P27 - brown	P		1	P								V				
8 526-W-Das-White	P		1	5								X				
, 532- W- PD9 - eggsnell	P		1	3								X				
10 532-N-P31-purple	6		1)	1							X				-
Comments:															od of Deliv	cry: WWW
Relinquished By (Sign):	Receive	d by Driv	er/Depot		Revel	1	6	1			7	2	ified By	VABO		- 10
Relinquished By (Print): JACRHELYN CURPHEY	Date/Ti				Chia	10000	2	11	11	1	12		e/Time.	06-1	1-19	16123
Date/Time: 1:30pm 11 JWVE 2019	Temper	iture:	"(Tempe	rature:			C			pH	Verified	[] By:		

LABORATORIES LTD:

Paracel ID: 1924228



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Nº 117811

Page 4 of 5

Client	Name: GHD				Project Reference	e: 11 1 C	16	11	0	E	4					Turna	round	Time:
Contac	(Name: Zoé Jeaurond				Quote #										olD.	ay		□ 3 Day
Addres	:179 culumnade Road Sut	e#41	χο,		PO# TBD				Τ						50000			
	spean, ON KRE 7JH				Email Address:			16	0.	hó	1 /				02D			Regular
Teleph	unc 613-727-0510				200	jeaur	on	9 (29	no	1,0	un			Date 1	Require	:d:	
Crite	ria: 🗆 O. Reg. 153/04 (As Amended) Table _ 🗆 RSC	Filing C	J O. Reg	. 558/00	□ PWQO □	CCME II SU	B (Sto	orm)	DS	UB (Sani	tary)	Municipali	ty:		_ 🗆 01	ther:	
Matrix	Type: S (Soil:Sed.) GW (Ground Water) SW (Surface Water)	SS (Storm?	Sanitary S	ewer P	Paint) A (Air) O	(Other)	Red	quir	ed A	naly	yses							
Para	cel Order Number: 1924228	rix	Air Volume	of Containers	Sampl	e Taken	s F1-F4+BTEX	×	V	Is by ICP			LEAD					
	Sample ID/Location Name	Mattrix	Air	# 01	Date	Time	PHCs	VOC	PAHs	Metals	Hg	CrVI	F					
1	534-W-P32-beige	P		1	5								X					
2	327 - W-P33 - White	P		1	2019								X					
3	329 - W- P34 - beige	P		1	d								X					
4	333- W-P35- beige	P		1	£								X					
5	335-W- P36- beige	P		1	ر ٰ								X					
6	337-W-P37-grey	P		1									X					
7	81-W-P37- White	P		1	2								V					
8	83-W-P38-White	P		1	≤								Х					
9	71-T- P39-green	P		1	3								У					
10	65-W-P40-White.	P		1	7								×					/
Com	nents:														,	Method o		× (1)
	uished By (Sign): J WY	Receive	d by Driv	er Depot		Receiv	red at L	ab:	/	/			30	Verified Me	MA	1		
_	nished By (Print): JACQNELYN CURPHEY	Date/Ti		1		Qate		٩	1	11	10	7	1	Date/Tit		6-11	49	16127
Date/1	inc: 1:30pm 11 JUNE 2019	Temper	ature.	1		Tempo	erature:	San San	-	U	11.11.50	V 4	100	pii Veri	fied[] [y		

Chain of Custody (Env) - Rev 0.7 Feb. 2016

LABORATORIES LTD.

Paracel ID: 1924228 GPARACEL

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Nº 117812

Page 5 of 5

Client Name: GH O		Project Reference:	196	1 10	E	-4				Turnaround Time:				
Contact Name: Zoe Jeaurond				Quote#								o1D	ay	□ 3 Day
Address: 179 Colonnade Road, Suit	e #40	0,		PO# TBD										
Nepean, ON, KZE7JH				Email Address:			□2 D	Regular						
Telephone: 613-727-0510				zue jea	uron	Date								
Criteria: ☐ O. Reg. 153/04 (As Amended) Table ☐ RS	C Filing D	0. Reg	, 558/0	D PWQO DCCME D	SUB (S	torm) I	o su	B (Sar	nitary) Mt	unicipality: _		D Other	
Matrix Type: S (Soil:Sed.) GW (Ground Water) SW (Surface Water) SS (Storm	Sanitary S	iewer(P	Paint) A (Air) O (Other)	Re	equire	d An	alyse	s					
Paracel Order Number:			2		TEX	П		T						
192428	rix	Air Volume	Containers	Sample Taken	FI-F4+BT			Is by ICP		3 (HWS)	180			
Sample ID/Location Name	Matrix	Air	# of	Date Tim	e BHC	Voc	PAHs	Metals	CrvI	B (H	7			
11 63-C-P41- white	0		1	June 76 2019							X			
2 542-W-P3-white.				June 7 Zo19							X			
3 361-W-P5-DILLE				June 7 2019							×			
3 361-W-P5-blue 4 359-W-P6-PINK				June 7 2019							λ			
45 359 · W - P7 - blue				June 7 2019							×			
6 355-W-P8-White				June 7 2019							×			
7 355 - W-P9 - Yellow				June 7 2019							X			
8 353-W-P10-beige				June 7 2019							X			
9 351-W-PII- White				June 7 2019				T			V			
10 486-W-P18-tan				June 7 2019							KI			
Comments: FNO.45, Somple M	cm B	ag v	read	- 351 -W-	P7	- Co	lov	p	m	*	Blue.		Method of De	
Relinquished By (Sign):	Receive	ad by Driv	ver Depo	t: R	eceived at	Lab?				7	Veri	fied By	M	~~
Relinquished By (Print): JACQUELYN CURPHEY	Date/Ti	me:		•	to Dank	De	11	110	1	1	Date	Time.	公司	11-19/6/22
Date-Time: 1:30 an IITUNE A019	Temper	ature:		C To	mperature		"(1		-	/ Hg	/erified [] E	lv:	



about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

Scott Wallis Scott.Wallis@ghd.com 613.389.9812

Luke Lopers Luke.Lopers@ghd.com 613.727.0510

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