Remediation and Site Restoration

Forested Lands at Summerhill Woods

Newmarket, Ontario

Prepared For: Criterion Developments

COMMUNITIES

TRANSPORTATION

BUILDINGS

INFRASTRUCTURE

MMM GROUP

October 2013 10-05015-018-RPT

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October 9, 2013
10-05015-018-RPT

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- And -

Esther Armchuk-Ball
Director of Legal Services/ Municipal Solicitor
Town of Newmarket
395 Mulock Drive
Newmarket, ON L3Y 4X7

Dear Lynn and Esther,

Subject: Environmental Closure Report for Remediation of Forested Lands Around Summerhill Woods, Newmarket, Ontario

We are pleased to submit this report concluding the remediation that was undertaken for the management of impacted topsoil in the forested areas of the Summerhill Woods Development in Newmarket, Ontario.

This report will form the documentation that the owners are required to provide to the Ministry of the Environment in compliance with the Certificate of Property Use that was issued as a result of the risk assessment that was undertaken for the lands. Appendices provide plans and programs that are required through the Certificate of Property Use. The owners are also required to maintain a copy of the information in this report on record, in the event that a Provincial Officer requests it. If you have any questions or comments, please contact the undersigned.

Yours truly,

MMM GROUP LIMITED

Carolyn I. Adams, M.A.Sc., P.Eng.
Manager, Thornhill Office
Environmental Management

cc. Andrea Brown, Ministry of the Environment, York Region

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EXECUTIVE SUMMARY

The remediation of contaminated topsoil was conducted in the forested and trail lands surrounding the Summerhill Woods development in Newmarket, Ontario. The development is located at the southeast corner of Bathurst Street and Mulock Drive and the forested and trail lands are located east of Bathurst Street, north and south of Mulock Drive. Together the lands that required remediation are referred to as the Subject Property in this report.

The Subject Property is approximately 22.8 ha hectares and was used for agriculture, primarily orchards, upon settlement of the area. A mature stand of trees at the south of the Subject Property was never farmed. The use of lead arsenate and DDT to control pests in the orchards resulted in contamination of topsoil in some locations that had since been allowed to reforest. Orchards were replaced with crops in the 1950s and peripheral lands that form the majority of the Subject Property were planted with pine trees. The forest that grew in the plantation area now includes species such as Scotch Pine, Norway Spruce, Black Walnut, Black Cherry, and White and Green Ash.

A risk assessment, conducted to identify areas that required remediation for the protection of human and ecological receptors, identified six areas requiring the removal of topsoil to a maximum depth of 0.3 m. The remediation was conducted in October and November 2012 and topsoil was imported to allow restoration of the areas in May 2013.

Based on the results of verification sampling conducted at the limits of the remedial excavations and confirmation of the suitability of imported topsoil, soil quality at the Subject Property meets the applicable site condition standards and no further remediation is required.

The risk assessment recommended administrative and site controls be implemented to manage the health and safety risks to users of the Subject Property, to manage the movement of soil and to discourage access to the Subject Property. These administrative measures would control future exposures to contaminants remaining beyond the limits of remediated areas. The required documentation to support the implementation of administrative measures will include:

- This Remediation and Site Restoration report,
- Copies of Certificates of Property Use,
- Access and Control Plan,
- Soil management plans for specific site activities that may disturb site soils,
- Health and safety plans for site activities that may disturb site soils, and
- Completed site inspection and activity forms as part of the Inspection and Maintenance Program.

Supporting information for these requirements is provided in the appendices of this report. Based on the effective completion of the remediation within the Criterion-owned lands, the municipal requirements for conveyance have been met and the lands that are intended for conveyance are suitable for transfer to the Town of Newmarket.

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1.0 INTRODUCTION

1.1 Background

Criterion Development Corporation (Criterion) retained MMM Group Limited (MMM) to provide consulting services for the management of soil at the Summerhill Woods development in Newmarket, Ontario. The development is located at the southeast corner of Bathurst Street and Mulock Drive (Figure 1) and is referenced by the Draft Plan of Subdivision #19TN-2005-003.

As part of the standard environmental practice for the management of excess topsoil during development, chemical analysis of the topsoil was conducted and arsenic was identified at concentrations exceeding the Ministry of the Environment (MOE) Site Condition Standards for residential land uses (Soil Engineers 2007). Delineation associated with the removal of contaminated topsoil (MMM 2007, Burnside 2010) identified arsenic contamination in now forested lands that were formerly used for agriculture. Arsenic impacts were confirmed to the north and east of the Summerhill Woods development, immediately south of the entrance to William Dunn Crescent at Bathurst Street and in the forested lands north of Mulock Drive (Figure 2). For the purpose of this report, the contaminated lands, as identified in Figure 2 are referred to as the Subject Property. Contamination was present on lands owned by Criterion as well as lands owned by the Town of Newmarket. There was no evidence of impacts within the mature, undisturbed, natural, woodlot south of the development, although this land is included within the Subject Property boundaries.

It was concluded that the arsenic in the topsoil was associated with residues of lead arsenate pesticides, which were typically used on orchards until the mid-1950s. Review of historical air photos (Appendix A-1) indicated that orchard trees were present over the Subject Property in 1927 and 1946. By 1954, there was no evidence of an orchard at the Subject Property.

Criterion undertook the remediation of the Summerhill Woods development land and a 30 m wide buffer around the development in December 2007 with verification sampling conducted in July 2008. Residential townhouses have been constructed within the development lands and vegetation has been re-established in the buffer. To reduce the impact of remediation on the established forested land, a risk assessment was undertaken to identify acceptable concentrations of contaminants that can remain in the topsoil within the forest and not present an unacceptable risk to humans and the ecology. The risk assessment was conducted by Intrinsik Environmental Sciences Inc. (Intrinsik 2011) on behalf of Criterion and the Town of Newmarket.

This report documents the remediation of areas where the concentrations of contaminants exceeded the acceptable concentrations established through the risk assessment. Because there is no proposed change in land use for the Subject Property, we understand that the Town of Newmarket will not require a Record of Site Condition prior to conveyance of lands. Therefore, this report follows the intent of Ontario Regulation 153/04 for a Phase Two Environmental Site Assessment, but was based on the existing reports that may not have been compliant with all the requirements of the regulation. This report includes only those administrative requirements that would affect the conclusions of the investigation.

To support the ongoing management of risk associated with arsenic in the topsoil, this report includes plans and processes that may be implemented for the Subject Property. These plans were prepared in accordance with the risk management measures identified in the Intrinsik risk

assessment and administrative requirements outlined in the Certificates of Property Use (CPUs) issued by the Ontario Ministry of the Environment (MOE). Specific forms and protocols that may apply to the ongoing management of the lands are included in appendices of this report.

1.2 Site Description

The Subject Property is approximately 22.8 hectares and was used for agriculture, primarily orchards, upon settlement of the area. A mature stand of trees at the south of the Subject Property was never farmed. Orchards were replaced with crops in the 1950s and peripheral lands were planted with pine trees. The forest that grew in the plantation area now includes species such as Scotch Pine, Norway Spruce, Black Walnut, Black Cherry, and White and Green Ash.

1.3 Property Ownership

The lands around the Summerhill Woods development, including the buffer lands, and the northeast corner of Mulock Drive and Bathurst Street are owned by Criterion. The Town of Newmarket owns the path along Armitage Creek to the east of the development and forested lands north of Mulock Drive. The ownership distribution of the lands was documented during the risk assessment process by R. J. Burnside (Property Ownership Plan in Appendix A-1). The descriptions of the lands were presented in the risk assessment report and associated CPUs (No. 8812-7RBMXF-1 and -2 – Appendix B-1), as documented in Table 1.

The undevelopable lands around Summerhill Woods, south of Mulock Drive, owned by Criterion, will be conveyed to the Town of Newmarket. The commercially designated lands northeast of Mulock Drive and Bathurst Street will be retained by Criterion.

Table 1: Property Descriptions and Ownership

Parcel Description	Ownership	Legal Description
Northeast corner of Mulock Drive and Bathurst Street	Criterion Development Corporation	Part of Lot 91, Concession 1 WYS (King) designated as Part 45 on Plan 65R-16718 (Newmarket).
Forested lands south of Mulock Drive around William Dunn Crescent	Criterion Development Corporation	Part of Block 6, Plan 65M-4099, designated as Parts 1, 2, 5 and 6 on Plan 65R-31269, PIN 03262-2313 and 03262-2312, Town of Newmarket, Regional Municipality of York.
William Thomas Mulock Park	Corporation of the Town of Newmarket	Part 44 on Plan 65R-16718 (Newmarket) being PIN 3589-0571, 3589-0572 and 3589-0429, (Newmarket).
John F. Smith Trail	Corporation of the Town of Newmarket	Part 64, Plan 65R-24258, Part 3 on Plan 65R-31269, Block 5 on Plan 65M-4099 and Part 4 on Plan 65R-31269 being PIN 3262-0535, Town of Newmarket, Regional Municipality of York.

1.4 Current and Proposed Future Uses

The Subject Property is and will remain forested. There will be no change in land use.

1.5 Applicable Site Condition Standard

To evaluate the soil and groundwater quality at the Subject Property, data was compared to generic standards established by the MOE (MOE 2011). The forested lands are within the Oak Ridges Moraine Conservation Plan area and include water courses (Armitage Creek and tributaries) that support the consideration of the Subject Property as an environmentally sensitive area for the purpose of establishing applicable generic standards. Soil standards for medium to fine textured soils were applied based on the silty clay underlying topsoil.

The full depth, background site condition standards listed in MOE Table 1 (MOE 2011) for residential, parkland, institutional, industrial, commercial, and community (RPI ICC) land uses were considered to apply to the Subject Property. These standards were used for comparison purposes to identify contaminants of concern that were then assessed through risk assessment. For those contaminants that exceeded the MOE Table 1 RPI ICC generic standards, property specific standards (PSS) were developed through the risk assessment (Table 2). For all other chemicals, the generic standards were considered to apply.

Table 2: Property Specific Standards for Contaminants of Concern in Soil and Groundwater

Contaminant	Soil PSS (µg/g)	Groundwater PSS (µg/L)
Arsenic	58	Not applicable
Barium	Not applicable	1,000
Boron	1.5	Not applicable
Chloride	Not applicable	790,000
DDD	0.026	Not applicable
DDE	0.48	Not applicable
Lead	460	10
Sodium	Not applicable	41,000

2.0 BACKGROUND INFORMATION

2.1 Physical Setting

The Subject Property is part of the Oak Ridges Moraine Conservation Plan Area and a Natural Heritage Evaluation and Environmental Impact Study (Ecoplans 2006) was conducted for Criterion. The report describes the site topography as follows:

- The topography “is gently rolling with a general slope eastwards towards Armitage Creek”. Streams (permanent and intermittent) on the north and south portions of the Subject Property “essentially frame the central upland area, described as a low-profile interfluvial ridge”. There are steep slopes locally, along Armitage Creek and its tributaries.

Geology was interpreted from publicly available surficial and quaternary mapping as well as site-specific findings (Ecoplans 2006 and Soil Engineers 2007). According to the Surficial Geology of Southern Ontario (OGS 2003), the Subject Property soil consists of silt and clay from glaciolacustrine deposits. The native soils are expected to have a low permeability. The

soil on the north portion of the Subject Property consists of sand with minor silt. These soils are expected to have a high permeability.

It was reported (Ecoplans 2006) that soils at the Subject Property consist of "predominantly a silty clay material with a varved structure, indicating a lacustrine origin". Layers of silt and occasional sand were noted to be saturated and seepage was noted to originate from these layers. In addition, "a layer of sandy silt on top of the silty clay was encountered at depth beneath the varved clay sequence, at the western limit of the site (along Bathurst Street, south of Mulock Drive). The texture of this soil also indicates a lacustrine deposit and is relatively impervious. A deposit of sandy silt till was also located below the silty clay deposit near the southeast corner of the site (just west of Armitage Creek). This layer is a glacial till deposit with a heterogeneous structure ranging from clay to gravel with occasional cobbles and boulders, however, sands and silts were the predominant components. This soil type was determined to have low permeability."

2.2 Past Investigations

MMM has provided environmental consulting services at the Subject Property and adjacent properties since the 1990s. Information obtained from previous reports was used to establish the background conditions prior to remediation.

- In June 1997, MMM Group (formerly Marshall Macklin Monaghan Ltd) completed a Phase I ESA for the Subject Property with an update in August 1999, including the Subject Property but extending beyond to Yonge Street. The report identified potential environmental concerns to the east of the Subject Property. An aboveground storage tank was observed, south of Mulock Drive, across from Doubletree Lane. In addition, a well was identified at a pump-house and waste material was observed near the hydro station. It was recommended that the well be decommissioned as per O. Reg. 903 and the waste material be removed and disposed of at a licensed landfill. No new issues were identified in the 1999 update (MMM 1999).
- The presence of arsenic in topsoil at the Subject Property was identified through a sampling program (Soil Engineers 2007) in preparation for the management of excess material during construction. Subsequent sampling of the topsoil was conducted by MMM to verify the distribution of arsenic across the Subject Property and to assess the presence or absence of other potential contaminants.
- MMM completed a Soil Management Plan at the Subject Property in September 2007 (MMM 2007). The soil management plan was prepared for the construction of a residential development at the Subject Property. As part of the development of the site, topsoil was removed and managed offsite.
- Delineation of the arsenic and lead in the topsoil identified impacts beyond the development and buffer lands, specifically in the pine plantation at the north of the Subject Property and the successional edge of the forest at the south entrance to the development off Bathurst Street (MMM 2008a). No evidence of impacts was identified within the mature woodlot along the south limit of the Subject Property. Based on these findings, it was concluded that the arsenic and lead impacts in the topsoil were residues from the use of pesticides when the Subject Property was used as an orchard (1920s to 1950s). The report documents the distribution of arsenic and lead in topsoil and potential management options.

- MMM completed an Environmental Closure Report (MMM 2008b) for the development lands and the surrounding buffer area in July 2008. The report documents the removal of arsenic-impacted topsoil from the Subject Property and concludes that the soil remaining at the development lands and buffer area is suitable for the intended land uses.
- A risk assessment was conducted by Intrinsik (May 2011) with additional investigation to support the assessment provided by R. J. Burnside & Associates Limited. The investigations conducted by Burnside, as reported in the risk assessment supported the findings of MMM and confirmed the extent of arsenic and lead in topsoil beyond the Criterion lands. The risk assessment report established PSS as documented in Table 1 and recommended the removal of topsoil where the concentration of arsenic and lead exceeded the PSS. The sampling data and recommended remediation areas are presented on R. J. Burnside Figure A (Areas Requiring Risk Management / Remedial Action) which is provided for completeness in Appendix A-1.

2.3 Potential Contaminants of Concern

Based on the use of the Subject Property as an orchard prior to 1955, there was a potential for arsenic and lead impacts in the topsoil. Prior to the late 1950s, lead arsenate was used in pesticides and herbicides, most commonly associated with orchards.

Results of analysis of topsoil samples confirmed that arsenic was present in the upper layer of topsoil at concentrations that exceeded the MOE generic site condition standards. The maximum measured concentration of arsenic in the topsoil at the Subject Property was 143 µg/g. Lead was measured at concentrations that were elevated compared to typical background but that exceeded the applied site condition standards only where the highest concentrations of arsenic were measured. The maximum measured concentration of lead in the topsoil at the Subject Property was 422 µg/g.

By the 1960s, lead arsenate had been replaced by DDT and sampling conducted at the Subject Property confirmed that degradation products of DDT (DDD and DDE) were present at maximum concentrations of 0.024 µg/g and 0.44 µg/g, respectively. The other contaminants of concern in Table 2 were identified because no values have been established for these parameters and detectable concentrations were measured at one or more locations.

3.0 SCOPE OF THE REMEDIATION

3.1 Overview of Remediation

The risk assessment identified six areas (Areas A to F on Figure 2) that required remediation to remove contamination associated with arsenic and lead in the topsoil. Previous sampling, conducted using a judgemental approach, provided distribution across the Subject Property at a frequency that supported the conclusion that remediation was not required beyond the six identified locations. The limits to the areas were established by extending the area from the initial point of exceedance of the PSS to the next sampling location at which the concentrations of contaminants were within the PSS.

The remediation work was conducted partly within regulated areas controlled by the Lake Simcoe and Region Conservation Area (LSRCA) and permits (Appendix A-2) were obtained from LSRCA and York Region, for the removal of trees within privately-owned lands. The remediation was conducted in accordance with the general and specific objectives outlined in

Ontario Regulation 153/04 (as amended). The sampling methods complied with the requirements established by the MOE in the *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*, 1997 and technical updates provided to support regulatory amendments. Once permits were obtained, the tasks in the remediation included:

- Preparing a Sampling and Analysis Plan (SAP) to identify the required sampling of soil from the exposed base and walls of excavations after remediation;
- Coordinating with Gateman-Milloy (GM), the contractor retained by Criterion to effect the remediation and restoration of the remediated areas. GM arranged clearance of utility locations near excavation locations through Ontario One-Call and a private utility locating subcontractor and completed the remediation excavations at the Subject Property. A MMM Field Technician was present onsite to collect verification soil samples. The topsoil was stripped to a depth of 0.2 m below grade (mbg) (0.3 mbg in Area C) in the remediation areas;
- Verification soil samples were collected and classified at each area of excavation for laboratory analysis;
- Verification soil samples were submitted to Maxxam, a Canadian Association for Laboratory Accreditation (CALA) accredited laboratory for chemical analysis of metals and inorganics, and organochlorine (OC) pesticides;
- Collecting QA/QC duplicate samples at a frequency of 10% throughout the field program, in compliance with regulatory requirements; and
- Comparing results of analysis for soil to the PSS or generic standards that applied to the Subject Property.

The remediation was completed under the supervision of MMM field staff from October to November 2012. Topsoil was replaced within the excavated areas in May 2013 to allow planting as part of the site restoration and in compliance with permits.

3.2 Media Investigated

The remediation involved the removal of topsoil from six areas (Areas A-F) at depths ranging from 0.2-0.3 m mbg. The total volume of soil removed was approximately 550 m^3.

The soil remaining after remediation was investigated through a SAP that was developed prior to the field investigation and which outlined the analytical sampling and rationale for sampling and analysis at each location. The contaminated areas are shown on Figure 2 and the SAP is provided in Appendix A-3. Sampling locations are shown on figures for each area, provided as Figures 3 to 8 (for Areas A to F, respectively).

The maximum depth of excavation did not encounter the local groundwater table; therefore, groundwater management was not required. This medium was not assessed as part of the investigation. The remediation areas did not extend into permanent water courses and no sediment sampling was included in the investigation.

3.3 Deviations From Sampling And Analysis Plan

The SAP prepared in advance of the soil remediation is included in Appendix A-3. The intent of the plan was followed during the remediation to ensure the removal of contaminated soil on the

Subject Property. Minor deviations to the plan were required based on field conditions, as identified in the following:

- Additional soil sampling was required in some areas of Areas A, B, C and D along the sidewalls and/or floor as the concentration of contaminants in soil at the assumed limits of remediation did not meet the applicable standards. Under the direction of a MMM Field Technician, GM completed further excavation along the sidewalls and/or floor and confirmation samples were collected until clean samples were achieved.

3.4 Impediments

There were no impediments that prevented completion of the original defined scope of the investigation presented in the SAP.

4.0 INVESTIGATION METHOD

4.1 General

The soil quality at the Subject Property was assessed at the six locations shown on Figure 2 through the collection of verification samples from open excavations.

Investigation methods followed Standard Operating Procedures (SOPs) prepared by MMM for the conduct of environmental investigations. The investigation methods are described in the following sections.

4.2 Excavation

GM began remediation excavation activities in Areas A, B, and E (Photograph 1) under the direction of MMM on October 24, 2012. The contaminated topsoil was stripped to a maximum depth of 0.2 mbg using an excavator with a smooth bucket (Photograph 2) to control the depth of the excavation and minimize mixing of topsoil and the underlying silt and sand. The contaminated topsoil was temporarily stockpiled in the center of each of the excavated areas and verification samples were collected along the floor and sidewalls based on the SAP. Following the same procedure, the excavation of Area C began on October 26, 2012 to a depth of 0.3 mbg. Areas D and F followed, with completion by November 5, 2012. Photographs 3 through 8 show remediated areas. Note that verification sampling locations are marked on the sedimentation control fencing surrounding the excavation areas.

After initial excavation, the concentrations of contaminants exceeded the applicable PSS and impacts remained in the following areas:

- The north wall at Area A,
- The north and east walls and one floor location at Area B,
- The east wall and four floor locations at Area C, and
- One floor location at Area D.

In these areas, additional excavation was conducted until the limits were confirmed to meet the applicable PSS.

4.3 Soil: Sampling

The sampling was conducted during remediation excavations and soil samples were collected from the exposed walls and base of the excavation. Samples were recovered with a clean, metal trowel or spade. Cross-contamination of the samples was prevented through the application of field protocols that included:

- Wiping the sampling tool clean between each sampling event to remove any soil that may have adhered to the surface of the device.
- Changing nitrile gloves at each sampling location.
- Opening the sampling jars only at the location of the sampling point.

The recovered soil samples were visually inspected and logged in the field to a record by a MMM technician indicating the colour, odour, texture, soil type, and moisture. Soil samples were placed into labelled laboratory glass jars and temporarily stored in a cooler with ice and maintained at a temperature between 1 and 10 degrees Celsius.

4.4 Field Screening Measurements

The contaminants of concern do not exhibit properties that can be differentiated with available field screening instruments. Visible differences between topsoil and the underlying silt and sand were used to guide the excavation depth. No field screening instruments were used.

4.5 Analytical Testing

Soil samples were analysed by Maxxam in Mississauga, Ontario, a laboratory accredited with the CALA and analytical work was conducted in accordance with Ontario Regulation 153/04 as amended. Soil samples were submitted for analysis of metals, inorganics, and OC pesticides. Laboratory Certificates of Analysis are included in Appendix A-4.

4.6 Contaminated Soil Management Procedures

The excavation and sampling was conducted as part of a remediation program. Contaminated soil was removed from the Subject Property for off-site disposal.

Verification samples were recovered from exposed surfaces of the excavations and no sampling spoils were generated as part of the program.

4.7 Elevation Surveying

Elevation surveying was not within the scope of this investigation. Topographic surveys of the Subject Property had been completed previously.

4.8 Quality Assurance and Quality Control Measures

Quality assurance and quality control of the soil samples was monitored and maintained in a number of ways:

- This field investigation was completed under operation of MMM SOPs for soil sampling, equipment decontamination and excavating. Any deviations from the SOPs are documented and referenced in this report.
- Samples were given unique identifications as they were collected, typically identifying the project number, date, location and area. The sample numbers were recorded in field notes for each location.
- Sample containers provided by the laboratory were used and laboratory requirements for sample size, container type, and preservatives were followed.
- The soil and contaminants within did not adhere to the metal sampling equipment, and prevention of cross-contamination was achieved through wiping the sampling equipment clean between uses.
- A chain-of-custody form was filled out for the samples prior to submitting the samples to the laboratory. The chain-of-custody documented sample movement from collection to receipt at the laboratory and provided sample identification, requested analysis and conditions of samples upon arrival at the laboratory (e.g., temperature, container status, etc.).
- Soil samples were randomly selected by the MMM field staff for duplicate testing. Approximately one blind field duplicate sample was submitted for analysis for every 10 samples submitted.
- Samples were randomly selected by the laboratory for Quality Assurance checks. Generally, one sample for every ten samples submitted is checked. For each parameter, there is an acceptable upper and lower limit for the measured concentration of the parameter. Measured concentrations of analysed samples must fall within the upper and lower acceptable limits in order for the sample to be valid. If a result exceeds the upper or lower acceptable limits, the sample must be re-analysed.

5.0 REVIEW AND EVALUATION

5.1 Geology

The Subject Property is located within the Oak Ridges Moraine Conservation Plan area and surficial geology generally consists of slit and clay from glacial lacustrine deposits. The remediation did not extend beyond 0.3 m and deeper geological features were not assessed as part of this investigation.

Based on field observations made during remedial activities, the soil stratigraphy in the upper 0.3 m in the excavated areas at the Subject Property generally consisted of topsoil underlain by silt.

5.2 Soil Texture

Based on grain size analyses conducted as part of the investigations to support the risk assessment (Intrinsik 2011), the texture of the soil covering at least one-third of the Subject Property was considered to be medium to fine.

5.3 Soil: Field Screening

Field screening was not used as part of the verification program.

5.4 Soil Quality

The location and type of chemical analysis of soil samples are provided in a summary of analytical results in Tables 3 through 9. Results for analysis of metals and inorganics are separated by area and are provided in Tables 3 through 8 for Areas A to F, respectively. Table 9 provides results for analysis of OC pesticides at the six remediation areas.

Interim sampling at Areas A, B, C and D indicated that concentrations of contaminants exceeding the PSS remained at either wall or floor sampling locations. Through the removal of this impacted soil, verification sampling confirmed that soil remaining at the Subject Property met the PSS.

Topsoil was imported from a nearby source at 1030 McNicoll Avenue, just east of Victoria Park, in Markham, Ontario. The source site had been used for a commercial building and was being redeveloped for a seniors centre. The construction was under the management of Trifield Construction. The contract required the replacement of approximately half the topsoil removed, with the volume made up by mulch. Approximately 250 m^3 of topsoil was imported to the Subject Property.

Topsoil had been stockpiled at the source site (Photograph 9) and the stockpiles were sampled at a greater frequency than that required by regulation by obtaining samples from the central portions of the stockpile at six locations (plus one duplicate sample) to provide data representative of the overall topsoil quality. Soil samples were submitted for analysis of metals and inorganics, as previous sampling conducted at the source site had confirmed that other possible contaminants were not a concern at the site. Results of sampling were compared to MOE Table 1 generic site condition standards (Table 10) and were accepted for site restoration.

The topsoil was transported to the Subject Property on May 1, 2013. Inspections were conducted by MMM at the source and receiving sites to confirm that the material remained consistent with that sampled.

5.5 Soil Disposal

Soil that was removed as part of the remediation excavation was hauled under sub-contract with Megacity Environmental by Joseph Haulage Canada Corporation (MOE Certificate of Approval No. A820-920) in tri-axle trucks to the Newalta Landfill at 65 Green Mountain Road in Stoney Creek, Ontario. Based on weigh tickets collected from the receiving site, 1,109 tonnes of soil (estimated to be 554.5 m^3) were removed from the Subject Property, as part of the remediation.

Soil was loaded into the tri-axle trucks from stockpiles established in the central area of each excavation. Upon removal of the stockpile, each area was scraped to ensure that no impacted topsoil remained on site.

5.6 Quality Assurance and Quality Control Results

Maxxam completed a variety of quality assurance/quality control (QA/QC) measures on the soil samples submitted as part of the sampling program. These QA/QC measures include: sample replicates, matrix spiked laboratory blanks, and process blanks. Analytical and quality control data were reviewed and have been validated by Maxxam. Copies of the Quality Assurance Reports and analytical methods are included with the Certificates of Analysis in Appendix A-4.

The samples submitted for laboratory analysis were collected in laboratory-supplied sample containers and analyzed within their applicable holding times using approved analytical methods. The Certificates of Analysis received from the laboratory indicate that the reporting limits (RLs) were met for the tested parameters. No tested parameter was present in a detectable concentration in the laboratory method blanks and surrogate recoveries were within acceptable ranges. Results of the laboratory matrix spike were within acceptable quality control limits.

MMM submitted 11 blind field duplicates for soil samples:

- A-5C2B-D was a duplicate of A-5C2B and analyzed for metals in soil;
- A-5C3G was a duplicate of A-5C3E and analyzed for metals in soil;
- A-FL-FD was a duplicate of A-FL-4 and analyzed for metals in soil;
- A-W-FD was a duplicate of B-W-6 and analyzed for metals in soil;
- C-W-FD was a duplicate of C-W-4 and analyzed for metals in soil;
- C-FL-4 was a duplicate of C-FL-FD and analyzed for metals in soil;
- C-FL5C-FD was a duplicate of C-FL5C-C and analyzed for metals in soil;
- D-W-FD was a duplicate of D-W-6 and analyzed for metals in soil;
- E-W-FD was a duplicate of E-W-2 and analyzed for metals in soil;
- B-FL-FDP was a duplicate of B-FL-2P and analyzed for OC pesticides in soil;
- D-FL-FDP was a duplicate of D-FL-2P and analyzed for OC pesticides in soil; and
- GS-FD was a duplicate of GS-5 for the sampling of source material for metals and inorganic parameters.

The results from the duplicate samples were used to assess the accuracy and reliability of the laboratory procedures and instruments.

A calculation of the relative percent difference (RPD) between the sample and its duplicate was performed and compared to laboratory RPD acceptance limits suggested by Maxxam (35% difference for metals and inorganics in soil). Because of analytical limitations near detection limits, RPD calculations are generally only considered to be an indication of data quality if the concentrations are more than three times the laboratory reporting limit for the individual parameters. The very low concentrations of OC pesticides measured in the soil were less than three times the laboratory reporting limits and therefore RPDs were not calculated for these parameters. For those duplicates where the concentrations were acceptable, the RPDs were calculated as presented in Table 11. The acceptable RPD was exceeded four times, as follows:

- A difference of 44% was calculated for arsenic at location C-FL-5C-C. The higher concentration of arsenic at this location was 3.6 µg/g, much lower than the MOE Table 1 standard of 18 µg/g and the PSS of 58 µg/g.
- A RPD of 63% was calculated for boron (hot water soluble) at location E-W-2. The higher concentration of 0.48 µg/g was much lower than the PSS of 1.5 µg/g.
- A RPD of 96% was calculated for copper at location C-FL-5C-C. The higher concentration of 24 µg/g was much lower than the MOE Table 1 standard of 92 µg/g.
- A RPD of 40% was calculated for zinc at location C-FL-5C-C. The higher concentration of 24 was much lower than the MOE Table 1 standard of 290 µg/g.

The results of the duplicate analysis indicate that the concentrations of contaminants in the soil are generally consistent and that the sampling methods produced data that can be relied upon in the assessment of soil quality at the Subject Property. The high RPD values calculated for the four instances noted above are related to relatively low concentrations of contaminants when compared to the applicable standards. Therefore the noted variability in contaminant concentrations would not affect the conclusions of the investigation (i.e., that remediation was effective in removing the unacceptably contaminated soil from the Subject Property).

5.7 Phase Two Conceptual Site Model

The Subject Property was historically used for an orchard that controlled pests with lead arsenate, resulted in contamination of the topsoil to a maximum depth of 0.3 m below grade. DDT degradation products were also measured at some locations across the Subject Property. This Phase Two CSM provides information based on the information and activities as documented in this report.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

The former use of the Subject Property for an orchard resulted in the release of lead arsenate and DDT as a pesticide. This PCA has resulted in a single area of potential environmental concern (APEC) that covers much of the Subject Property, with the exception of the mature natural forest to the south of the Summerhill Woods development. Based on the findings of previous environmental investigations, six areas within the planted forests required remediation for topsoil to meet established PSS.

Subsurface Structures and Utilities

No buried utilities or services are expected at the Subject Property.

Physical Setting

Data collected during the previous Phase Two ESAs and this remediation investigation support the following assessment which comprises the Phase Two ESA CSM for the Subject Property:

- Surrounding land uses include residential, parkland and undeveloped uses.
- The Subject Property is part of the Oak Ridges Moraine Conservation Plan Area and Armitage Creek and intermittent streams cross the Subject Property. Section 41 of Ontario Regulation 153/04 applies to the Subject Property.
- No water wells used for drinking are present on the Subject Property or within 500 m of the Subject Property.
- The Subject Property is not a shallow soil property.
- The Subject Property soil consists of silt and clay from glaciolacustrine deposits. The soil on the north portion of the Subject Property consists of sand with minor silt. Layers of silt and occasional sand were noted to be saturated and seepage was noted to originate from these layers. In addition, “a layer of sandy silt on top of the silty clay was encountered at depth beneath the varved clay sequence, at the western limit of the site (along Bathurst Street, south of Mulock Drive). The texture of this soil also indicates a lacustrine deposit and is relatively impervious. A deposit of sandy silt till was also located below the silty clay deposit near the southeast corner of the site (just west of Armitage Creek). This layer is a glacial till deposit with a heterogeneous structure ranging from clay to gravel with occasional cobbles and boulders, however, sands and silts were the predominant components.

- Site soil conditions to the south of Mulock Drive provide low permeability for contaminant migration and those north of Mulock Drive are more permeable; although the contaminants of concern are not expected to migrate in soil.
- Groundwater was encountered near surface in areas adjacent to Armitage Creek, but was generally more than 5 m below grade once removed from the creek area.
- Bedrock is expected to be more than 80 m below grade.

Buildings and Structures

The Subject Property is vacant and no buildings or above-ground structures are present or planned in the future.

Environmentally Sensitive Areas

The Subject Property is within a natural area and is part of the Oak Ridges Moraine Conservation Plan Area. For this reason, it is considered as environmentally significant for the purpose of assessing environmental conditions.

Imported Soil

Topsoil was imported to the Subject Property after remediation to allow for restoration of the forested areas with new plantings of native species. Topsoil was sampled at the source site and confirmed to be suitable for the intended land use prior to placement on the Subject Property.

Distribution and Extent of Soil and Groundwater Impacts

Contaminants at concentrations exceeding the PSS were removed from the Subject Property during remediation. The distribution of contaminants beyond these remediated areas is shown in Figure A, included in Appendix A-1.

The groundwater across the Subject Property has not been impacted by the historical use of lead arsenate and DDT and no remediation of groundwater was necessary.

Human and Ecological Receptors and Exposure Pathways

The risk assessment (Intrinsik 2011) considered possible occupants of the Subject Property to include nearby residents who may walk on the lands as well as ecological receptors in the form of flora and fauna who may frequent the site. The potential for exposure along anticipated pathways was reviewed and incorporated into the development of PSS for the Subject Property.

The risk assessment identified the need for administrative risk management measures to be implemented at the Subject Property to minimize the potential for exposure to human receptors who may visit. The requirement for the risk management measures are documented in the Certificates of Property Use (Appendix B-1) that have been established for the Subject Property. Separate certificates were established for the two land owners. The risk management measures include:

- Maintenance of the parkland configuration of the Subject Property and limits to access through a Site Access and Control Plan. The plan (Appendix B-2) describes the current conditions such as fencing (no gates are permitted in backyard fences) and vegetation that have been incorporated into the site conditions to discourage regular access to the land. Photographs 10 and 11 show the dense vegetation present at the Subject Property in and around the remediation areas. In addition, there are to be no changes to the park and woodland areas, such as the construction of subsurface utilities or active recreation

facilities. The Town of Newmarket will implement this plan for their lands through the Public Works Services Department and Criterion will ensure this plan is effective for the lands that remain within their ownership. This plan can be revised if site inspections identify opportunities for improvements.

- Preparation of a Soil Management Plan that will be implemented if activities will penetrate ground surface. No such work is planned. An outline of a Soil Management Plan (Appendix B-3) is provided in the event that an activity disturbing the soil is considered. In such an event, the undertaking must be planned and overseen by a Qualified Person as defined in Ontario Regulation 153/04. A copy of the final Soil Management Plan must be available for review if a Provincial Officer requests it. The content of the soil management plan must comply with the requirements of the Certificates of Property Use and it must reflect the planned activity. At a minimum, the soil management plan must include dust control measures to prevent tracking of soil beyond the area of contamination by vehicles and people, management of the excavation and equipment, characterization of materials to be disturbed and soil disposal requirements. Records must be kept for the project as well as the soil management activities that were implemented as a result of the risk management measures.
- The development and implementation of a Site Specific Health and Safety Plan for any activity that will expose on-site soil. This health and safety plan must be prepared by the contractor retained to conduct the subsurface work and the work must be overseen by a Qualified Person as defined in Ontario Regulation 153/04. The only planned activities at the Subject Property will be regular inspections to document the effectiveness of the Site Access and Control Plan and limited maintenance of vegetation. These activities will not result in the exposure of site soil and no specific health and safety plan is required. A note on the inspection form reiterates the need to minimize disturbance of the site soils and encourages safe work practices. The requirements of a health and safety plan are presented in Appendix B-4 for future reference.
- A site plan, including a drawing of the areas where remediation was completed must be provided to the MOE Director and the owner must maintain a copy of the plan on file. This information is to be submitted to the MOE Director (through the MOE District Engineer). This report satisfies this requirement of the risk management measures. Figures 3 to 8 document the remediation that was undertaken and soil conditions upon completion. The permit drawings included in Appendix A-2 document restoration activities.
- An inspection and maintenance program must be implemented to monitor the continuing effectiveness of the risk management measures. The Subject Property shall be inspected twice per year to document the condition of the perimeter slash-back, buffer lands and fencing. An Inspection and Maintenance Program is presented in Appendix B-5 and a Site Inspection and Activities form is provided in Appendix B-6. Any areas with vegetation loss, evidence of uncontrolled access or fencing deficiencies shall be identified and a revision to the Site Access and Control Plan shall be implemented to rectify the access issues. After two years of inspection, the owner may request that the frequency of the inspections be reduced to once per year, with support from the observations from the first two years of the program and written concurrence of the MOE Director.

The owner is required to maintain a copy of this report in their records and shall also maintain records of ongoing inspections and any site activities which result in the exposure of site soil. These records, along with the soil management plans and health and safety plans associated with site activities shall be available for inspection upon request by a Provincial Officer.

To facilitate the preparation and maintenance of site records, forms and plans are provided in Appendix B of this report. The owners shall maintain files that contain:

- This Remediation and Site Restoration report,
- Copies of the appropriate Certificates of Property Use (Appendix B-1),
- Access and Control Plan (Appendix B-2) as may be modified by site activities,
- Any soil management plans prepared for site activities (based on Appendix B-3),
- Any health and safety plans prepared for site activities (base on Appendix B-4), and
- Implementation of the Inspection and Maintenance Program (Appendix B-5) through the completion of site inspection and activities forms (Appendix B-6).

Remedial Actions

Remedial actions were implemented to remove contaminants of concern in soil in compliance with the recommendations of the risk assessment. Restoration of the excavated areas was substantially completed in July 2013 (Photograph 12). Minor plantings will be completed in the fall at which time the sediment control fencing will be removed.

6.0 CONCLUSIONS

The Subject Property was historically used as an orchard and the control of pests using lead arsenate and DDT resulted in contamination of topsoil in some locations that had since been allowed to reforest.

A risk assessment, conducted to identify areas that required remediation for the protection of human and ecological receptors, identified six areas requiring the removal of topsoil to a maximum depth of 0.3 m. The remediation was conducted in October and November 2012 and topsoil was imported to allow restoration of the areas in May 2013.

Based on the results of verification sampling conducted at the limits of the remedial excavations and confirmation of the suitability of imported topsoil, soil quality at the Subject Property meets the applicable site condition standards and no further remediation is required.

The risk assessment recommended administrative and site controls be implemented to manage the health and safety risks to users of the Subject Property, to manage the movement of soil and to discourage access to the Subject Property. These administrative measures would control future exposures to contaminants remaining beyond the limits of remediated areas.

The required risk management measures include plans and forms to document maintenance and management in perpetuity. The required documentation is outlined in Appendix B and will include:

- This Remediation and Site Restoration report,
- Copies of Certificates of Property Use,
- Access and Control Plan,
- Soil management plans for specific site activities that may disturb site soils,
- Health and safety plans for site activities that may disturb site soils, and
- Completed site inspection and activity forms as part of the Inspection and Maintenance Program.

Based on the effective completion of the remediation within the Criterion-owned lands, the municipal requirements for conveyance have been met and the lands are suitable for transfer to the Town of Newmarket.

7.0 QUALIFICATIONS OF ASSESSORS

7.1 MMM Group Limited

For six decades, MMM Group Limited has offered comprehensive consulting services in design, planning, project management, contract administration and construction inspection services in the environmental engineering, municipal engineering, urban development and recreational development fields. The firm employs approximately 2,000 professional, technical and administrative staff, in offices across Canada. The Environmental Management Department specializes in conducting Phase One, Two and Three Environmental Site Assessments, hazardous materials assessment, removal of underground storage tanks, groundwater investigations and site remediation.

7.2 Qualified Person

The Phase Two ESA was supervised by Carolyn I. Adams, M.A.Sc., P.Eng., Department Manager and an Associate Partner with MMM. She is a chemical engineer with 23 years of experience and has conducted hundreds of Phase One and Phase Two ESAs, including hazardous materials surveys at industrial, commercial and residential properties. Ms. Adams is a registered Qualified Person under Ontario Regulation 153/04, as amended. She is familiar with operating practices and production materials that may have an adverse impact on the environment and had conducted remedial actions at contaminated sites to address these impacts. Her involvement with the remediation and verification sampling allows her to arrive at the conclusions presented in this report.

7.3 Technical Support

The field work and technical report preparation were completed by Rebecca Wheater, B.Sc., an Environmental Scientist with MMM. She conducts Phase One and Two Environmental Site Assessments including document research, site visits, interviews, and reporting. As well, she implements field investigations, including soil sampling through drilling, test pitting and surface sampling and groundwater monitoring and sampling.

7.4 Signatures

This remediation and verification sampling was conducted by the undersigned Qualified Person in accordance with the requirements of Ontario Regulation 153/04, as amended. Remediation of soil has resulted in the soil quality at the Subject Property meeting applicable property specific standards. She authorizes the issuance of this report on behalf of:

MMM GROUP LIMITED

Carolyn Adams, M.A.Sc., P.Eng., QP_{ESA}
Manager
Environmental Management

8.0 STANDARD LIMITATIONS

This report has been prepared for use by Criterion Development Corporation in accordance with generally accepted environmental investigation practices at the time of the assessment. We understand that the report will be reviewed by the Corporation of the Town of Newmarket as part of the land conveyance process. The Town's peer reviewer may also review this report to provide an opinion to the Town. Limitations that affect the use of this report by these identified parties are presented in Appendix C.

9.0 REFERENCES

Ecoplans Limited, *Natural Heritage Evaluation and Environmental Impact Study, Southwest Newmarket*, prepared for Criterion Development Corporation, March 2006.

Intrinsik Environmental Services Inc., *A Risk Assessment of the Former Mulock Farm Property, Newmarket, Ontario*, prepared for R.J. Burnside & Associates, Town of Newmarket and Criterion Development Corporation, May 2011.

Ministry of the Environment, *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*, April 15, 2011.

Ministry of the Environment, *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*, December 1996.

Marshall Macklin Monaghan Limited, *Phase I Environmental Site Assessment Update – South Side of Mulock Drive, Newmarket, Ontario*. August 1999.

MMM Group Limited, *Soil Management Plan, Summerhill Woods Development, Newmarket, Ontario*. September 2007.

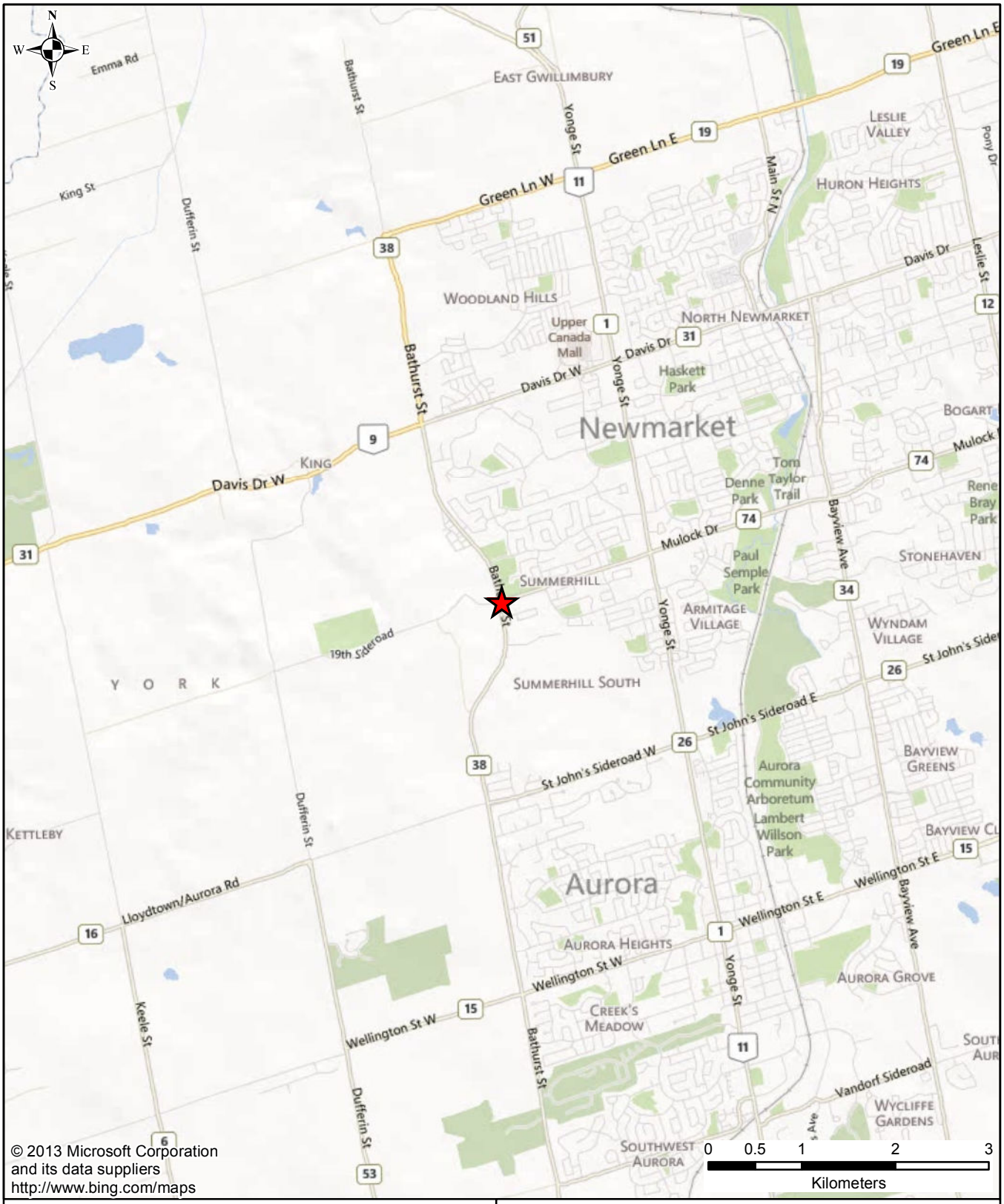
MMM Group Limited, *Review of Soil Management Options, Forested Areas at Summerhill Woods, Newmarket, Ontario*. March 2008a.

MMM Group Limited, *Environmental Closure Report, Summerhill Woods Development, Newmarket, Ontario*. July 2008b.

R.J. Burnside & Associates Limited, *Phase II Environmental Site Assessment, Parklands at Mulock Drive and Bathurst Street, Town of Newmarket,* prepared for Town of Newmarket. January 2010.

Soil Engineers Limited, *Soil Sampling and Chemical Testing, Summerhill Woods Residential Subdivision, Mulock Drive and Bathurst Street, Town of Newmarket*, prepared for Criterion Development Corporation, July 2007.

FIGURES



J:\1442 Projects by Job Number\2005 Jobs\10-05015 Criterion Newmarket\Mapping\MXD\Figure 1 Site Location.mxd

Legend

Site Location

Client:	**Criterion Developments**
Title:	**Site Location**
Prepared by:	MMM GROUP
10-05015-018-RPT	Scale as Shown / Review: CIA
Date: July 2013	**Figure: 1**
© Queen's Printer for Ontario	

J:\1442 Projects by Job Number\2005 Jobs\10-05015 Criterion Newmarket\Mapping\MXD\Figure 2 Site Plan.mxd

Legend

Arsenic Impacted Areas

Client:	**Criterion Developments**
Title:	**Site Plan**
Prepared by:	MMM GROUP
10-05015-018-RPT	Scale as Shown — Review: CIA
Date: July 2013	**Figure: 2**
© Queen's Printer for Ontario	

J:\1442 Projects by Job Number\2005 Jobs\10-05015 Criterion Newmarket\Mapping\MXD\Figure A Area A Sample Locations.mxd

Legend

Confirmatory Sample Locations

- Floor
- Wall
- Interm Floor Confirmatory Samples
- Interm Wall Confirmatory Samples
- Initial Estimated Limit of Area A
- Final Limits of Remediated Area A

Client: **Criterion Developments**

Title: **Area A Confirmatory Sample Locations**

Prepared by: MMM GROUP

10-05015-018-RPT	Scale as Shown	Review: CIA
Date: July 2013	**Figure: 3**	
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Legend

Confirmatory Sample Locations

- Floor
- Wall
- Interm Floor Confirmatory Sample
- Interm Wall Confirmatory Sample
- Final Limits of Remediated Area B

Client: **Criterion Developments**

Title: **Area B Confirmatory Sample Locations**

Prepared by: MMM GROUP

10-05015-018-RPT	Scale as Shown	Review: CIA
Date: July 2013	**Figure: 4**	
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J:\1442 Projects by Job Number\2005 Jobs\10-05015 Criterion Newmarket\Mapping\MXD\Figure B Area B Sample Locations.mxd

J:\1442 Projects by Job Number\2005 Jobs\10-05015 Criterion Newmarket\Mapping\MXD\Figure C Area C Sample Locations.mxd

Legend

Confirmatory Sample Locations

- Floor
- Wall
- Interm Floor Confirmatory Sample
- Interm Wall Confirmatory Sample
- Initial Estimated Limit of Area C
- Final Limits of Remediated Area C

Client: **Criterion Developments**

Title: **Area C Confirmatory Sample Locations**

Prepared by: MMM GROUP

10-05015-018-RPT	Scale as Shown	Review: CIA
Date: July 2013	**Figure: 5**	
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J:\1442 Projects by Job Number\2005 Jobs\10-05015 Criterion Newmarket\Mapping\MXD\Figure D Area D Sample Locations.mxd

Legend

Confirmatory Sample Locations

- Floor
- Wall
- Interm Floor Confirmatory Sample
- Final Limits of Remediated Area D

Client: **Criterion Developments**

Title: **Area D Confirmatory Sample Locations**

Prepared by: MMM GROUP

10-05015-018-RPT	Scale as Shown	Review: CIA
Date: July 2013	**Figure: 6**	
© Queen's Printer for Ontario		

J:\1442 Projects by Job Number\2005 Jobs\10-05015 Criterion Newmarket\Mapping\MXD\Figure E Area E Sample Locations.mxd

Legend

Confirmatory Sample Locations

- Floor
- Wall
- Final Limits of Remediated Area E

Client: **Criterion Developments**

Title: **Area E Confirmatory Sample Locations**

Prepared by: MMM GROUP

10-05015-018-RPT	Scale as Shown	Review: CIA
Date: July 2013	**Figure: 7**	

J:\1442 Projects by Job Number\2005 Jobs\10-05015 Criterion Newmarket\Mapping\MXD\Figure F Area F Sample Locations.mxd

Legend

Confirmatory Sample Locations

- Floor
- Wall
- Final Limits of Remediated Area F

Client: **Criterion Developments**

Title: **Area F Confirmatory Sample Locations**

Prepared by: MMM GROUP

10-05015-018-RPT	Scale as Shown	Review: CIA
Date: July 2013	**Figure: 8**	
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PHOTOGRAPHS

Photograph 1: Access road to Areas A, B and E.

Photograph 2: Contaminated topsoil removed with smooth bucket to control interface with underlying soil.

Photograph 3: Excavated Remediation at Area A.

Photograph 4: Excavated remediation at Area B.

Photograph 5: Excavated Remediation at Area C.

Photograph 6: Excavated Remediation at Area D.

Photograph 7: Excavated Remediation at Area E.

Photograph 8: Excavated Remediation at Area F.

Photograph 9: Replacement topsoil being loaded at source site – 1030 McNicoll Avenue.

Photograph 10: Dense vegetation evident beyond access road at Area D.

Photograph 11: Dense vegetation at Area F.

Photograph 12: Restoration Planting in Summer 2013.

TABLES

Table 3: Area A - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	A-W-1 B2G6842 24-Oct-2012	A-W-2 B2G6842 24-Oct-2012	A-W-3 B2G6842 24-Oct-2012	A-W-4 B2G6842 24-Oct-2012	A-W-5 B2G6842 24-Oct-2012	A-W-5C1 B2H1251 1-Nov-2012	A-W-5C1A B2H1251 31-Oct-2012	A-W-5C2 B2H1251 1-Nov-2012	A-W-5C2A B2H1251 31-Oct-2012	A-5C2B AVERAGE B2H4857 7-Nov-2012
Metals and Inorganics													
Antimony	1.3	0.2	ug/g	<0.20	<0.20	0.48	0.53	1.4	0.91	0.65	1.3	1.1	0.6
Arsenic	58 [1]	1	ug/g	3.8	11	40	33	**110**	**76**	38	**110**	**100**	55.5
Barium	220	0.5	ug/g	18	43	43	40	55	49	51	68	65	45.5
Beryllium	2.5	0.2	ug/g	<0.20	0.21	0.32	0.29	0.36	0.36	0.43	0.53	0.5	0.365
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.15	0.29	0.4	0.89	0.66	1.4	0.7	0.67	0.83	0.745
Cadmium	1.2	0.1	ug/g	<0.10	0.11	0.21	0.18	0.28	0.26	0.18	0.29	0.23	0.185
Chromium	70	1	ug/g	6	11	13	12	15	12	13	16	16	12
Cobalt	21	0.1	ug/g	2.2	4.2	4.4	4.4	5.8	4.7	5.1	6.6	6.4	4.45
Copper	92	0.5	ug/g	4.5	12	16	17	48	39	32	48	65	35
Lead	460 [1]	1	ug/g	6.3	46	130	110	270	250	98	340	320	185
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	3.7	6.9	7.1	7.3	10	8.7	8.4	12	12	8.7
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	<0.050	0.061	0.081	0.081	0.13	0.11	0.082	0.14	0.14	0.0945
Vanadium	86	5	ug/g	15	21	25	25	28	22	23	29	28	22
Zinc	290	5	ug/g	14	42	36	29	52	42	37	52	51	36
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.28	0.34	0.41	0.39	0.35	0.35	0.38	0.41	0.35	0.34

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100	Exceeds Applicable Soil Standard

Table 3: Area A - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	A-5C2C B2H4857 7-Nov-2012	A-W-5C3 B2H1251 1-Nov-2012	A-W-5C3A B2H1251 31-Oct-2012	A-5C3B B2H4857 7-Nov-2012	A-5C3C B2H4857 7-Nov-2012	A-5C3D B2H6806 9-Nov-2012	A-5C3E B2H6806 9-Nov-2012	A-5C3D B2H8951 14-Nov-2012	A-5C3H B2I0690 16-Nov-2012	A-5C3I B2I0690 16-Nov-2012
Metals and Inorganics													
Antimony	1.3	0.2	ug/g	0.7	0.72	0.9	<0.20	0.75	0.66	0.9	1	0.49	0.42
Arsenic	58 [1]	1	ug/g	52	**67**	**86**	8.9	**61**	49	**83**	**74**	28	35
Barium	220	0.5	ug/g	54	39	42	45	49	47	47	57	55	61
Beryllium	2.5	0.2	ug/g	0.41	0.29	0.34	0.33	0.35	0.33	0.35	0.47	0.43	0.43
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.74	0.76	0.97	0.54	0.92	1.1	1.1	0.7	0.46	0.7
Cadmium	1.2	0.1	ug/g	0.22	0.21	0.22	0.17	0.21	0.21	0.22	0.25	0.21	0.2
Chromium	70	1	ug/g	13	9.9	12	10	12	12	12	15	14	15
Cobalt	21	0.1	ug/g	5	3.8	4.2	4	4.6	4.5	4.5	5.7	5.3	5.7
Copper	92	0.5	ug/g	33	35	48	16	47	29	52	45	21	25
Lead	460 [1]	1	ug/g	160	160	300	28	180	140	300	230	86	110
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	9.5	6.6	7.9	7.4	8.3	8.3	8.3	11	10	11
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	0.1	0.08	0.1	0.061	0.1	0.081	0.11	0.12	0.1	0.11
Vanadium	86	5	ug/g	23	19	21	20	22	21	21	26	25	27
Zinc	290	5	ug/g	37	29	44	31	36	36	36	40	34	39
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.32	0.38	0.3	0.29	0.33	0.31	0.34	0.4	0.31	0.48

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100 Exceeds Applicable Soil Standard

Table 3: Area A - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	A-5C3E AVERAGE B2H8951 14-Nov-2012	A-5C3F B2H8951 14-Nov-2012	A-W-6 B2G6842 24-Oct-2012	A-W-7 B2G6842 24-Oct-2012	A-W-8 B2G6842 24-Oct-2012	A-FL-1 B2G6842 24-Oct-2012	A-FL-2 B2G6842 24-Oct-2012	A-FL-3 B2G7803 26-Oct-2012	A-FL-4 AVERAGE B2G7803 26-Oct-2012	A-FL-5 B2G7803 26-Oct-2012
Metals and Inorganics													
Antimony	1.3	0.2	ug/g	0.29	0.71	0.36	0.39	<0.20	0.36	0.23	0.29	0.51	<0.20
Arsenic	58 [1]	1	ug/g	20	52	23	23	8.1	23	5.8	17	36.5	3.2
Barium	220	0.5	ug/g	52.5	47	36	39	36	39	45	41	40	15
Beryllium	2.5	0.2	ug/g	0.42	0.38	0.32	0.29	0.21	0.35	0.28	0.37	0.335	<0.20
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.785	0.88	0.73	0.78	0.38	0.47	0.26	0.25	0.58	0.14
Cadmium	1.2	0.1	ug/g	0.18	0.19	0.16	0.19	0.12	0.16	0.18	0.14	0.205	<0.10
Chromium	70	1	ug/g	13.5	12	11	12	8.7	12	14	12	12	6.7
Cobalt	21	0.1	ug/g	5.15	4.5	3.8	3.9	2.9	4.1	4.4	4.4	4.35	2.1
Copper	92	0.5	ug/g	25	36	15	16	7.8	14	8.4	10	20.5	5.4
Lead	460 [1]	1	ug/g	60	160	80	68	27	74	14	49	115	13
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	9.45	7.7	6.6	6.2	5	7.2	6.7	7.1	7.45	3.7
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	0.69	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	0.09	0.089	0.06	0.059	<0.050	0.064	0.063	0.065	0.078	<0.050
Vanadium	86	5	ug/g	23.5	22	24	23	19	25	25	25	24.5	16
Zinc	290	5	ug/g	37	35	26	27	30	28	28	28	33.5	20
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.32	0.37	0.36	0.32	0.31	0.36	0.38	0.4	0.39	0.29

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100 Exceeds Applicable Soil Standard

Table 4: Area B - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	B-W-1 B2G6821 25-Oct-2012	B-W-1C1 B2H1246 1-Nov-2012	B-W-1C2 B2H1246 1-Nov-2012	B-W-1C3 B2H1246 1-Nov-2012	B-W-2 B2G6821 25-Oct-2012	B-W-3 B2G6821 25-Oct-2012	B-W-3C1 B2H1246 1-Nov-2012	B-W-3C2 B2H1246 1-Nov-2012	B-W-3C3 B2H1246 1-Nov-2012	B-W-4 B2G6821 25-Oct-2012	B-W-5 B2G6821 25-Oct-2012	B-W-5C1 B2H1246 1-Nov-2012
Metals and Inorganics															
Antimony	1.3	0.2	ug/g	0.73	0.47	0.28	0.4	<0.20	1.3	0.55	0.62	0.24	0.36	0.89	0.24
Arsenic	58 [1]	1	ug/g	**75**	32	18	25	17	**64**	38	39	15	18	**68**	16
Barium	220	0.5	ug/g	47	41	52	63	54	83	59	61	68	62	61	40
Beryllium	2.5	0.2	ug/g	0.38	0.35	0.4	0.47	0.34	0.6	0.49	0.56	0.48	0.41	0.48	0.38
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.72	0.99	0.72	1.1	0.49	0.71	0.96	1.1	0.56	0.68	0.67	0.87
Cadmium	1.2	0.1	ug/g	0.22	0.23	0.19	0.25	0.18	0.24	0.17	0.17	0.27	0.31	0.2	0.18
Chromium	70	1	ug/g	14	11	14	16	13	21	15	15	18	18	16	12
Cobalt	21	0.1	ug/g	4.9	4.1	4.6	5.8	4.6	8.1	5.6	5.8	5.4	5.5	6	4
Copper	92	0.5	ug/g	25	20	14	26	16	25	33	24	21	17	**170**	16
Lead	460 [1]	1	ug/g	230	99	51	72	61	200	120	130	38	59	230	47
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	9.1	7.5	8.2	11	7.8	16	10	12	9.5	9.6	11	7.1
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	0.85	0.58	<0.50	<0.50	0.53	0.58	0.69	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	0.11	0.067	0.073	0.096	0.076	0.18	0.098	0.12	0.091	0.087	0.13	0.067
Vanadium	86	5	ug/g	24	20	22	23	20	35	24	24	24	27	26	21
Zinc	290	5	ug/g	73	32	32	46	43	51	38	41	42	48	43	29
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	5.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.43	0.36	0.37	0.37	0.31	0.42	0.36	0.4	0.42	0.36	0.41	0.31

Notes:
[1]: Indicates Property Specific Standard established through risk assessment
AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100 Exceeds Applicable Soil Standard

Table 4: Area B - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	B-W-5C2 B2H1246 1-Nov-2012	B-W-5C3 B2H1246 1-Nov-2012	B-W-6 AVERAGE B2G6821 25-Oct-2012	B-W-7 B2G6821 25-Oct-2012	B-W-8 B2G6821 25-Oct-2012	B-FL-1 B2G6821 25-Oct-2012	B-FL-4 B2G6821 25-Oct-2012	B-FL-2 B2G7804 26-Oct-2012	B-FL-3 B2G7804 26-Oct-2012	B-FL-3C1 B2H1246 1-Nov-2012	B-FL-3C2 B2H1246 1-Nov-2012	B-FL-3C3 B2H1246 1-Nov-2012
Metals and Inorganics															
Antimony	1.3	0.2	ug/g	0.66	0.58	0.56	0.24	0.22	0.28	<0.20	0.5	0.72	0.55	0.47	0.28
Arsenic	58 [1]	1	ug/g	30	46	48.5	21	22	5.9	3.7	35	**62**	46	35	17
Barium	220	0.5	ug/g	58	64	47.5	62	60	80	51	67	65	67	69	96
Beryllium	2.5	0.2	ug/g	0.52	0.5	0.385	0.44	0.41	0.47	0.31	0.52	0.47	0.48	0.47	0.71
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	1.2	0.86	0.635	0.54	0.77	0.53	0.14	0.47	0.5	0.99	0.63	1
Cadmium	1.2	0.1	ug/g	0.19	0.22	0.22	0.22	0.23	0.41	0.13	0.22	0.21	0.23	0.25	0.27
Chromium	70	1	ug/g	14	15	13	16	18	26	16	18	18	17	16	20
Cobalt	21	0.1	ug/g	5.4	6	4.5	5.4	4.8	6.2	4.3	7.1	6.5	6.3	5.8	8.3
Copper	92	0.5	ug/g	22	64	30	20	17	16	8.3	25	36	82	37	29
Lead	460 [1]	1	ug/g	97	130	175	70	68	15	9.8	110	210	160	110	50
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	10	11	7.6	9.7	8.1	12	8.5	13	11	11	10	18
Selenium	1.5	0.5	ug/g	<0.50	<0.50	0.755	0.56	0.56	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	0.12	<0.050	0.0935	0.097	0.077	0.091	0.072	0.11	0.12	0.1	0.093	0.13
Vanadium	86	5	ug/g	24	25	21.5	23	22	29	25	31	29	24	24	32
Zinc	290	5	ug/g	37	44	35	47	39	51	27	48	50	57	43	53
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.5
Uranium	2.5	0.05	ug/g	0.36	0.36	0.365	0.37	0.37	0.52	0.33	0.42	0.45	0.42	0.36	0.41

Notes:

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Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100 Exceeds Applicable Soil Standard

Table 4: Area B - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	B-FL-5 B2G7804 26-Oct-2012	B-FL-6 B2G7804 26-Oct-2012
Metals and Inorganics					
Antimony	1.3	0.2	ug/g	0.34	0.43
Arsenic	58 [1]	1	ug/g	25	31
Barium	220	0.5	ug/g	58	91
Beryllium	2.5	0.2	ug/g	0.4	0.52
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.49	0.55
Cadmium	1.2	0.1	ug/g	0.24	0.28
Chromium	70	1	ug/g	18	25
Cobalt	21	0.1	ug/g	5	6.9
Copper	92	0.5	ug/g	19	21
Lead	460 [1]	1	ug/g	86	110
Molybdenum	2	0.5	ug/g	<0.50	0.54
Nickel	82	0.5	ug/g	8.6	13
Selenium	1.5	0.5	ug/g	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20
Thallium	1	0.05	ug/g	0.084	0.12
Vanadium	86	5	ug/g	25	31
Zinc	290	5	ug/g	41	48
Boron (Total)	36	5	ug/g	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.35	0.45

Notes:
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Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100 Exceeds Applicable Soil Standard

Table 5: Area C - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	C-W-1 B2G7788 26-Oct-2012	C-W-2 B2G7788 26-Oct-2012	C-W-3 B2G7788 26-Oct-2012	C-W-4 AVERAGE B2G7788 27-Oct-2012	C-W-5 B2G7788 26-Oct-2012	C-W-5C1 B2H1239 1-Nov-2012	C-5-C1A B2H3155 5-Nov-2012	C-5-C1B B2H3155 5-Nov-2012	C-5-C1C B2H3155 5-Nov-2012	C-W-5C2 B2H1239 1-Nov-2012	C-W-5C3 B2H1239 1-Nov-2012	C-5-C3A B2H3155 5-Nov-2012
Metals and Inorganics															
Antimony	1.3	0.2	ug/g	0.63	0.49	0.88	0.48	1.1	1.2	0.49	0.42	1.2	0.69	1.1	0.79
Arsenic	58 [1]	1	ug/g	48	32	55	18	**66**	**81**	32	33	**110**	50	**100**	**73**
Barium	220	0.5	ug/g	31	28	34	29.5	30	39	55	38	36	31	29	31
Beryllium	2.5	0.2	ug/g	0.29	0.3	0.21	0.28	0.23	0.32	0.45	0.3	0.3	0.3	0.25	0.26
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	1.1	0.71	0.37	0.375	0.32	0.7	0.65	0.6	0.45	0.59	0.52	0.61
Cadmium	1.2	0.1	ug/g	0.21	0.15	0.22	0.13	0.14	0.22	0.14	0.16	0.2	0.18	0.21	0.15
Chromium	70	1	ug/g	9.2	10	10	9.4	10	9.5	14	11	10	8.7	7.9	9.3
Cobalt	21	0.1	ug/g	2.9	3.2	3.2	2.95	3.1	3.3	5.2	3.2	3.1	2.9	2.5	2.8
Copper	92	0.5	ug/g	20	17	34	15	28	37	36	22	57	35	49	33
Lead	460 [1]	1	ug/g	160	100	170	58.5	160	180	110	98	340	160	270	180
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	5.1	5.6	5.7	4.9	5.6	6	10	6.8	6.2	5.2	4.9	5.2
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	0.067	0.063	0.094	0.0525	0.067	0.079	0.083	0.053	0.078	0.062	0.074	0.065
Vanadium	86	5	ug/g	21	25	23	22.5	23	20	24	18	19	17	16	19
Zinc	290	5	ug/g	34	24	28	20.5	24	30	35	26	30	26	25	24
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.67	0.34	0.44	0.33	0.47	0.29	0.35	0.28	0.37	0.31	0.27	0.33

Notes:

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Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100	Exceeds Applicable Soil Standard

Table 5: Area C - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	C-5-C3B B2H3155 5-Nov-2012	C-5-C3C B2H3155 5-Nov-2012	C-5C3D B2H4849 7-Nov-2012	C-5C3E B2H4849 7-Nov-2012	C-5C3F B2H4849 7-Nov-2012	C-5C3F-D B2H4849 7-Nov-2012	C-W-6 B2G7788 26-Oct-2012	C-W-6C1 B2H1239 1-Nov-2012	C-W-6C2 B2H1239 1-Nov-2012	C-W-6C3 B2H1239 1-Nov-2012	C-6-C 3 A B2H3155 5-Nov-2012
Metals and Inorganics														
Antimony	1.3	0.2	ug/g	0.89	0.46	0.37	0.44	0.46	0.53	1.3	0.76	0.73	**1.4**	1.1
Arsenic	58 [1]	1	ug/g	**89**	31	21	30	26	29	**83**	54	43	**100**	**95**
Barium	220	0.5	ug/g	31	24	26	25	31	31	33	46	40	35	40
Beryllium	2.5	0.2	ug/g	0.27	0.24	0.27	0.22	0.29	0.28	0.28	0.34	0.32	0.32	0.31
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.63	0.37	0.61	0.5	0.49	0.49	0.68	0.68	0.71	0.69	0.72
Cadmium	1.2	0.1	ug/g	0.21	0.13	0.11	<0.10	0.14	0.14	0.17	0.19	0.18	0.21	0.22
Chromium	70	1	ug/g	10	8.6	9.3	8	9.5	9.1	11	11	9.8	9.7	10
Cobalt	21	0.1	ug/g	2.8	2.4	3	2.6	3	3	3.3	3.7	3.3	3.4	3.4
Copper	92	0.5	ug/g	44	22	18	17	31	21	29	31	24	47	49
Lead	460 [1]	1	ug/g	250	96	61	85	76	82	220	160	130	300	280
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	5.4	4.5	5.7	4.9	5.6	5.5	5.7	6.4	5.7	6	5.6
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	0.071	<0.050	0.054	0.06	0.055	0.055	0.086	0.065	0.066	0.077	0.078
Vanadium	86	5	ug/g	19	18	20	18	20	20	23	21	19	20	20
Zinc	290	5	ug/g	26	21	21	19	24	21	26	30	26	26	28
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.37	0.3	0.3	0.26	0.33	0.31	0.38	0.36	0.33	0.41	0.3

Notes:

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100	Exceeds Applicable Soil Standard

Table 5: Area C - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	C-6-C 3 B B2H3155 5-Nov-2012	C-6-C 3 C B2H3155 5-Nov-2012	C-6C3D B2H3155 7-Nov-2012	C-6C3E B2H3155 7-Nov-2012	C-6C3F B2H3155 7-Nov-2012	C-6C3G B2H3155 9-Nov-2012	C-6C3H B2H3155 9-Nov-2012	C-6C3I B2H3155 9-Nov-2012	C-W-7 B2G7788 26-Oct-2012	C-W-8 B2G7788 26-Oct-2012	C-FL-1 B2G7788 26-Oct-2012
Metals and Inorganics														
Antimony	1.3	0.2	ug/g	**1.4**	**1.7**	0.97	0.89	1.1	0.74	0.64	0.34	0.73	0.8	0.6
Arsenic	58 [1]	1	ug/g	**100**	**140**	**89**	**79**	**79**	46	44	23	38	54	30
Barium	220	0.5	ug/g	39	35	38	44	44	51	42	52	30	38	28
Beryllium	2.5	0.2	ug/g	0.32	0.3	0.35	0.38	0.36	0.46	0.33	0.4	0.25	0.3	0.21
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.98	0.8	0.98	1	0.86	0.58	0.56	0.36	0.45	0.44	0.38
Cadmium	1.2	0.1	ug/g	0.21	0.21	0.17	0.17	0.18	0.2	0.14	0.15	0.15	0.22	0.13
Chromium	70	1	ug/g	10	11	11	13	12	14	10	13	9.7	11	9.8
Cobalt	21	0.1	ug/g	3.4	3.1	3.5	4.2	4.2	4.8	3.7	4.7	3	3.6	3.3
Copper	92	0.5	ug/g	55	55	38	43	37	38	38	38	23	34	13
Lead	460 [1]	1	ug/g	300	380	270	230	220	150	140	70	120	210	72
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	5.9	5.5	6.2	8	7.9	10	7.8	9.8	5.3	6.6	5.6
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	0.089	0.098	0.077	0.089	0.082	0.096	0.081	0.086	0.066	0.078	<0.050
Vanadium	86	5	ug/g	19	18	21	23	21	25	19	24	22	24	23
Zinc	290	5	ug/g	28	25	30	30	31	36	34	37	24	31	23
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.28	0.45	0.42	0.44	0.36	0.35	0.28	0.34	0.35	0.95	0.32

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100	Exceeds Applicable Soil Standard

Table 5: Area C - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	C-FL-2 B2G7788 26-Oct-2012	C-FL-3 B2G7788 26-Oct-2012	C-FL-3C1 B2H1239 1-Nov-2012	C-FL-3C2 B2H1239 1-Nov-2012	C-FL-3C3 B2H1239 1-Nov-2012	C-FL-4 AVERAGE B2G7788 27-Oct-2012	C-FL-4C1 B2H1239 1-Nov-2012	C-FL-4C2 B2H1239 1-Nov-2012	C-FL-4C3 B2H1239 1-Nov-2012	C-FL-5 B2G7788 7-Nov-2012	C-FL-5C-A B2H1239 12-Nov-2012	C-FL-5C-B B2H1239 12-Nov-2012
Metals and Inorganics															
Antimony	1.3	0.2	ug/g	0.35	0.89	0.26	0.37	0.66	1.025	0.89	0.64	0.43	0.89	<0.20	<0.20
Arsenic	58 [1]	1	ug/g	11	**65**	8.4	10	42	**72**	32	29	10	**66**	4.7	2.2
Barium	220	0.5	ug/g	24	33	49	41	44	32.5	37	23	32	34	29	19
Beryllium	2.5	0.2	ug/g	0.2	0.32	0.46	0.32	0.36	0.31	0.34	0.31	0.45	0.26	0.3	0.21
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.2	0.45	0.2	0.34	0.39	0.28	0.24	0.15	0.14	0.54	0.11	0.075
Cadmium	1.2	0.1	ug/g	0.11	0.2	0.1	0.13	0.17	0.17	0.14	0.12	0.18	0.18	<0.10	<0.10
Chromium	70	1	ug/g	8.4	11	13	12	11	11.5	11	11	11	9.1	10	8.5
Cobalt	21	0.1	ug/g	2.4	3.4	4.6	4.1	3.7	3.75	3.8	3.6	4.6	2.9	3.8	3.3
Copper	92	0.5	ug/g	8.2	35	19	10	28	37	18	13	13	41	12	9.2
Lead	460 [1]	1	ug/g	34	200	20	28	110	215	67	69	24	200	13	5.2
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	4.1	5.5	8.7	7.1	6.3	6.7	6.4	5.2	6.7	5.6	6.5	4.7
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	<0.050	0.071	0.074	0.057	0.076	0.0785	0.061	0.05	0.053	0.071	0.068	<0.050
Vanadium	86	5	ug/g	21	24	25	23	21	25	22	22	22	18	24	20
Zinc	290	5	ug/g	16	28	27	26	31	25.5	27	20	28	32	19	14
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.24	0.41	0.4	0.27	0.47	0.44	0.31	0.37	0.43	0.31	0.34	0.32

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100	Exceeds Applicable Soil Standard

Table 5: Area C - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	C-FL-5C-C AVERAGE B2H1239 12-Nov-2012	C-FL-6 B2G7788 7-Nov-2012
Metals and Inorganics					
Antimony	1.3	0.2	ug/g	<0.20	<0.20
Arsenic	58 [1]	1	ug/g	2.95	4.2
Barium	220	0.5	ug/g	26.5	23
Beryllium	2.5	0.2	ug/g	0.34	0.26
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.1295	0.16
Cadmium	1.2	0.1	ug/g	<0.10	<0.10
Chromium	70	1	ug/g	10.45	9.1
Cobalt	21	0.1	ug/g	3.65	3.4
Copper	92	0.5	ug/g	16.2	12
Lead	460 [1]	1	ug/g	7.85	12
Molybdenum	2	0.5	ug/g	<0.50	<0.50
Nickel	82	0.5	ug/g	6.15	5.2
Selenium	1.5	0.5	ug/g	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20
Thallium	1	0.05	ug/g	0.054	<0.050
Vanadium	86	5	ug/g	23.5	20
Zinc	290	5	ug/g	20	19
Boron (Total)	36	5	ug/g	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.365	0.26

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100	Exceeds Applicable Soil Standard

Table 6: Area D - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	D-W-1 B2G8900 29-Oct-2012	D-W-2 B2G8900 29-Oct-2012	D-W-3 B2G8900 29-Oct-2012	D-W-4 B2G8900 29-Oct-2012	D-W-5 B2G8900 29-Oct-2012	D-W-6 AVERAGE B2G8900 29-Oct-2012	D-W-7 B2G8900 29-Oct-2012	D-W-8 B2G8900 29-Oct-2012	D-FL-1 B2G8900 29-Oct-2012	D-FL-1C1 B2H2041 2-Nov-2012	D-FL-1C2 B2H2041 2-Nov-2012
Metals and Inorganics														
Antimony	1.3	0.2	ug/g	<0.20	0.46	<0.20	0.35	0.36	0.31	0.45	0.28	0.71	<0.20	0.23
Arsenic	58 [1]	1	ug/g	12	22	9.8	28	30	22.5	33	24	**84**	3.7	12
Barium	220	0.5	ug/g	30	27	41	40	27	24.5	39	25	17	30	30
Beryllium	2.5	0.2	ug/g	0.25	0.25	0.26	0.24	0.24	0.23	0.3	0.24	0.22	0.31	0.3
Cadmium	1.2	0.1	ug/g	<0.10	0.11	0.14	0.17	<0.10	0.11	0.2	0.14	0.11	<0.10	0.12
Chromium	70	1	ug/g	8.4	8.1	7.8	8.4	7.5	8.2	9.2	7.7	7.7	10	9.2
Cobalt	21	0.1	ug/g	2.4	2.3	2.5	2.8	2.4	2.65	2.9	2.2	2.2	3.1	2.7
Copper	92	0.5	ug/g	14	11	8	11	13	17	19	22	33	3.6	7.8
Lead	460 [1]	1	ug/g	38	57	29	100	97	72	100	75	270	12	41
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	4.4	4.3	4.1	5.1	4.2	4.65	5.5	4.5	4.3	5.6	5
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	<0.050	<0.050	0.05	<0.050	0.057	<0.050	0.061	<0.050	0.065	<0.050	<0.050
Vanadium	86	5	ug/g	18	18	17	17	16	18.5	20	17	16	22	19
Zinc	290	5	ug/g	18	19	21	160	21	20.5	25	26	19	20	20
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.25	0.27	0.24	0.33	0.26	0.27	0.29	0.24	0.32	0.33	0.3

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100 Exceeds Applicable Soil Standard

Table 6: Area D - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	D-FL-1C3 B2H2041 2-Nov-2012	D-FL-2 B2G8900 29-Oct-2012	D-FL-3 B2G8900 29-Oct-2012	D-FL-4 B2G8900 29-Oct-2012	D-FL-5 B2G8900 29-Oct-2012
Metals and Inorganics								
Antimony	1.3	0.2	ug/g	0.27	0.22	0.68	0.25	<0.20
Arsenic	58 [1]	1	ug/g	14	7.5	57	18	5.7
Barium	220	0.5	ug/g	34	29	35	30	30
Beryllium	2.5	0.2	ug/g	0.29	0.29	0.26	<0.20	0.22
Cadmium	1.2	0.1	ug/g	0.11	<0.10	0.18	0.13	<0.10
Chromium	70	1	ug/g	9.3	9.3	9	6.8	8.5
Cobalt	21	0.1	ug/g	2.8	2.5	2.5	2.3	2.6
Copper	92	0.5	ug/g	7.9	9.6	21	20	7.8
Lead	460 [1]	1	ug/g	37	18	160	59	16
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	5.1	4.8	4.8	4.2	4.4
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	<0.050	<0.050	0.063	<0.050	<0.050
Vanadium	86	5	ug/g	20	22	19	15	20
Zinc	290	5	ug/g	20	19	46	25	19
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.25	0.3	0.3	0.22	0.27

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100 Exceeds Applicable Soil Standard

Table 7: Area E - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	E-W-1 B2G6829 25-Oct-2012	E-W-2 AVERAGE B2G6829 25-Oct-2012	E-W-3 B2G6829 25-Oct-2012	E-FL-1 B2G6829 25-Oct-2012	E-FL-2 B2G7806 26-Oct-2012	E-FL-3 B2G7806 26-Oct-2012
Metals and Inorganics									
Antimony	1.3	0.2	ug/g	0.65	0.29	0.57	<0.20	0.46	0.49
Arsenic	58 [1]	1	ug/g	40	24	54	2.8	31	35
Barium	220	0.5	ug/g	52	32.5	47	37	50	43
Beryllium	2.5	0.2	ug/g	0.38	0.29	0.36	0.31	0.37	0.34
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.49	0.365	0.74	0.15	0.32	0.46
Cadmium	1.2	0.1	ug/g	0.19	0.13	0.17	<0.10	0.15	0.16
Chromium	70	1	ug/g	13	9.95	13	11	14	12
Cobalt	21	0.1	ug/g	4.8	3.7	4.8	4.1	5.1	4.3
Copper	92	0.5	ug/g	24	12.5	22	6	17	17
Lead	460 [1]	1	ug/g	120	78	150	10	100	110
Molybdenum	2	0.5	ug/g	<0.50	0.55	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	7.9	6.1	7.5	6.6	8.4	7.4
Selenium	1.5	0.5	ug/g	<0.50	<0.50	0.63	0.52	0.55	0.65
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	0.096	0.07	0.087	0.054	0.081	0.076
Vanadium	86	5	ug/g	26	22	22	20	27	23
Zinc	290	5	ug/g	34	28.5	34	25	34	35
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.42	0.28	0.37	0.25	0.41	0.35

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100	Exceeds Applicable Soil Standard

Table 8: Area F - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	F-W-1 B2H3148 5-Nov-2012	F-W-2 B2H3148 5-Nov-2012	F-FL-1 B2H3148 5-Nov-2012	F-FL-2 B2H3148 5-Nov-2012
Metals and Inorganics							
Antimony	1.3	0.2	ug/g	0.59	0.56	<0.20	0.45
Arsenic	58 [1]	1	ug/g	51	44	7.2	40
Barium	220	0.5	ug/g	54	54	44	49
Beryllium	2.5	0.2	ug/g	0.42	0.4	0.32	0.38
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.51	0.66	0.25	**<5.0**
Cadmium	1.2	0.1	ug/g	0.27	0.22	<0.10	0.23
Chromium	70	1	ug/g	15	14	12	13
Cobalt	21	0.1	ug/g	4.9	4.8	4.1	4.4
Copper	92	0.5	ug/g	27	24	9	22
Lead	460 [1]	1	ug/g	150	130	18	120
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	8.1	7.8	7.7	7.7
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	0.092	0.078	0.059	0.073
Vanadium	86	5	ug/g	26	26	22	24
Zinc	290	5	ug/g	33	30	19	27
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.44	0.43	0.31	0.4

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100 Exceeds Applicable Soil Standard

Table 9: Summary of Analytical Results in Soil
Organochloride Pesticides and PCBs
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	A-W-1P B2G6842 24-Oct-12	A-W-2P B2G6842 24-Oct-12	A-FL-1P B2G6842 24-Oct-12	A-FL-2P B2G7803 26-Oct-12	B-W-1P B2G6821 25-Oct-12	B-W-2P B2G6821 25-Oct-12	B-FL-1P B2G6821 25-Oct-12	B-FL-2P AVERAGE B2G7804 26-Oct-12	C-W-1P B2G7788 26-Oct-12	C-W-2P B2G7788 26-Oct-12	C-FL-1P B2G7788 26-Oct-12	C-FL-2P B2H4849 07-Nov-12
Organochlorine Pesticides & PCBs															
Aldrin	0.05	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chlordane (alpha)	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chlordane (gamma)	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chlordane (total)	0.05	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
o,p DDD	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
p,p-DDD	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.005
DDD (total)	0.026 [1]	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.005
o,p DDE	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
p,p-DDE	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	0.004	0.002	0.004	<0.0020	<0.0020	0.11	0.12	0.1	0.9
DDE (total)	0.48 [1]	0.002	ug/g	<0.0020	<0.0020	<0.0020	0.004	0.002	0.004	<0.0020	<0.0020	0.11	0.12	0.1	0.9
op-DDT	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.005
pp-DDT	NV	0.002	ug/g	<0.0020	<0.0020	0.002	<0.0020	0.002	<0.0020	<0.0020	<0.0020	0.011	0.024	0.016	0.14
DDT (total)	1.4	0.002	ug/g	<0.0020	<0.0020	0.002	<0.0020	0.002	<0.0020	<0.0020	<0.0020	0.011	0.024	0.016	0.15
Dieldrin	0.05	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Endosulphan I	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Endosulphan II	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Total Endosulphan	0.04	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Endrin	0.04	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Hepatchlor	0.05	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Hepatchlor Epoxide	0.05	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Hexachlorobenzene	0.01	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Hexachlorobutadiene	0.01	0.005	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Hexachloroethane	0.01	0.005	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Lindane	0.01	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Methoxychlor	0.05	0.005	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Total PCB	0.3	0.015	ug/g	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 3: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100 Exceeds Applicable Soil Standard

Table 9: Summary of Analytical Results in Soil
Organochloride Pesticides and PCBs
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	C-FL-2PA B2G7788 14-Nov-12	C-FL-2PB B2G7788 14-Nov-12	C-FL-2PC B2G7788 14-Nov-12	D-W-1P B2G8900 29-Oct-12	D-W-2P B2G8900 29-Oct-12	D-FL-2P B2G8900 29-Oct-12	D-FL-1P AVERAGE B2G8900 29-Oct-12	E-W-1P B2G6829 25-Oct-12	E-FL-IP B2G7806 26-Oct-12	F-W-1P B2H3148 05-Nov-12
Organochlorine Pesticides & PCBs													
Aldrin	0.05	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Chlordane (alpha)	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Chlordane (gamma)	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Chlordane (total)	0.05	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
o,p DDD	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
p,p-DDD	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
DDD (total)	0.026 [1]	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
o,p DDE	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
p,p-DDE	NV	0.002	ug/g	0.007	0.002	0.003	0.04	0.21	<0.0020	-	<0.0020	<0.0030	<0.0030
DDE (total)	0.48 [1]	0.002	ug/g	0.007	0.002	0.003	0.04	0.21	<0.0020	-	<0.0020	<0.0030	<0.0030
op-DDT	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	0.003	0.004	<0.0020	-	<0.0020	<0.0030	<0.0030
pp-DDT	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	0.018	0.07	<0.0020	-	<0.0020	<0.0030	<0.0030
DDT (total)	1.4	0.002	ug/g	<0.0020	<0.0020	<0.0020	0.021	0.07	<0.0020	-	<0.0020	<0.0030	<0.0030
Dieldrin	0.05	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Endosulphan I	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Endosulphan II	NV	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Total Endosulphan	0.04	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Endrin	0.04	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Hepatchlor	0.05	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Hepatchlor Epoxide	0.05	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Hexachlorobenzene	0.01	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Hexachlorobutadiene	0.01	0.005	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-	<0.0050	<0.0075	<0.0075
Hexachloroethane	0.01	0.005	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-	<0.0050	<0.0075	<0.0075
Lindane	0.01	0.002	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0030	<0.0030
Methoxychlor	0.05	0.005	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-	<0.0050	<0.0075	<0.0075
Total PCB	0.3	0.015	ug/g	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	-	<0.015	<0.023	<0.023

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 3: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100 Exceeds Applicable Soil Standard

Table 10: Area E - Summary of Analytical Results in Soil
Metals and Inorganics
Summerhill Woods, Newmarket, ON

Sample ID Maxxam Job # Sampling Date	Applicable Soil Standard	Reporting Limit	Units	GS-1 B352029 9-Apr-2013	GS-2 B352029 9-Apr-2013	GS-3 B2G6829 9-Apr-2013	GS-4 B2G6829 9-Apr-2013	GS-5 AVERAGE B2G7806 9-Apr-2013	GS-6 B2G7806 9-Apr-2013
Metals and Inorganics									
Antimony	1.3	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic	58 [1]	1	ug/g	2.8	2.8	2.3	2.8	2.6	2.5
Barium	220	0.5	ug/g	80	82	57	72	63	61
Beryllium	2.5	0.2	ug/g	0.59	0.6	0.47	0.57	0.53	0.47
Boron (Hot Water Soluble)	1.5 [1]	0.05	ug/g	0.16	0.2	0.13	0.17	0.23	0.15
Cadmium	1.2	0.1	ug/g	0.22	0.25	0.16	0.21	0.22	0.18
Chromium	70	1	ug/g	17	17	14	16	15	15
Chromium VI	0.66	-	ug/g	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cobalt	21	0.1	ug/g	7.3	7.2	6.3	7.7	7.0	6.7
Copper	92	0.5	ug/g	13	14	12	12	12	11
Lead	460 [1]	1	ug/g	13	14	10	12	13	12
Mercury	0.27	-	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Molybdenum	2	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	0.5	ug/g	14	15	13	14	13	13
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.05	ug/g	0.11	0.1	0.11	0.12	0.096	0.095
Vanadium	86	5	ug/g	25	25	22	25	24	23
Zinc	290	5	ug/g	45	46	36	43	40	39
pH (pH Units)	5 to 9	-	pH	7.25	7.28	7.46	7.49	7.4	7.52
Conductivity (ms/cm)	0.47	-	mS/cm	0.16	0.18	0.16	0.18	0.18	0.17
Sodium Absorption Ratio	1	-	N/A	0.25	0.24	0.26	0.24	0.24	0.32
Cyanide, Free	0.051	-	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Boron (Total)	36	5	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	2.5	0.05	ug/g	0.5	0.44	0.41	0.44	0.43	0.39

Notes:

[1]: Indicates Property Specific Standard established through risk assessment

AVERAGE: Indicates the calculated average of the sample and it's duplicate for comparison to the standard.

Applicable Soil Standard: MOE Table 1: Ontario Ministry of the Environment, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " April 2011. Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Residential, Parkland, Institutional (RPI) Property Use with coarse textured soils unless noted.

100	Exceeds Applicable Soil Standard

Table 11: Summary of Relative Percent Differences (RPDs) in Soil
Summerhill Woods, Newmarket, ON

Parameter	Reporting Limits	Sample[(1)] A-5C2B	Duplicate A-5C2B-D	% Difference	Sample[(1)] A-5C3E	Duplicate A-5C3G	% Difference	Sample[(1)] A-FL-4	Duplicate A-FL-FD	% Difference	Sample[(1)] B-W-6	Duplicate B-W-FD	% Difference	Sample[(1)] C-W-4
Metals and Inorganics														
Antimony	0.2	0.64	0.56	-	0.31	0.27	-	0.5	0.52	-	0.55	0.57	-	0.44
Arsenic	1	55	56	-1.8%	21	19	10.0%	36	37	-2.7%	47	50	-6.2%	18
Barium	0.5	45	46	-2.2%	53	52	1.9%	41	39	5.0%	47	48	-2.1%	30
Beryllium	0.2	0.37	0.36	-	0.42	0.42	-	0.32	0.35	-	0.4	0.37	-	0.28
Boron (Hot Water Soluble)	0.05	0.72	0.77	-6.7%	0.9	0.67	29.3%	0.65	0.51	24.1%	0.64	0.63	1.6%	0.38
Cadmium	0.1	0.19	0.18	-	0.22	0.14	-	0.2	0.21	-	0.22	0.22	-	0.13
Chromium	1	12	12	0.0%	14	13	7.4%	12	12	0.0%	13	13	0.0%	9.6
Cobalt	0.1	4.5	4.4	2.2%	5.2	5.1	1.9%	4.4	4.3	2.3%	4.4	4.6	-4.4%	3
Copper	0.5	32	38	-17.1%	27	23	16.0%	20	21	-4.9%	29	31	-6.7%	15
Lead	1	190	180	5.4%	65	55	16.7%	110	120	-8.7%	170	180	-5.7%	59
Molybdenum	0.5	<0.50	<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-	<0.50
Nickel	0.5	8.7	8.7	0.0%	9.6	9.3	3.2%	7.2	7.7	-6.7%	7.5	7.7	-2.6%	4.9
Selenium	0.5	<0.50	<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-	0.61	0.9	-	<0.50
Silver	0.2	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-	<0.20
Thallium	0.05	0.099	0.09	-	0.094	0.086	-	0.076	0.08	-	0.092	0.095	-	0.051
Vanadium	5	22	22	0.0%	24	23	4.3%	25	24	4.1%	21	22	-4.7%	23
Zinc	5	34	38	-11.1%	38	36	5.4%	33	34	-3.0%	35	35	0.0%	20
Boron (Total)	5	<5.0	<5.0	-	<5.0	<5.0	-	<5.0	<5.0	-	<5.0	<5.0	-	<5.0
Uranium	0.05	0.36	0.32	11.8%	0.32	0.32	0.0%	0.38	0.4	-5.1%	0.36	0.37	-2.7%	0.34

Notes:

(1)	All results reported in micrograms per gram (µg/g) unless otherwise noted.
<	Parameter not detected above value specified
% Difference	Relative Percent Difference = |(X-Y)/Average(X,Y)| x 100% where X is the sample and Y is the duplicate
-	RPD could not be calculated.
40.00%	

Table 11: Summary of Relative Percent Differences (RPDs) in Soil
Summerhill Woods, Newmarket, ON

Duplicate	% Difference	Sample[(1)]	Duplicate	% Difference	Sample[(1)]	Duplicate	% Difference	Sample[(1)]	Duplicate	% Difference	Sample[(1)]	Duplicate	% Difference
C-W-FD		C-FL-4	C-FL-FD		C-FL-5C-C	C-FL-5C-FD		D-W-6	D-W-FD		E-W-2	E-W-FD	
0.52	-	0.95	1.1	-14.6%	<0.20	<0.20	-	0.31	0.31	-	0.3	0.28	-
18	0.0%	67	77	-13.9%	2.3	3.6	-44.1%	25	20	22.2%	26	22	16.7%
29	3.4%	31	34	-9.2%	28	25	11.3%	24	25	-4.1%	32	33	-3.1%
0.28	-	0.3	0.32	-	0.37	0.31	-	0.23	0.23	-	0.28	0.3	-
0.37	2.7%	0.28	0.28	0.0%	0.17	0.089	-	0.6	0.63	-4.9%	0.48	0.25	63.0%
0.13	-	0.16	0.18	-	<0.10	<0.10	-	0.11	0.11	-	<0.1	0.13	-
9.2	4.3%	11	12	-8.7%	11	9.9	10.5%	8	8.4	-4.9%	10	9.9	1.0%
2.9	3.4%	3.7	3.8	-2.7%	3.7	3.6	2.7%	2.6	2.7	-3.8%	3.6	3.8	-5.4%
15	0.0%	35	39	-10.8%	24	8.4	96.3%	16	18	-11.8%	13	12	8.0%
58	1.7%	200	230	-14.0%	6.6	9.1	-31.8%	80	64	22.2%	90	66	30.8%
<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-	0.54	0.56	-
4.9	0.0%	6.6	6.8	-3.0%	6.4	5.9	8.1%	4.7	4.6	2.2%	6.1	6.1	0.0%
<0.50	-	0.51	<0.5	-	<0.50	<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-
<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
0.054	-	0.076	0.081	-	0.054	<0.05	-	<0.050	<0.050	-	0.073	0.067	-
22	4.4%	24	26	-8.0%	25	22	12.8%	18	19	-5.4%	22	22	0.0%
21	-4.9%	25	26	-3.9%	24	16	40.0%	21	20	4.9%	29	28	3.5%
<5.0	-	<5.0	<5.0	-	<5.0	<5.0	-	<5.0	<5.0	-	<5.0	<5.0	-
0.32	6.1%	0.42	0.46	-9.1%	0.35	0.38	-8.2%	0.26	0.28	-7.4%	0.28	0.28	0.0%

APPENDIX A – GENERAL

A-1
MAPPING

Aerial Photograph - 1927

Aerial
Photograph
1946

Aerial Photograph - 1955

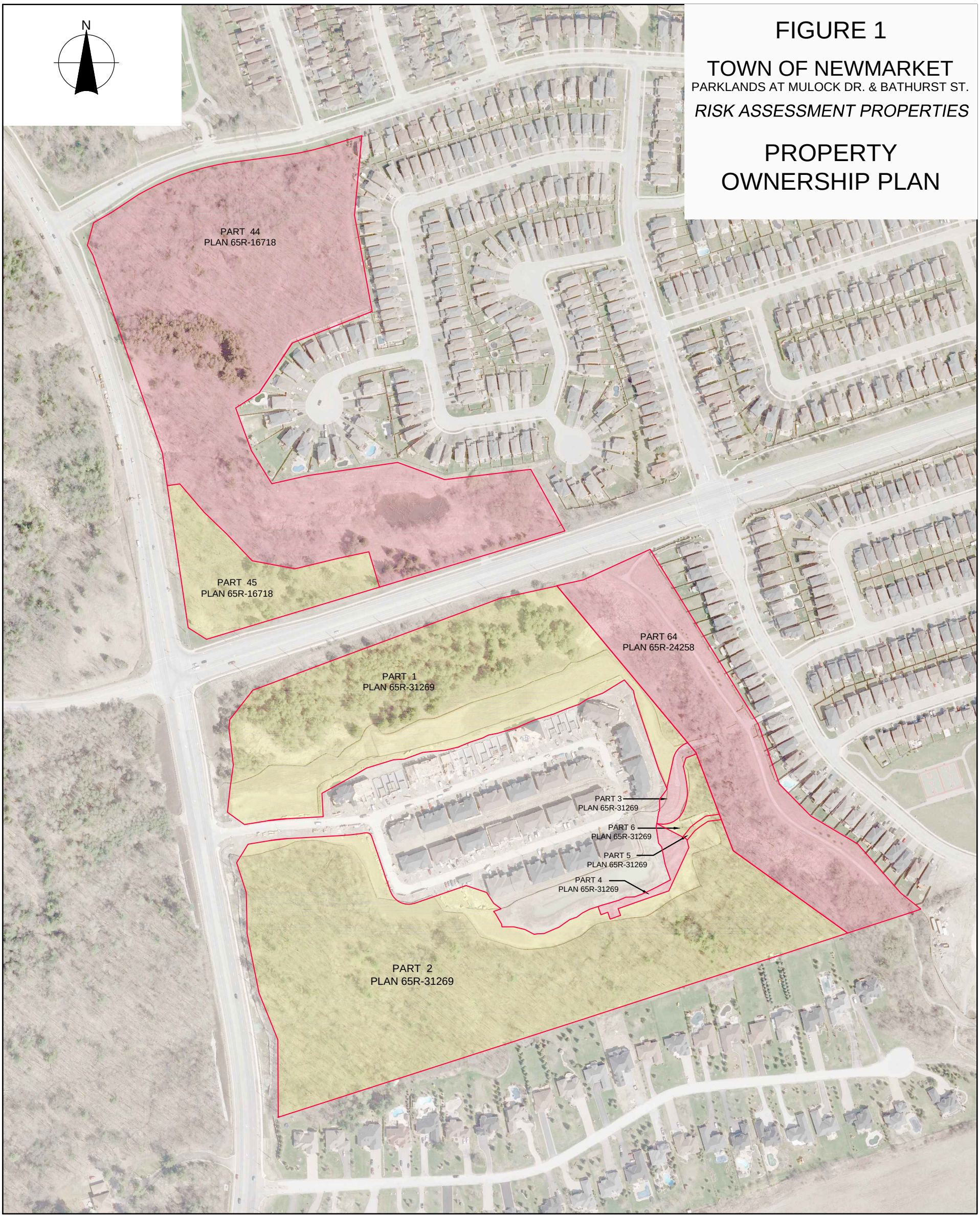
FIGURE 1

TOWN OF NEWMARKET

PARKLANDS AT MULOCK DR. & BATHURST ST.

RISK ASSESSMENT PROPERTIES

PROPERTY OWNERSHIP PLAN



LEGEND

- SITE BOUNDARIES
- LANDS OWNED BY CORPORATION OF THE TOWN OF NEWMARKET
- LANDS OWNED BY CRITERION DEVELOPMENT CORPORATION

Image Source:
Background 2009 colour air photos obtained from First Base Solutions Inc.

Scale 1:3.500
February 2012
Project Number: D24650

Projection: UTM Zone 17
Datum: NAD83

Prepared by: C. Sheppard

Verified by: J. Walls

BURNSIDE

D24650 SURVEY PLAN input from legal and reference plans.dwg

Plot Time: Feb 22, 2012-3:49pm

FIGURE A
TOWN OF NEWMARKET
PARKLANDS AT MULOCK DR. & BATHURST ST.
PHASE 2 - E.S.A. - JANUARY 2010

AREAS REQUIRING RISK MANAGEMENT / REMEDIAL ACTION

LEGEND

- APPROXIMATE PROPERTY OUTLINES
- APPROXIMATE BUFFER AREA AROUND RESIDENTIAL DEVELOPMENT
- MAXIMUM EXTENT OF FORMER ORCHARDS
- SED-20 1.8 (Ps–261) — SEDIMENT SAMPLE LOCATION WITH ARSENIC & LEAD CONCENTRATION IN SEDIMENT (µg/g) By Burnside August 2009
- SS-5 1.8 (Ps–261) — SOIL SAMPLE LOCATION WITH ARSENIC & LEAD CONCENTRATION IN SOIL (µg/g) By Burnside August 2009
- B-20 1.8 (Ps–261) — SOIL SAMPLE LOCATION SUBMITTED FOR BIOAVAILABILITY ANALYSIS WITH ARSENIC & LEAD CONCENTRATION IN SOIL (µg/g) By Burnside August 2009
- SW-4 1.8 (Ps–261) — SURFACE WATER SAMPLE LOCATION WITH ARSENIC & LEAD CONCENTRATION IN WATER (µg/L) By Burnside August 2009
- MW-A — MONITORING WELL LOCATION WITH ARSENIC, LEAD & BORON CONCENTRATIONS By Burnside October & November 2009

	DEPTH	As	Pb	B
IN SOIL (µg/g) -	0.8m	3	10.2	<0.1
IN GROUNDWATER - (µg/L)	MW–B	0.91	11.3	<0.05

- MW-1 33.0 — MULTIPLE SOIL SAMPLE LOCATION & AVERAGE ARSENIC CONCENTRATION IN SOIL (µg/g) By Burnside December 22 & 23, 2008
- SS-1 1.8 — SOIL SAMPLE LOCATION & ARSENIC CONCENTRATION IN SOIL (µg/g) By Burnside August 5 & 6, 2008
- 2 — SOIL SAMPLE & ARSENIC CONCENTRATION (µg/g) By MMM Group Ltd., July - Sept. 2007
- 3 — SEDIMENT SAMPLE & ARSENIC CONCENTRATION (µg/g) By MMM Group Ltd., September 2007
- 6 — SOIL SAMPLE & ARSENIC CONCENTRATION (µg/g) By MMM Group Ltd., September 2007, March 2008
- 3 — TOPSOIL & SUBSOIL SAMPLE & ARSENIC CONCENTRATION (µg/g) By MMM Group Ltd. July 2008
- 2 — VERIFICATION SOIL SAMPLE & ARSENIC CONCENTRATION (µg/g) By MMM Group Ltd, November 2007 & June 2008
- 1 — SOIL SAMPLE, REG 153 METALS & ARSENIC CONCENTRATION (µg/g) By MMM Group Ltd., July 2008
- 3 — VERIFICATION TOPSOIL SAMPLE & ARSENIC CONCENTRATION (µg/g) By MMM Group Ltd, July 2008
- 3 — GROUNDWATER SAMPLE LOCATION & ARSENIC CONCENTRATION (µg/L) By MMM Group Ltd., Dec. 2007
- 3 — SURFACE WATER SAMPLE LOCATION & ARSENIC CONCENTRATION (µg/L) By MMM Group Ltd., January 2008
- 41.8 — ARSENIC CONCENTRATION IN SOIL ABOVE THE MOE TABLE 1 STANDARD (µg/g)
- 41.8 — ARSENIC CONCENTRATION IN SEDIMENT ABOVE THE MOE TABLE 1 STANDARD (µg/g)
- (Ps–44.8) — LEAD CONCENTRATION IN SOIL ABOVE THE MOE TABLE 1 STANDARD (µg/g)
- (Ps–44.8) — LEAD CONCENTRATION IN SEDIMENT ABOVE THE MOE TABLE 1 STANDARD (µg/g)
- 1.5 — OC PESTICIDE CONCENTRATION IN SEDIMENT ABOVE MOE TABLE 1 STANDARD (µg/g)

TABLE 1 STANDARDS	(µg/g)		(µg/L)
	SOIL	SEDIMENT	GROUNDWATER
As	17	6	25
Pb	120	31	1
DDD	NV	0.008	0.025
DDE	NV	0.005	0.01
DDT	1.4	0.007	0.05
B	NV	NV	200

AREAS REQUIRING RISK MANAGEMENT / REMEDIAL ACTION INTERPRETED TO HAVE ARSENIC CONCENTRATIONS IN THE TOPSOIL (<0.3m depth) IN EXCESS OF 60(µg/g)

NOTES:

- SAMPLES COLLECTED FROM PRIVATELY OWNED RESIDENTIAL LAND ARE NOT SHOWN WITH THE EXCEPTION OF THE VERIFICATION SAMPLES FROM SUMMERHILL WOODS.
- SAMPLES COLLECTED FROM THE BUFFER LANDS AROUND SUMMERHILL WOODS PRIOR TO REMEDIATION ARE NOT SHOWN. ONLY THE POST REMEDIATION (CURRENT CONDITIONS) RESULTS ARE SHOWN.

Air Photo Source:
Background colour air photo circa 2007-2008 obtained from Google Earth Pro & from First Base Solutions Inc.

0 10 20 30 40 50 60 70 80 90 100
Metres

Scale 1:1,500
January 2010
Project Number: D24650

Projection: UTM Zone 17
Datum: NAD83

Prepared by: C. Sheppard
Verified by: J. Walls

BURNSIDE

D24650 PARKLANDS Ph2 ESA JAN 2010 REMEDIAL ACTION AREAS.dwg

A-2
PERMITS

Lake Simcoe Region Conservation Authority

120 Bayview Parkway, Box 282, Newmarket, Ont. L3Y 4X1
Telephone: (905) 895-1281 Website: www.lsrca.on.ca
Fax: (905) 853-5881 Email: info@lsrca.on.ca

PERMIT No. NP.2012.027 **Date:** Wednesday, September 12, 2012

IN ACCORDANCE WITH ONTARIO REGULATION 179/06.

Permission has been granted to:

Owner: TOWN OF NEWMARKET
395 MULOCK DRIVE
NEWMARKET, ON L3Y 4X7

Applicant: MMM GROUP LIMITED
100 COMMERCE VALLEY DRIVE WEST
THORNHILL, ON L3T 0A1

Location: LOT 1 & 90, CONCESSION 001 W.Y.S., TOWN OF NEWMARKET
SUMMERHILL WOODS, NEWMARKET

For the: removal of arsenic impacted topsoils to be replaced with non-impacted topsoils and restoration of the work areas as shown on plans submitted and marked "approved".

on the above property during the period of **Wednesday, September 12, 2012** to **Thursday, September 12, 2013**

subject to the following conditions:

a) All development subject to provincial, federal and municipal statutes, regulations and by-laws. (including Letter of Advice: LOA.2012.105 dated September 12, 2012).

b) This permit does not confer upon you any right to occupy, develop or flood lands owned by other persons or agencies.

c) The applicant must maintain and comply with the local drainage requirements of the municipality.

d) That all areas of exposed soil be stabilized immediately following construction.

e) That sediment and erosion controls as shown on the attached plan be installed prior to the commencement of any works onsite. Silt controls are to be inspected after every rainfall event and maintained until all exposed areas have been stabilized in order to prevent silt from leaving the site or entering a watercourse or water body.

f) That no grading or placing of fill occur on the lot except what is required for the proposed works as shown on the attached site plan.

g) That all plantings consist of native, non-invasive, non-cultivar vegetation.

h) That the LSRCA be contacted prior to the start of the works and upon completion of the works.

i) That the fill to be removed off site shall not be placed in an area subject to Ontario Regulation 179/06.

***NOTE** **The approved plans submitted with the application for this permit are hereby incorporated into and constitute part of this permit. Any construction, placement of fill or interference with a watercourse or body of water otherwise than in accordance with such plans, constitutes a breach of this permit which may then be revoked at the option of the Authority. In addition, any person responsible for such activity is liable to prosecution.**

- ✔ Owner
- ✔ Building Dept
- ✔ File NP.2012.027
- ✔ Applicant
- DFO, Peterborough
- ✔ MNR, Aurora
- Other -

Jennifer Hayward
Environmental Planner

Lake Simcoe Region
conservation authority

COPY

A Watershed for Life

September 12, 2012

File No.: LOA.2012.105
IMS No.: RPMA7100 & RDFL1524C1

Corporation of the Town of Newmarket
395 Mulock Drive
Newmarket, ON L3Y 4X7

To Whom It May Concern:

Re: Proposed Arsenic Remediation at the Criterion Development
Lots 1 & 90, Concession 1 WYS, Summerhill Woods
Town of Newmarket, Regional Municipality of York

The Lake Simcoe Region Conservation Authority received your plans for the above mentioned project on September 10, 2012. As detailed in our Level III fish habitat agreement with the Department of Fisheries and Oceans (DFO), the Lake Simcoe Region Conservation Authority is responsible to evaluate proposed works as to their impact on fish habitat.

This letter is to advise you that we have reviewed the plans. It is my understanding from the information provided; the revisions can be summarized as the following:

- Remove Arsenic Contamination and Rehabilitate a Watercourse.

I have concluded that your proposal will not result in the Harmful Alteration, Disruption or Destruction (HADD) of fish habitat. The harmful alteration, disruption or destruction of fish habitat is prohibited unless authorized by the Department of Fisheries and Oceans (DFO) pursuant to subsection 35(1) of the *Fisheries Act*. In keeping with DFO's *"Policy for the Management of Fish Habitat"*, no such authorizations are issued unless acceptable measures for the habitat loss are developed and implemented by the proponent.

Often, physical impacts on fish habitat can for the most part be mitigated by specific modification or actions incorporated into the project design and construction procedures.

In addition to the measures set out in the project proposal, the following mitigative measures, if incorporated into the project, are intended to alleviate any potentially harmful impacts to fish and fish habitat;

120 Bayview Parkway, Box 282
Newmarket, Ontario L3Y 4X1
Tel: 905.895.1281 1.800.465.0437
Fax: 905.853.5881
Web: www.LSRCA.on.ca
E-Mail: Info@LSRCA.on.ca

- Vehicle and equipment re-fuelling and maintenance should be conducted away from the water.
- All material and equipment used for the purpose of site preparation and project completion should be operated and stored in a manner that prevents any deleterious substance (e.g. petroleum products, silt, etc.) from entering the water;
- Any stockpiled materials should be stored and stabilized away from the water and moved outside of the floodplain.
- Any part of equipment entering the water should be free of fluid leaks and externally cleaned/degreased to prevent any deleterious substance from entering the water.
- Sediment and erosion control measures (silt curtains) shall be implemented prior to the start of works and maintained during the work phase, to prevent entry of sediment into the water.
- All sediment and erosion control devises shall be removed after completion of the works.
- In-water works may not be conducted between October 1st and June 30th of any given year.

If the proposed work is carried out as described in the plans received by the Lake Simcoe Region Conservation Authority on September 10, 2012, it will not be considered as contravening Subsection 35(1) of the *Fisheries Act*, which reads:

"No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat."

Please note that this letter of advice does not release the proponent of the responsibility for obtaining any other permits that may be required under federal, provincial or municipal legislation.

If you have any questions concerning the mitigation measures or should there be any changes to the proposed work, please contact the undersigned at 905-895-1281, ext. 294. Please reference the above file numbers in future correspondence.

Yours truly,

Jeff J. Andersen
Senior Fisheries Biologist

JJA/dt

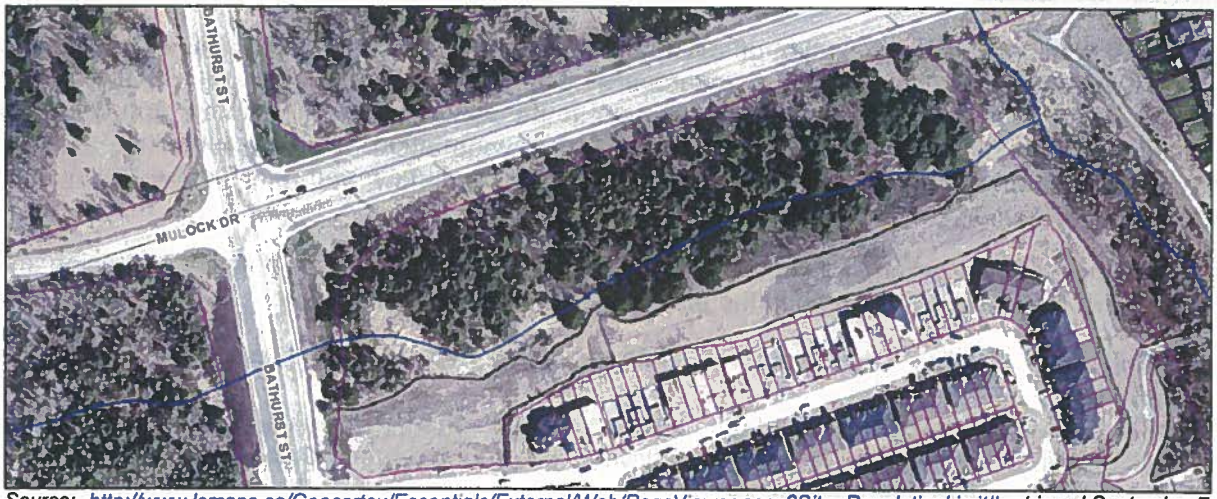
c. Chris Hislop MNR, Aurora
MMM Group Limited

MMM GROUP

MEMO

To:	Carolyn Adams	Date:	September 10, 2012
From:	Mark Cece	Job No.:	10.05015.018.PER
Subject:	Summerhill Woods	CC:	Andrea Ferguson Jones

As requested, a site reconnaissance of the unnamed tributary of Armitage Creek to determine the function of the feature as fish habitat as well as potential impacts associated with the site remediation works. The watercourse reach in question, hereinafter referred to as the "tributary", extends from Bathurst Street to its confluence with Armitage Creek to the east (see below). It is our understanding that the proposed works have the potential to affect the tributary through works adjacent to the watercourse as well as within the watercourse itself.



Source: http://www.lsmaps.ca/Geocortex/Essentials/External/Web/RegsViewer.aspx?Site=RegulationLimit# retrieved September 7, 2012

Existing Condition

A site reconnaissance of the watercourse was examined on August 31, 2012 to document the existing conditions. Generally the watercourse consists of diffuse flow through vegetation with a short section of defined channel through the wooded portion of the riparian habitat. Both remediation Areas A and B are located within areas consisting of diffuse flow through dense vegetation.

Approximate location of Area A through tributary (flagging tape)

Approximate location of Area B through tributary (flagging tape)

There is a defined section between areas A and B that extends approximately 80 m through a more densely wooded area with an approximate bankfull width of 0.3 to 0.6 m and depth of 0.1 to 0.3 m and a substrate dominated by silty/sand and scattered cobble/boulders.

The flow regime of the watercourse appears to be intermittent/ephemeral in nature as the watercourse was observed to be dry with vegetation growth dense through the majority of the feature including areas within the defined section. The tributary is poorly connected to the receiving watercourse through a dense cattail wetland resulting in a low potential for connectivity to direct fish habitat. As a result of this poor connectivity as well as the intermittent/ephemeral flow regime, this reach appears to function as indirect warmwater fish habitat.

Impacts and Mitigation

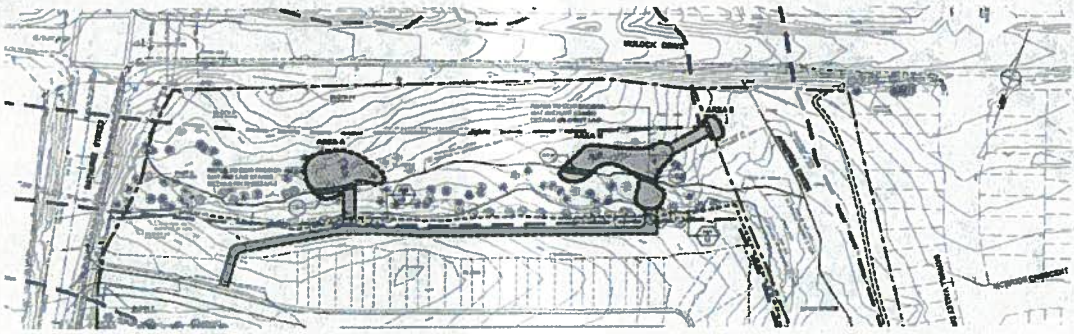
The proposed works includes excavation of soil material within the riparian habitat associated with the tributary as well as excavation within the watercourse itself. The potential impacts associated with these works include the potential transport of sediment to the watercourse, alteration of approximately 80 m of indirect fish habitat as well as the removal of riparian vegetation. These potential impacts can interrupt the downstream transport of nutrients, leaf litter, seasonal flow and result in the introduction of deleterious substances into fish habitat.

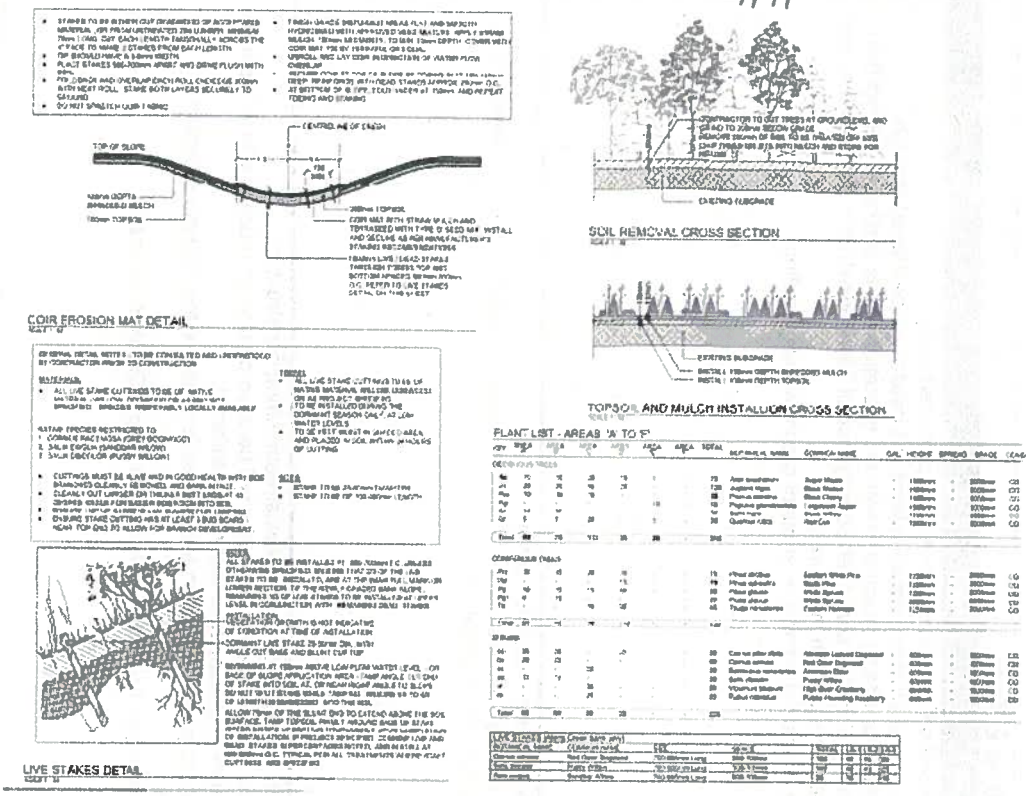
General construction mitigation measures to protect the aquatic environment include erosion and sediment control measures as outlined in the previous submission and including:

- Retention of existing vegetation and stabilization of exposed soils with vegetation where possible;
- Having suitable materials on hand (i.e. pea gravel filled sand bags, pumps, etc.) to create a dry work area in the channel in the event that flows occur during a precipitation event;
- Limiting the duration of soil exposure;
- Limiting the size of disturbed areas by minimizing nonessential clearing and grading;
- Minimizing slope length and gradient of disturbed areas; and
- Storage/stockpiling of soil a minimum of 30 m away from watercourses, drainage features and top of steep slopes.

These measures will limit the transport of sediment to the watercourse due to the proposed construction works.

The restoration of the disturbed areas as outlined in Drawings LA-1 and LA-2 (sections of figures included below) will also recreate the watercourse using coir mats to stabilize the soil as well as reintroduction of herbaceous vegetation through seeding and woody vegetation trough the proposed planting plans.





It is anticipated that these measures will recreate the affected areas and replicate the function of the watercourse as indirect warmwater fish habitat. Furthermore, the proposed works will result in the removal of contaminated soil, thereby minimizing the potential for the downstream transport of this material into direct fish habitat. Please review the attached DFO Risk Management associated with the proposed works. As a result of the function of this watercourse as indirect fish habitat as well as the proposed mitigation measures, it is anticipated that the proposed works will not result in the Harmful Alteration Disruption or Destruction (HADD) of fish habitat thereby resulting in a Letter of Advice (LoA) rather than a Fisheries Act Authorization.

Mark Cece, B.Sc.
Ecology Manager/Senior Fisheries Biologist
Ecology Department

M:\Ecology Group\Jobs\2005\10.05015.018.PER - William Dunn Cres (arsenic)\DRAFT Ecology Fish Memo_Sept 7, 2012.doc

Risk Assessment Worksheet

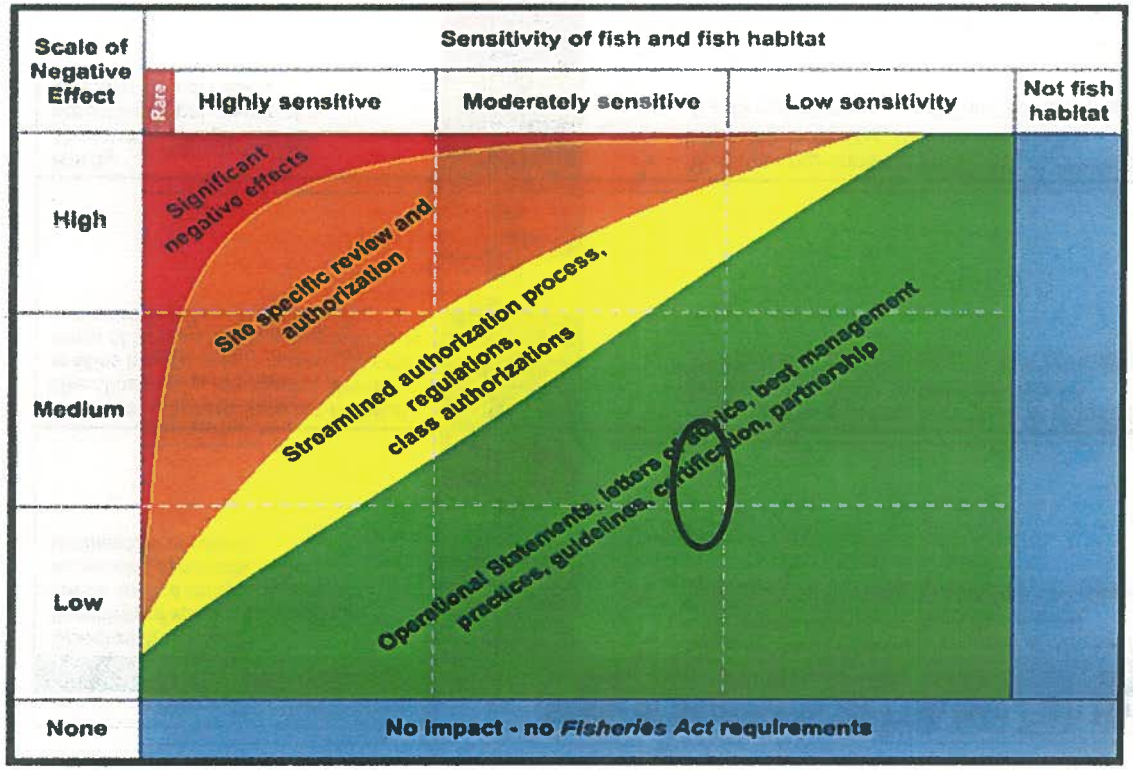
Waterbody: Unnamed Tributary of Armitage Creek

Scale of Negative Effect		
Attribute	**Scale**	**Rationale**
Extent (size) Refers to the direct "footprint" of the development proposal, as well as areas indirectly affected, such as downstream or down-current areas in relation to an ecological unit.	None ☐ Low X Moderate ☐ High ☐	• Site or segment – localized effect associated with the proposed works. • Approximately 80 m watercourse consisting of indirect fish habitat will be altered through excavation. Potential adverse effects associated with the alteration of this section of indirect fish habitat will be minimized through the continued conveyance of flow downstream (if present) as well as the proposed mitigation/restoration measures. • No loss of important or critical fish habitat or areas of groundwater upwelling.
Duration The amount of time that a residual effect will persist.	None ☐ Low ☐ Moderate X High ☐	• Short/Medium term construction (weeks/months). • New riparian vegetation will be planted along the restored sections, medium-term for vegetation to become established (temporary residual effect).
Intensity The expected amount of change from the baseline condition. Intensity is a way of describing the degree of change, such as changes in water temperature, salinity, flow, suspended sediment etc. The timing of works may have a major influence on intensity. Effects such as sediment release occurring during critical spawning periods will have a higher intensity.	None ☐ Low X Moderate ☐ High ☐	• Intermittent flows continue to be conveyed downstream during construction. • Effective sediment and erosion control measures will be used during construction and will remain in place until the riparian vegetation has become established. • Use of appropriate and standard mitigation techniques to minimize the adverse effects of construction activities. • Resiliency of the downstream fish community in in Armitage Creek to withstand change/perturbation.

Scale of Sensitivity for Fish and Fish Habitat

Attribute	Scale	Rationale
Species Sensitivity Sensitivity of species to change in environmental conditions, such as suspended sediments, water, temperature or salinity.	None ☐ Low X Moderate ☐ High ☐	• Watercourse consists principally of diffuse flow through vegetation functioning as warmwater intermittent habitat, indirect fish habitat. • Resiliency of the downstream fish community to withstand change/perturbation.
Species' Dependence on Habitat Use of habitat by fish species. Some species may be able to spawn in a wide range of habitats, while others may have very specific habitat requirements.	None ☐ Low X Moderate ☐ High ☐	• Watercourse consists principally of diffuse flow through vegetation functioning as warmwater intermittent habitat, indirect fish habitat. • Resiliency of the downstream fish community to withstand change/perturbation.
Rarity The relative strength of a fish population or prevalence of a particular type of habitat.	Low X Moderate ☐ High ☐ Rare ☐	• Watercourse consists principally of diffuse flow through vegetation functioning as warmwater intermittent habitat, indirect fish habitat. • Resiliency of the downstream fish community to withstand change/perturbation.
Habitat Resiliency Habitat resiliency refers to the ability of an aquatic ecosystem to recover from changes in environment conditions. The flow and thermal regimes of the system as well as its physical characteristics are important considerations in describing freshwater ecosystems.	None ☐ Low X Moderate ☐ High ☐	• Watercourse consists principally of diffuse flow through vegetation functioning as warmwater intermittent habitat, indirect fish habitat. • Resiliency of the downstream fish community to withstand change/perturbation. • Restoration including replanting of riparian vegetation along the realigned channel will take medium-term for vegetation to become established (temporary residual effect) however; channel will eventually function in similar manner as existing.

Attribute	Scale	Rationale
Risk Management Decision	Low Risk X Moderate Risk ☐ High Risk ☐ Significant Effects ☐	• Watercourse consists principally of diffuse flow through vegetation functioning as warmwater intermittent habitat, indirect fish habitat. • Resiliency of the downstream fish community to withstand change/perturbation. • No loss of important or critical fish habitat or areas of groundwater upwelling. • Use of appropriate sediment and erosion control mitigation measures to minimize the adverse effects of construction activities. • Use of appropriate and standard mitigation techniques to minimize the adverse effects of construction activities. • Maintenance of upstream intermittent flow to downstream reaches during construction (if present).



Categorize risk by plotting a point/circle/oval on the Risk Assessment Matrix.

Use a point, circle or oval depending on uncertainty.

APPROVED
LAKE ... REGION
CO... AUTHORITY
DH
Sept 12/12
7111

Mailing:
17250 Yonge Street,
Box 147
Newmarket, ON L3Y 6Z1

Delivery:
90 Bales Drive East, Sharon

The Regional Municipality of York
TRANSPORTATION SERVICES
Forest Conservation-By-Law

Branch Telephone No.'s:
(905) 895-1200
(905) 764-6345
(705) 437-3921

Fax:(905) 895-3047

PERMIT NO: FOF2012261 Forestry **Client No:** 271

Revision No. 0 **Special Permits**

File Name: Summerhill Woods
Company: Criterion Development Corporation
Address: 3625 Dufferin Street
Suite # Suite 400
Downsview ON M3K1N4

Issue Date: Sep/06/2012
Fee: $250.00
Security: $0.00
Phone No: 416-638-9000

DETAILED OCCUPANCY INFORMATION

Effective Dates: **From:** Aug/30/2012
To: Aug/30/2013

Reference Approvals:

Muncipality: Town of Newmarket

Location: Bathurst Street between William Dunn Crescent and Clearmeadow Blvd.
Tax Roll #1948 040 204 28000 0000,
Plan 65R, Part 45

Description: Remediation of arsenic impacted topsoil in forested area

DETAILED ROAD INFORMATION

On: Y.R 38 - Bathurst Street
From: Davis Drive
To: Old Bathurst Street

Work Zone: Not Applicable
Effective Time: Not Applicable

CONDITIONS OF THIS PERMIT

1 This Permit may be revoked at any time.
2 The Permit and File Number must be referenced when dealing with this office.
3 All permit adjustments must be made through this office. Any unauthorized adjustments or alterations of this document may result in cancellation of this permit.
4 Tree removal is permitted only in respect of those trees located in the "Removal Area" as designated in the attached Schedule "1", and approved by an officer. The tree removal along the most direct path to the removal area shall not exceed four (4) metres in width. The total size of the "Removal Area" shall not exceed one thousand three-hundred (1300) square metres.
5 This permit, or a copy thereof, must be available on site for inspection during the course of the permitted activity.
6 The Area Forester, Colin Macdonald, (905) 895-1200 ext. 5258, colin.macdonald@york.ca shall be notified 48 hours prior to commencing the permitted operation.
7 The limit of tree removal identifed on the attached Schedule "1" shall be delineated in the field and inspected by an officer prior to commencing tree removal operations.

8 An Officer may enter the property to complete an inspection prior to and/or during harvest.

9 This permit expires August 30, 2013, any works must be completed prior to this da the applicant must re-apply to this department.

10 This permit does not operate as a waiver of any approvals required by any other e regulations, including landowner consents. It is the applicant's responsibility to ob approvals.

11 This permit is not transferable, and does not transfer with the property title on a sa disposition of the property.

12 Where raptor (hawk) nests exist in trees, the stick nest tree and adjacent trees (cr must not be removed.

13 No harvesting shall occur between April 15 and July 15, 2013.

14 The application shall complete the restoration/compensation planting identified on Schedule 2 (Sheets LA1 and LA2) by June 1, 2013

The permitted occupancy is approved subject to the conditions

Ian D Buchanan

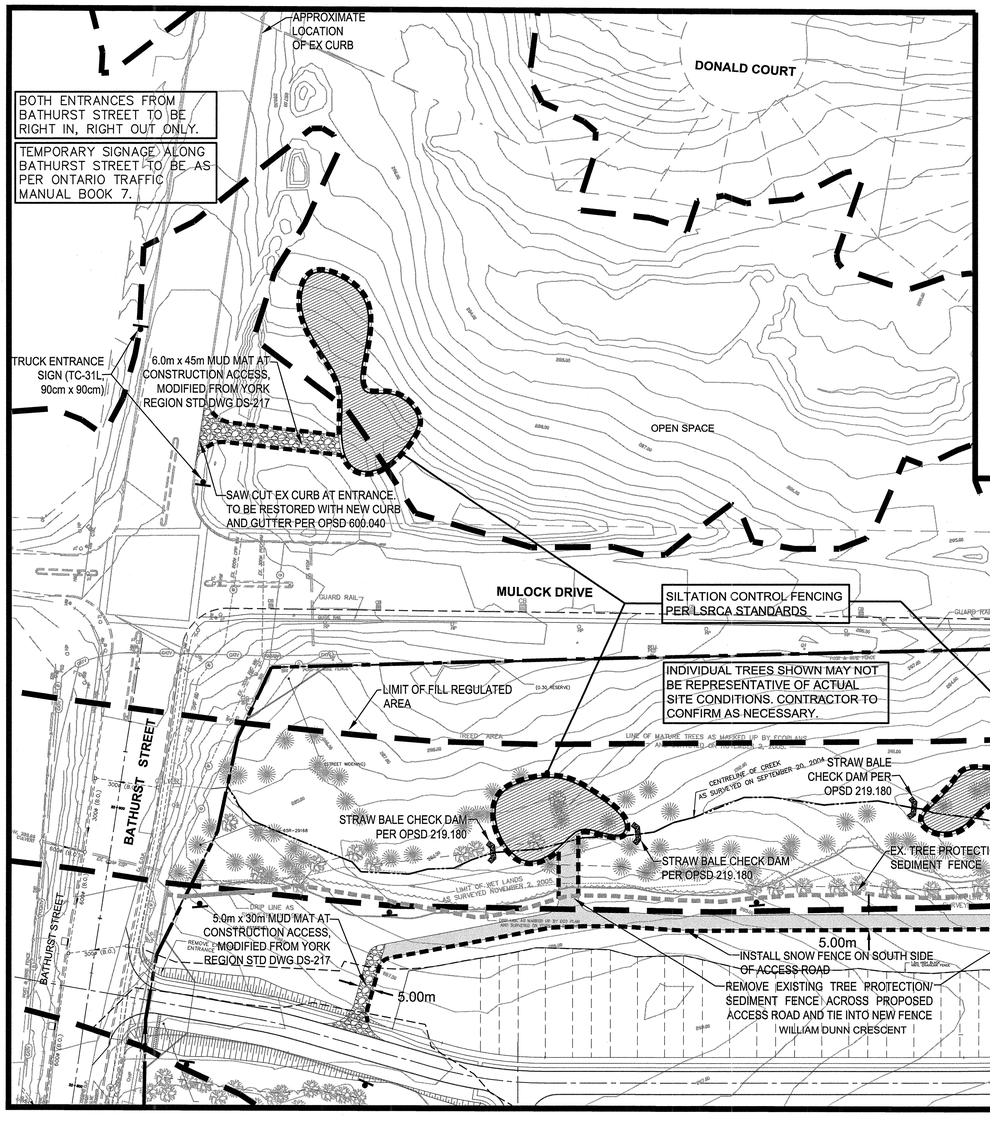
Ian Buchanan,

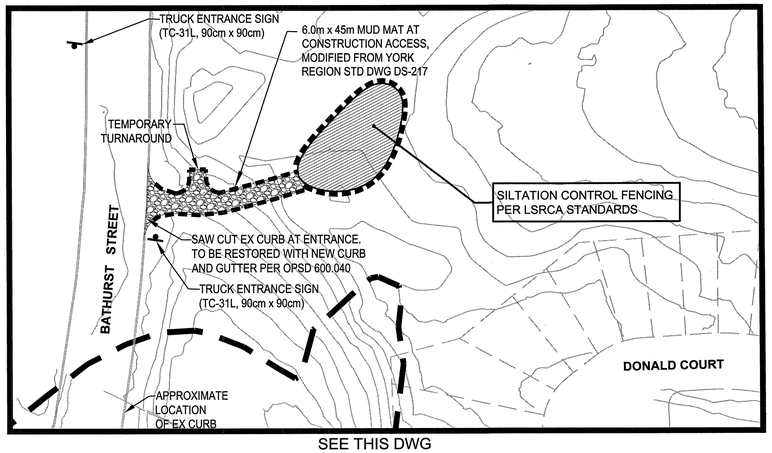
Manager of Natural Heritage and Forestry Services

I hereby acknowledge receipt of this permit and agree to comply

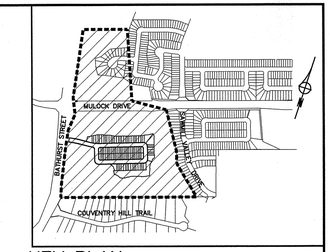
Signature of Applicant

SEE THIS DWG





SEE THIS DWG



KEY PLAN
NTS

LEGEND

- AREAS REQUIRING RISK MANAGEMENT / REMEDIAL ACTION
- PROPOSED ACCESS ROUTES
- PROPOSED MUD MAT
- ALIGNMENT OF EPHEMERAL STREAM
- TREE PROTECTION/SEDIMENT FENCE
- EX TREE PROTECTION/SEDIMENT FENCE
- LIMIT OF FILL REGULATED AREA
- LIMIT OF CRITERION LANDS
- TEMPORARY SIGN (45cm x 60cm) "ENVIRONMENTALLY PROTECTED AREA KEEP OUT"

FOR PLANTINGS AND TRAIL CONSTRUCTION REFER TO ECOPLAN DWGS 3245-L1 TO L6

STABILIZATION REQUIRED FOR ALL AREAS WHICH REMAIN DISTURBED MORE THAN 30 DAYS.

REFER TO DRAWING 10-05015-G1C FOR TOPSOIL MANAGEMENT OF RESIDENTIAL, COMMERCIAL/ INDUSTRIAL, AND WASTE TOPSOIL

EROSION AND SILTATION CONTROL CONSTRUCTION:

1. INSTALL SILTATION CONTROL FENCE.
2. INSTALL PROPOSED ACCESS ROUTES.
3. STRIP TOPSOIL IN AREAS WHERE ARSENIC EXCEEDS COMMERCIAL LAND USE STANDARDS.
4. IMPORT CLEAN TOPSOIL AND PLACE IN STRIPPED AREAS.

EROSION AND SILTATION CONTROL GENERAL NOTES:

1. ALL SILTATION CONTROL FENCE TO BE INSTALLED PRIOR TO THE COMMENCEMENT OF EARTH MOVING.
2. ALL CONSTRUCTION VEHICLES TO ENTER AND LEAVE THE SITE AT APPROVED LOCATIONS ONLY.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SILTATION CONTROL DEVICES AND STRUCTURES IN GOOD WORKING ORDER AT ALL TIMES. DEVELOPER'S CONSULTING ENGINEER SHALL INSPECT SUCH DEVICES REGULARLY AND AFTER EACH RAINFALL EVENT.

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
4	ISSUED FOR TENDER	MAE	JUL 13/12	
3	ISSUED FOR LSRCA PERMIT	MEO	JUL 04/12	
2	REVISED REMEDIATION AREAS PER FINAL RISK ASSESSMENT	CA	MAR 19/12	
1	ISSUED FOR LSRCA APPROVAL	MAE	JULY 29/08	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT: Cri·te'ri·on

MUNICIPALITY: TOWN OF NEWMARKET

PROJECT TITLE: SUMMERHILL WOODS

SHEET TITLE: SITE PLAN FOR IMPACTED TOPSOIL REMOVAL

MMM GROUP
100 Commerce Valley Dr. West
Thornhill, Ont. L3T 0A1
Tel (905) 882-1100
Fax (905) 882-0055
www.mmm.ca

LICENSED PROFESSIONAL ENGINEER M. A. ENNIS PROVINCE OF ONTARIO July 12/12

ACCEPTED

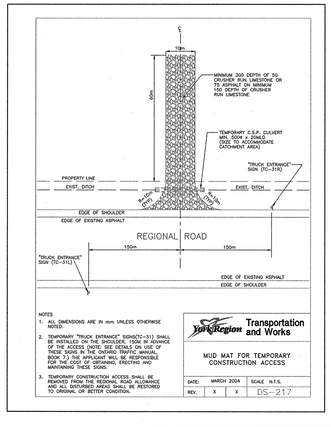
DIRECTOR OF PUBLIC WORKS & ENVIRONMENTAL SERVICES

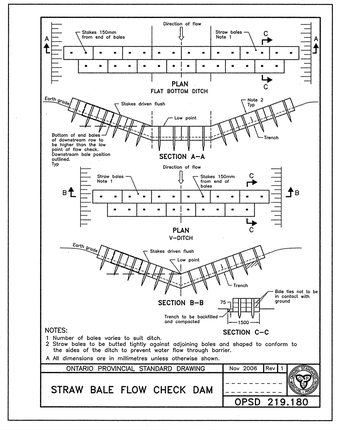
DATE

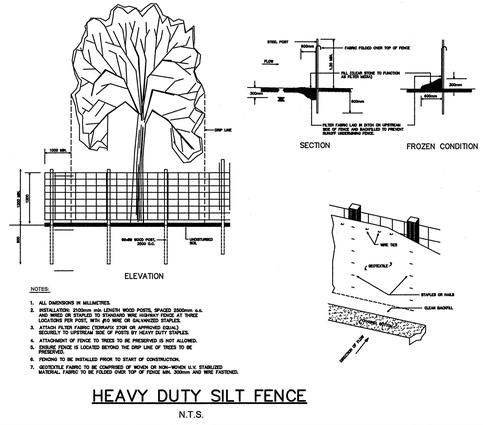
DESIGNED	DRAWN	CHECKED
	10/12 CAD	M.A.E.

SCALE: 1:1000 | DATE: JULY 2008

PROJECT NUMBER: 10-05015 | DWG. NUMBER: TSR1







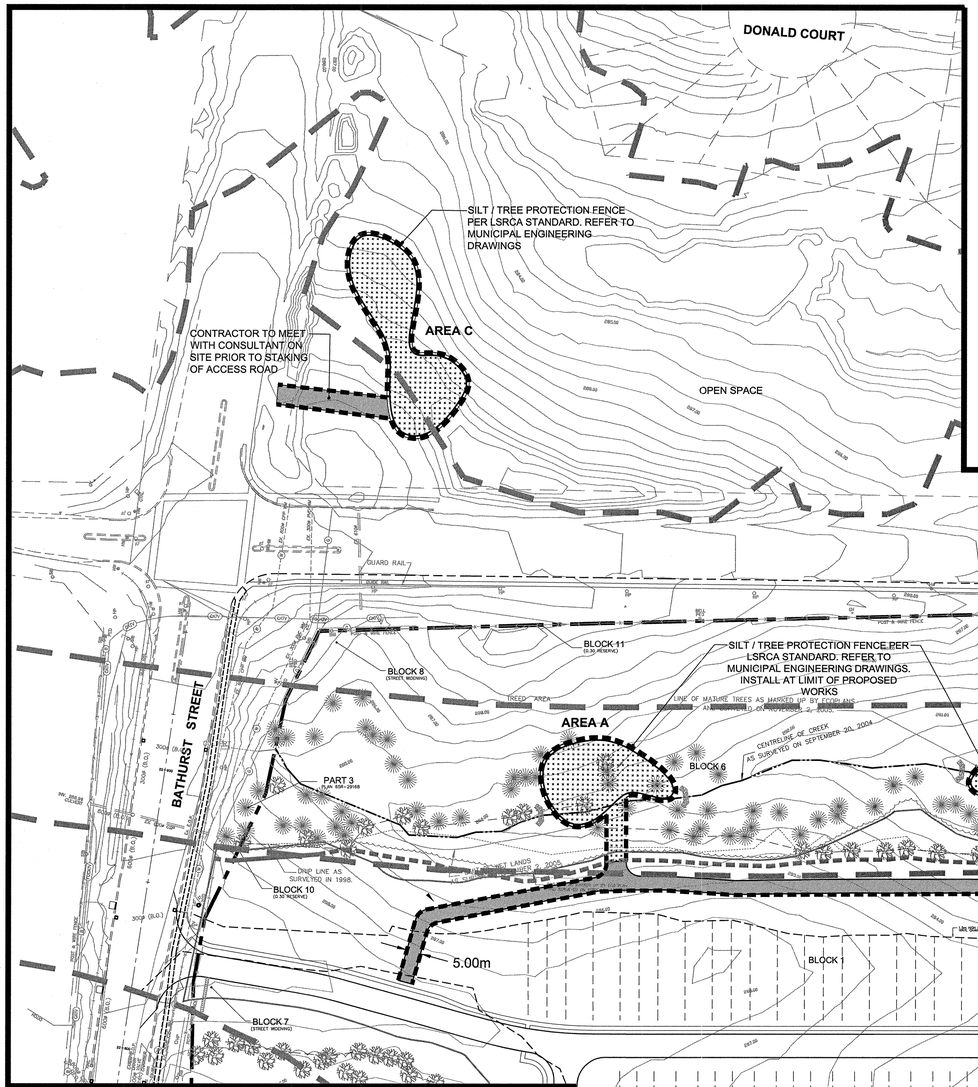
NOTES:
1. ALL DIMENSIONS IN MILLIMETRES.
2. INSTALLATION: 2100mm min LENGTH WOOD POSTS, SPACED 2500mm c.c. AND MIXED OR STAPLED TO STANDARD WIRE HIGHWAY FENCE AT THREE LOCATIONS PER POST, WITH ONE WIRE OF GALVANIZED STAPLES.
3. INSTALL FENCE AS CLOSE AS POSSIBLE TO PERIMETER OF AREA, PREFERABLY TO UPHILL SIDE OF POSTS IF ABOVE GRADE.
4. ATTACHMENT OF FENCE TO TREES TO BE PRESERVED IS NOT ALLOWED.
5. FENCING FENCE IS LOCATED BEYOND THE DRIP LINE OF TREES TO BE PRESERVED.
6. FENCING TO BE INSTALLED PRIOR TO START OF CONSTRUCTION.
7. GEOTEXTILE FABRIC TO BE COMPRISED OF WOVEN OR NON-WOVEN U.V. STABILIZED MATERIAL. FABRIC TO BE FOLDED OVER TOP OF FENCE MIN. 300mm AND WIRE FASTENED.

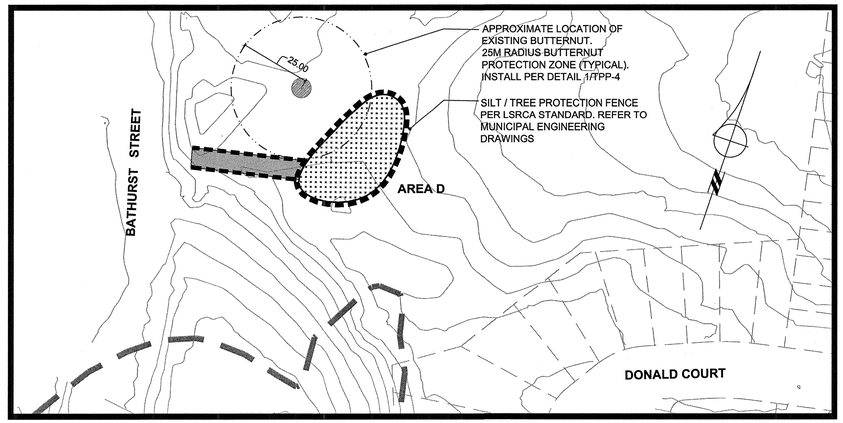
HEAVY DUTY SILT FENCE
N.T.S.

No.	REVISIONS TO DRAWING	BY	DATE	APPR.

FILE NAME: X:\DWG\10-05015\Main\general\Environmental\05015-TSR1.dwg - TSR1 PRINTED ON: Thursday 07/12/2012

MATCHLINE - SEE THIS DRAWING





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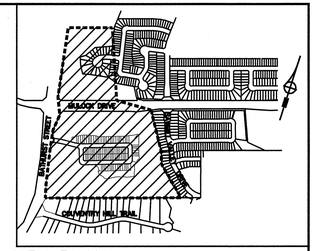


KEY PLAN
NTS

LEGEND

- EXISTING TREES
- REMEDIATION AREA REQUIRING TREE REMOVALS
- PROPOSED ACCESS ROUTES REQUIRING TREE REMOVALS
- EX TREE PROTECTION/SEDIMENT FENCE
- LIMIT OF CRITERION LANDS
- LIMIT OF FILL REGULATED AREA
- SILT FENCE / LIMIT OF TREE PROTECTION ZONE
- EXISTING BUTTERNUT ASSESSED AS 'NON RETAINABLE' BY A REGISTERED BUTTERNUT HEALTH ASSESSOR, IN THE SPRING OF 2012. NO WORK SHALL BE UNDERTAKEN WITHIN 25m OF THIS TREE UNTIL THESE FINDINGS HAVE BEEN REVIEWED BY THE MINISTRY OF NATURAL RESOURCES.

ACCESS ROAD NOTE:

ALL ACCESS ROADS TO BE STAKED AND LAYOUT TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION

SILT / TREE PROTECTION FENCING:

- SHALL BE INSTALLED AS PER DETAILS AND SPECIFICATIONS. INSTALL TO DRIP LINE OR AS SHOWN ON PLAN. TREE PROTECTION FENCE TO BE LSRCA STANDARD SILT FENCE.
- FENCING SHALL REMAIN IN EFFECT UNTIL THE SITE HAS BEEN RE-VEGETATED AND IS STABLE. CONTRACTOR TO REMOVE SILT/TREE PROTECTION FENCING AT THE END OF THE 2 YEAR WARRANTY PERIOD.

TREE REMOVAL:

- ALL REMOVALS MUST BE FELLED INTO THE REMEDIATION AREA TO ENSURE THAT DAMAGE DOES NOT OCCUR TO THE TREES OUTSIDE THE SILT FENCE / TREE PRESERVATION ZONE. UPON COMPLETION OF THE TREE REMOVALS, ALL FELLED TREES ARE TO BE CHIPPED ON SITE INTO MULCH. CONTRACTOR TO STORE 100mm DEPTH OF MULCH EQUAL TO THE AREA OF EACH REMEDIATION ZONE FOR RE-USE DURING THE RESTORATION STAGE. IF THE AMOUNT OF MULCH FROM CHIPPING DOES NOT EQUAL THE SPECIFIED QUANTITY THE CONTRACTOR IS TO IMPORT THE REMAINING QUANTITY. ALL IMPORTED MULCH TO BE SHREDDED CEDAR BARK. ALL EXCESS MULCH (IF ANY) TO BE REMOVED FROM THE SITE.

GENERAL NOTES:

- CONTROL ACCESS AND MOVEMENT OF PEOPLE AND EQUIPMENT TO PREVENT DISTURBANCE TO WETLAND AND ADJACENT FOREST
- IT IS RECOMMENDED THAT AN ECOLOGIST BE ON SITE DURING REMEDIATION WORK TO ENSURE THE BLACK WALNUTS ADJACENT TO THE CONTAMINATED AREAS ARE NOT DAMAGED

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
2	ISSUED FOR TENDER	LSN	JULY.13.2012	
1	ISSUED TO REGION OF YORK	PM	JULY.04.2012	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT: Cri·te'ri·on

MUNICIPALITY: TOWN OF NEWMARKET

PROJECT TITLE: SUMMERHILL WOODS

SHEET TITLE: TREE PRESERVATION & REMOVAL PLAN

MMM GROUP
100 Commerce Valley Dr. West
Thornhill, Ont. L3T 0A1
Tel (905) 882-1100
Fax (905) 882-0055
www.mmm.ca

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — Louise Shaun Nancekivell — 17 July 2012 — MEMBER

ACCEPTED

DIRECTOR OF PUBLIC WORKS & ENVIRONMENTAL SERVICES

DATE

DESIGNED	DRAWN	CHECKED
PM	PM	LSN

SCALE	DATE
1:1000	JULY 2008

PROJECT NUMBER	DWG. NUMBER
10-05015	TP-1

TREE PRESERVATION AND REMOVAL CHARTS - Areas A to F

TREE ID	FREQ/ QTY	BOTANICAL NAME	COMMON NAME	DBH (cm)	Height (m)	TI	Condition CS	CV	Min. Tree Protection Dist.:	Recommendation:	Remarks:
Area A ±145		Woodland	-	-	-	-	-	-	Silt Fence	Remove	Area of clearance is ±1152m². Tree spacing 3-5m (>10cm), 1-2m (<10cm) Trees were assessed at 10cm and above. Understorey: Black Walnut, Black Cherry & White Ash Shrubs: Common Buckthorn & Choke Cherry
	A	Pinus sylvestris	Scots Pine	>10	6 to 9	-	-	-	Silt Fence	Remove	Within remediation zone. 4m average spacing (1152m² / 16m² = 72 trees)
	F	Fraxinus americana	White Ash	>10	-	-	-	-	Silt Fence	Remove	Within remediation area. 5m average spacing (1152m² / 25m² = 46 trees)
	2	Prunus sp.	Cherry species	>10	-	-	-	-	Silt Fence	Remove	Within remediation area.
	1	Juglans nigra	Black Walnut	53	-	-	-	-	Silt Fence	Remove	Within remediation area along top of slope
	2	Ulmus americana	White Elm	>10	-	-	-	-	Silt Fence	Remove	Within remediation area along top of slope
	2	Picea glauca	White Spruce	>10	9	-	-	-	Silt Fence	Remove	Within remediation area
	O	Rhus typhina	Staghorn Sumac	>10	-	-	-	-	Silt Fence	Remove	Within remediation area. 3m average spacing (175m² / 9m² = 20 trees)
Area B ±325		Woodland	-	-	-	-	-	-	Silt Fence	Remove	Area of clearance is ±1366m². Tree spacing 2-10m (>10cm), 1-2m (<10cm) Trees were assessed at 10cm and above. Understorey: Black Walnut, Black Cherry & White Ash Shrubs: Common Buckthorn & Choke Cherry
	O	Juglans nigra	Black Walnut	>10	-	-	-	-	Silt Fence	Remove	Within remediation zone. 5m average spacing
	D	Pinus sylvestris	Scots Pine	>10	6 to 9	-	-	-	Silt Fence	Remove	Within remediation zone. 2-3m average spacing (1366m² / 5m² = 324 trees)
	O	Fraxinus americana	White Ash	>10	-	-	-	-	Silt Fence	Remove	Within remediation area. 10m average spacing (1366m² / 55m² = 25 trees)
	O	Rhus typhina	Staghorn Sumac	>10	-	-	-	-	Silt Fence	Remove	Within remediation area. 3m average spacing (206m² / 9m² = 22 trees)
	R	Crateagus sp.	Hawthorn species	>10	-	-	-	-	Silt Fence	Remove	Within remediation area, top of slope 20m spacing
	R	Prunus sp.	Cherry species	>10	-	-	-	-	Silt Fence	Remove	Within remediation area, top of slope 20m spacing
	R	Ostrya viginiana	Ironwood	>10	-	-	-	-	Silt Fence	Remove	Within remediation area, top of slope 20m spacing
		Access Route									Area of clearance ±160m²
	D	Pinus sylvestris	Scots Pine	>10	-	-	-	-	Silt Fence	Remove	Within remediation. 3-5m spacing
	O	Rhus typhina	Staghorn Sumac	>10	-	-	-	-	Silt Fence	Remove	Within remediation area. 3-5m average spacing
Area C ±300		Woodland - Forest Edge	-	-	-	-	-	-	Silt Fence	Remove	Area of clearance is ±1500m². Tree spacing 2-6m (>10cm), 1-3m (<10cm) Trees were assessed at 10cm and above. Understorey: Green Ash Shrubs: Alternate-leaved Dogwood, Purple Flowering Raspberry
	4	Juglans nigra	Black Walnut	30-45	-	-	-	-	Silt Fence	Retain and Protect	Within access route. Re-align access route to avoid these trees
	1	Fraxinus pennsylvanica	Green Ash	<10	-	-	-	-	Silt Fence	Remove	Within remediation area.
	12	Pinus sylvestris	Scots Pine	25-40	-	-	-	-	Silt Fence	Remove	Within remediation area. 2m average spacing
	O	Acer saccharum	Sugar Maple	>10	-	-	-	-	Silt Fence	Remove	Within remediation area. 10m average spacing
	O	Juglans nigra Forest interior	Black Walnut	>10	-	-	-	-	Silt Fence	Remove	Within remediation area. 6m average spacing
	O	Fraxinus pennsylvanica	Green Ash	>10	-	-	-	-	Silt Fence	Remove	Within remediation area, 2-3m average spacing
	O	Pinus sylvestris	Scots Pine	>10	-	-	-	-	Silt Fence	Remove	Within remediation area, 4-5m average spacing
	O	Juglans nigra	Black Walnut	>30	-	-	-	-	Silt Fence	Remove	Within remediation area, 7m average spacing
Area D ±350		Woodland									Area of clearance is ±1000m². Tree spacing 2-4m (>10cm), 1-3m (<10cm) Trees were assessed at 10cm and above. Understorey: Black Walnut & Green Ash Shrubs: Alternate-leaved Dogwood
	F	Fraxinus pennsylvanica	Green Ash	>10	-	-	-	-	Silt Fence	Remove	Within access route and remediation area. 4m average spacing
	F	Acer saccharum	Sugar Maple	>10	-	-	-	-	Silt Fence	Remove	Within access route. 2-3m average spacing
	O	Juglans nigra	Black Walnut	>10	-	-	-	-	Silt Fence	Remove	Within access route. 2-6m average spacing
	F	Populus grandidentata	Largetooth Aspen	>10	-	-	-	-	Silt Fence	Remove	Within access route. 2-4m average spacing
	R	Pinus strobus	Eastern White Pine	>10	7-9	-	-	-	Silt Fence	Remove	Within access route. 10m average spacing
	O	Quercus rubra	Red Oak	>10	-	-	-	-	Silt Fence	Remove	Within access route. 5-10m average spacing
	F	Tsuga canadensis	Eastern White Hemlock	>10	7-9	-	-	-	Silt Fence	Remove	Within remediation area, 4-5m average spacing
	F	Picea glauca	White Spruce	>10	7-9	-	-	-	Silt Fence	Remove	Within remediation area, 4m average spacing, along north facing slope
	F	Pinus sylvestris	Scots Pine	>10	7-9	-	-	-	Silt Fence	Remove	Within remediation area, 4-5m average spacing
	1	Juglans cinerea	Butternut	>10	-	-	-	-	Silt Fence	Retain & Protect	Assessed as 'Non Retainable' in Spring of 2012 by Registered Butternut Health Assessor No work shall occur with in 25m until MNR has reviewed & approved assessment
Area E		Woodland									Area of clearance is ±150m². Tree spacing 2-5m (>10cm), 1-3m (<10cm)
	A	Populus grandidentata	Largetooth Aspen	>10	-	-	-	-	Silt Fence	Remove	Within remediation area, 3-5m spacing
	A	Populus tremuloides	Trembling Aspen	>10	-	-	-	-	Silt Fence	Remove	Within remediation area, 3-5m spacing
	O	Pinus sylvestris	Scots Pine	>10	6 to 9	-	-	-	Silt Fence	Remove	Within remediation area, 2-3m average spacing
	O	Acer negundo	Manitoba Maple	>10	-	-	-	-	Silt Fence	Remove	Within remediation area, 5-8m average spacing
	O	Rhus typhina	Staghorn Sumac	>10	-	-	-	-	Silt Fence	Remove	Within remediation area. 3-5m average spacing
Area F		Woodland									Open canopy herbaceous plant material, no trees

Frequency Legend:

D Dominant
A Abundant
F Frequent
O Occasional
R Rare
1 Numerical value

TREE INVENTORY AND ASSESSMENT NOTES:

ASSESSMENT:

- VEGETATION WAS ASSESSED BASED ON A VISUAL INSPECTION OF THE TRUNK AND BRANCH CONDITION, STRUCTURE, FOLIAGE CONDITION, AND EVIDENCE OF ABIOTIC (ENVIRONMENTAL, MECHANICAL AND PHYSICAL DAMAGE) AND BIOTIC (INSECTS AND DISEASE) STRESSORS.
- TRUNK INTEGRITY: ASSESSMENT OF THE TRUNK FOR ANY DEFECTS
- CANOPY STRUCTURE: ASSESSMENT OF THE SCAFFOLD BRANCHES AND CANOPY OF THE TREE
- CANOPY VIGOUR: ASSESSMENT OF THE AMOUNT OF DEADWOOD VERSUS LIVE GROWTH IN THE TREE CROWN, ALSO CONSIDER SIZE, COLOUR AND AMOUNT OF FOLIAGE.
- AS TREE HEALTH IS BEST JUDGED IN LATE SUMMER WHEN TREE STRESS IS REFLECTED BY FOLIAGE CONDITION, THE CONDITION OF DECIDUOUS TREES WAS NOT ABLE TO BE ACCURATELY DETERMINED. SINCE THE INVENTORY WAS CONDUCTED DURING THE LATE FALL VEGETATION WAS ASSESSED BASED ON TRUNK INTEGRITY AND CANOPY STRUCTURE.

RECOMMENDATIONS:
RECOMMENDATIONS ARE BASED ON THE CONDITION AND LOCATIONS OF VEGETATION.

- VEGETATION RECOMMENDED TO BE 'RETAINED' ARE DEEMED TO BE MINIMALLY AFFECTED BY DEVELOPMENT AND/ OR OUTSIDE OF THE LIMITS OF CONSTRUCTING. THIS DESIGNATION MAY ALSO BE APPLIED TO TREES THAT ARE IN EXCELLENT, GOOD OR FAIR CONDITIONS AND SPECIES AT RISK.
- VEGETATION RECOMMENDED TO BE 'REMOVED' ARE DEEMED TO BE WITHIN DEVELOPMENT/CONSTRUCTION LIMITS AND WOULD NOT BE ABLE TO WITHSTAND CONSTRUCTION RELATED ACTIVITIES OR CHANGES TO GRADES. THIS DESIGNATION ALSO MAY BE APPLIED TO TREES THAT ARE DEAD, IN POOR CONDITION OR TREES THAT COULD POSE FUTURE SAFETY CONCERN.S

REGIONAL BY-LAWS:
THE REGIONAL MUNICIPALITY OF YORK HAS A BY-LAW THAT PROHIBITS OR REGULATES THE DESTRUCTION OR INJURING OF TREES IN THE REGIONAL MUNICIPALITY OF YORK (BY-IAW NO. TR-0004-2005-036). THIS BY-LAW APPLIES TO 'WOODLANDS' AND 'WOODLOTS'.

'WOODLAND' means land at least 1ha in area with at least:

- 1000 trees, of any size, per ha;
- 750 trees, measuring over 5cm dbh, per ha;
- 500 trees, measuring over 12cm dbh, per ha;
- 250 trees, measuring over 20cm dbh, per ha

'WOODLOT' means land at least 0.2ha in area and no greater than 1ha in area, with at least:

- 200 trees , of any size, per 0.2ha;
- 150 trees, measuring over 5cm dbh, per 0.2ha;
- 100 trees, measuring over 12cm dbh, per 0.2ha;
- 50 trees, measuring over 20cm dbh, per 0.2ha

BASED ON THE ABOVE DEFINITIONS THE PROPOSED WORK WORK WOULD BE SUBJECT TO THIS BY-LAW UNDER THE 'WOODLAND' DEFINITION. **A 'SPECIAL PERMIT' WILL BE REQUIRED FROM THE REGION FOR THE REMOVAL OF TREES WITHIN AREA 'C'.**

EXEMPTIONS:

- Areas A and B are part of a subdivision agreement and therefore exempt from the Region's By-law No. TR-0004-2005-36 as per section 3.1(d)
- Area C is subject to the Region's By-law. Therefore a Special Permit will be required prior to any tree removals in this area.
- Areas D, E and F are within the Town of Newmarket's lands and part of a subdivision agreement. Therefore these areas are exempt from the Town's By-law No.2007-71 as per section 2.1(d).

DEFINITIONS:

DBH — THIS REFERS TO DIAMETER (IN CENTIMETRES) AT BREAST HEIGHT AND IS MEASURED AT 1.3m ABOVE THE GROUND FOR EACH TREE

TRUNK INTEGRITY (T.I.): — THIS IS AN ASSESSMENT OF THE TRUNK FOR ANY DEFECTS OR WEAKNESSES . IT IS MEASURED ON A SCALE OF POOR, FAIR, GOOD.

CANOPY STRUCTURE (C.S.): — THIS IS AN ASSESSMENT OF THE SCAFFOLD BRANCHES, UNIONS AND THE CANOPY OF THE TREE. THIS IS MEASURED ON A SCALE OF POOR, FAIR, GOOD.

CANOPY VIGOUR (C.V.): — THIS IS AN ASSESSMENT OF THE HEALTH OF THE TREE AND ASSESS THE AMOUNT OF DEADWOOD AND THE LIVE GROWTH IN THE CROWN AS COMPARED TO A 100% HEALTHY TREE. THE SIZE, COLOUR AND AMOUNT OF FOLIAGE ARE ALSO CONSIDERED IN THIS CATEGORY. THIS IS MEASURED ON A SCALE OF POOR, FAIR, GOOD.

TREE PROTECTION ZONE: — THIS REFERS TO THE PRESERVATION AREA OF THE TREE TO BE PROTECTED WITH TREE PROTECTION MEASURES. NO CONSTRUCTION ACTIVITIES ARE TO BE UNDERTAKEN WITHIN THIS ZONE.

CONDITION ASSESSMENTS (G, F, P):

GOOD — TREE DISPLAYS LESS THAN 15% DEFICIENCY/DEFECT WITHIN THE GIVEN TREE ASSESSMENT CRITERIA (TI, CS, CV).

FAIR — TREE DISPLAYS 15%-40% DEFICIENCY/DEFECT WITHIN THE GIVEN TREE ASSESSMENT CRITERIA (TI, CS, CV).

POOR — TREE DISPLAYS GREATER THAN 40% DEFICIENCY / DEFECT WITHIN THE GIVEN TREE ASSESSMENT CRITERIA (TI, CS, CV)

ASSUMPTIONS:

- TREES WITHIN THE REMEDIATION AREAS WERE ASSESSED AT 10cm DBH AND ABOVE.

TREE PRESERVATION NOTES AND GUIDELINES

ESTABLISHMENT OF TREE PROTECTION ZONE (TPZ)

- TREE PRESERVATION MEASURES, INCLUDING THE ESTABLISHMENT OF TREE PROTECTION ZONE (TPZ) SHALL APPLY TO THE VEGETATION OUTSIDE OF REMEDIATION AREAS AND ACCESS ROADS PROTECTED BY A LAKE SIMCOE AND REGION CONSERVATION AUTHORITY (LSRCA) STANDARD SILT FENCE. REFER TO PLANS TP-1 TO TP-2.
- NO GRADE CHANGES SHALL OCCUR WITHIN TREE PROTECTION ZONE. IN THE ADVENT THAT GRADE CHANGES OCCUR EITHER AS A CUT OR FILL SITUATION, THE CONSULTING ARBORIST MUST BE NOTIFIED SO THAT PRECAUTIONS TO PRESERVE THE TREE CAN BE DETERMINED PRIOR TO THE PLACEMENT OF FILL OR EXCAVATION ACTIVITIES
- EVERY PRECAUTION MUST BE TAKEN TO PREVENT DAMAGE TO TREES AND ROOT SYSTEMS FROM DAMAGE, COMPACTION AND CONTAMINATION RESULTING FROM THE CONSTRUCTION TO THE SATISFACTION OF THE CONSULTING ARBORIST.
- TREES THAT REQUIRE PRUNING TO PERMIT CONSTRUCTION ACTIVITIES WILL BE DONE SO IN ACCORDANCE WITH GOOD ARBORICULTURAL PRACTICES. IN THE EVENT THAT IT IS NECESSARY TO REMOVE ADDITIONAL LIMBS OR PORTIONS OF TREES, AFTER CONSTRUCTION HAS COMMENCED, TO ACCOMMODATE CONSTRUCTION, THE CONSULTING ARBORIST IS TO BE INFORMED AND UNDER THEIR DIRECTION THE REMOVAL IS TO BE EXECUTED CAREFULLY AND IN FULL ACCORDANCE WITH ARBORICULTURAL TECHNIQUES, BY A CERTIFIED ARBORIST.
- ANY DAMAGE TO TREES SUCH AS BROKEN LIMBS, DAMAGE TO ROOTS, OR WOUNDS TO THE MAIN TRUNK OR STEM SYSTEMS ARE TO BE REPORTED TO THE CONSULTING ARBORIST SO THAT THE DAMAGE CAN BE ASSESSED IMMEDIATELY AND MITIGATION CAN BE PROMPTLY IMPLEMENTED.

TREE PROTECTION ZONE:
APPLIES TO TREES LOCATED OUTSIDE THE REMEDIATION AREAS. THESE TREES ARE TO BE PRESERVED AND WILL HAVE SILT / TREE PROTECTION FENCING INSTALLED AT ALONG THE LIMIT OF GRADING / LIMIT OF WORK TO ESTABLISH THE TREE PROTECTION ZONE. ANY DAMAGE TO TREES SUCH AS BROKEN LIMBS, DAMAGE TO ROOTS, OR WOUNDS TO THE MAIN TRUNK OR STEM SYSTEMS ARE TO BE REPORTED TO THE CONSULTING ARBORIST SO THAT THE DAMAGE CAN BE ASSESSED IMMEDIATELY AND MITIGATION CAN BE PROMPTLY IMPLEMENTED. WITHIN A TREE PROTECTION ZONE THERE IS TO BE:

- NO CONSTRUCTION
- NO ALTERING OF GRADE BY ADDING FILL, EXCAVATING, TRENCHING, SCRAPING, DUMPING OR DISTURBANCE OF ANY KIND.
- NO STORAGE OF CONSTRUCTION MATERIALS, EQUIPMENT, SOIL, CONSTRUCTION WASTE OR DEBRIS WITHIN THE DRIP LINE
- NO MOVEMENT OF VEHICLES, EQUIPMENT
- NO PARKING OF VEHICLES OR MACHINERY
- NO DIGGING, BORING
- NO RIGGING CABLES SHALL BE WRAPPED AROUND OR INSTALLED IN TREES
- NO CONTAMINANTS WILL BE PLACED OVER ROOT SYSTEM
- NO CONTAMINANTS WILL BE DUMPED OR FLUSHED WHERE FEEDER ROOTS OF TREES EXIST

WORK WITHIN A TREE PROTECTION ZONE
IF WORK MUST BE CONDUCTED WITHIN A TREE PROTECTION FENCE THE CONTRACTOR SHOULD MINIMIZE SOIL COMPACTION AND MECHANICAL ROOT DAMAGE BY UTILIZING ONE OF THE FOLLOWING FOUR METHODS:

1. APPLYING 150-300mm OF MULCH TO AREA. UPON COMPLETION REMOVE EXCESS MULCH LEAVING A 100mm DEPTH LAYER OF MULCH.
2. LAYING 200mm THICK PLYWOOD OR 100X100mm WOOD BEAMS OVER A 100+MM THICK LAYER OF WOOD CHIP MULCH. UPON COMPLETION REMOVE PLYWOOD AND LEAVE MULCH LAYER IN PLACE.
3. APPLYING 100-150mm DEPTH OF GRAVEL OVER A TAUT, STAKED GEOTEXTILE FABRIC. UPON COMPLETION REMOVE GRAVEL AND GEOTEXTILE.
4. PLACING COMMERCIAL LOGGING OR ROAD MATS ON TOP OF A MULCH LAYER. UPON COMPLETION REMOVE MATS. STONE, GEOTEXTILE, AND MULCH EXCEEDING 100mm THICK WILL BE REMOVED FROM THE TREE PRESERVATION AREA ONCE THE THREAT OF SOIL OR ROOT DAMAGE HAS PASSED.

ROOT PRUNING
AT THE COMMENCEMENT OF CONSTRUCTION PRUNE ROOTS CLEANLY USING ACCEPTABLE ARBORICULTURAL PRACTICES AND IMMEDIATELY BACKFILLED WITH APPROPRIATE MATERIAL. ROOTS OVER 2.5cm DIAMETER THAT ARE TO BE CUT SHOULD BE PRUNED RATHER THAN LEFT TORN OR CRUSHED. THE FOLLOWING ARE GENERAL METHODS OF ROOT PRUNING:

1. SOIL EXCAVATION USING SUPERSONIC AIR TOOLS, PRESSURIZED WATER OR HAND TOOLS, FOLLOWED BY SELECTIVE ROOT CUTTING
2. CUTTING THROUGH THE SOIL ALONG A PREDETERMINED LINE ON THE SURFACE USING TOOL SPECIFICALLY DESIGNED TO CUT ROOTS
3. MECHANICALLY EXCAVATING (e.g. BACKHOE) THE SOIL AND PRUNING WHAT IS LEFT OF THE EXPOSED ROOTS.
4. CUTS TO BE MADE WITH HAND PRUNING SHEARS, BY-PASS BLADE, PRUNING SAW. DO NOT USE ANVIL TYPE PRUNER'S.

TREE INJURY:
TYPICALLY TREE ROOTS EXTEND 1.5 TO 3 TIMES BEYOND THE DRIPLINE OF THE TREE AND ARE WITHIN THE TOP 150mm OF THE SOIL. TYPES OF DAMAGE FROM CONSTRUCTION INCLUDE:

- PHYSICAL INJURY
- SOIL COMPACTION
- SEVERING OF ROOTS
- SMOTHERING OF ROOTS
- SPLIT OR BROKEN BRANCHES
- EXCESSIVE PRUNING

SOIL COMPACTION REDUCES PORE SPACE, OXYGEN AVAILABLE TO ROOTS INCREASES CARBON DIOXIDE ACCUMULATION, RESTRICTS ROOT GROWTH AND THE ABILITY TO ABSORB WATER AND NUTRIENTS, AS WELL AS IMPAIRS DRAINAGE.
SMOTHERING OF ROOTS: 90% OF FINE ABSORBING ROOTS ARE WITHIN THE UPPER 150-300mm OF THE SOIL. SMOTHERING WITH THE ADDITION OF SOIL CAN KILL THE ROOTS AND STRESS THE TREE.
SEVERING ONE MAJOR ROOT CAN CAUSE THE LOSS OF 15-25% OF THE ENTIRE ROOT SYSTEM.
PHYSICAL INJURY, SPLIT OR BROKEN BRANCHES HINDER THE TREES ABILITY TO COMPARTMENTALIZE (CLOSE) WOUNDS PROPERLY.

TREE PRESERVATION AND PROTECTION RECOMMENDATIONS

THE SURVIVAL RATES FOR TREES, WHICH ARE IN PROXIMITY TO CONSTRUCTION SITES ARE DEPENDENT ON THE RESULTANT CHANGES TO A VARIETY OF ENVIRONMENTAL AND ANTHROPOGENIC FACTORS. THESE CONSTRUCTION ACTIVITIES BRING ABOUT CHANGES TO A VARIETY OF ENVIRONMENTAL FEATURES INCLUDING THE EXISTING MICROCLIMATE INCLUDING WINDS, TEMPERATURE, SOIL MOISTURE, AMOUNT OF AVAILABLE SUNLIGHT, SOIL QUALITY, AND THE LEVEL OF THE WATER TABLE. INCREASED HUMAN ACTIVITIES MAY ALSO DAMAGE THE STRUCTURE AND / OR PHYSIOLOGICAL ACTIVITIES OF THE TREES. THE FULL EFFECTS OF THE DAMAGE MAY NOT APPEAR UNTIL SEVERAL YEARS AFTER ITS OCCURRENCE. THUS, IT IS ESSENTIAL THAT BOTH VEGETATIVE CLEARING AND PRESERVATION METHODS FOLLOW THE GUIDELINES BELOW AND THOSE GENERALLY ACCEPTED AS KEEPING WITH GOOD HORTICULTURAL AND CONSTRUCTION PRACTICES. THE GUIDELINES ARE SUBJECT TO ADJUSTMENTS DEEMED REASONABLE AND APPROPRIATE CONSIDERING THE PROXIMITY AND NUMBER OF TREES INVOLVED AND THE SITE-SPECIFIC SERVICING REQUIREMENT

GENERAL RECOMMENDATIONS

- ALL TREES WITHIN THE TREE PRESERVATION ZONE MUST BE LEFT STANDING. THE TREE REMOVALS MUST BE COORDINATED TO BE COMPLETED OUTSIDE OF THE NESTING SEASON, **MAY 1 TO AUGUST 8**.
- ALL REMOVALS MUST BE FELLED INTO THE WORK AREA TO ENSURE THAT DAMAGE DOES NOT OCCUR TO THE TREES WITHIN THE TREE PRESERVATION ZONE.
- UPON COMPLETING OF THE TREE REMOVALS, ALL FELLED TREES ARE TO BE CHIPPED. THIS WORK MUST BE COMPLETED OUTSIDE OF THE NESTING SEASON, **MAY 1 TO AUGUST 8.**
- TREE PROTECTION FENCING / SILT FENCE MUST BE INSTALLED AS PER THE LSRCA STANDARD SILT FENCE DETAIL AND AS SHOWN ON THE APPROVED MUNICIPAL ENGINEERING PLAN. UPON INSTALLATION OF THE FENCING, THE CONTRACTOR WILL CONTACT THE CONSULTING ARBORIST TO REVIEW AN APPROVE THE FENCING AND ITS LOCATION PRIOR TO COMMENCEMENT OF ANY GRADING WORK.
- AREAS WITHIN THE TREE PRESERVATION ZONE ARE NOT TO BE USED FOR ANY TYPE OF STORAGE (E.G. STORAGE OF DEBRIS, CONSTRUCTION MATERIAL, SURPLUS SOILS, AND CONSTRUCTION EQUIPMENT). NO TRENCHING OR TUNNELLING FOR UNDERGROUND SERVICES SHALL BE LOCATED WITHIN THE TREE PROTECTION ZONE OR DRIPLINE OF TREES DESIGNATED FOR PRESERVATION WITHIN OR ADJACENT TO THE CONSTRUCTION ZONE.
- IN THE EVENT THAT IT IS NECESSARY TO REMOVE ADDITIONAL LIMBS OR PORTIONS OF TREES, AFTER CONSTRUCTION HAS COMMENCED, TO ACCOMMODATE CONSTRUCTION, THE CONSULTING ARBORIST IS TO BE INFORMED AND UNDER THEIR DIRECTION THE REMOVAL IS TO BE EXECUTED CAREFULLY AND IN FULL ACCORDANCE WITH ARBORICULTURAL TECHNIQUES, BY A CERTIFIED ARBORIST.

PRUNING PRACTICES:

- ALL LIMBS DAMAGED OR BROKEN DURING THE COURSE OF CONSTRUCTION SHOULD BE PRUNED CLEANLY, UTILIZING BY-PASS SECATEURS IN ACCORDANCE WITH APPROVED HORTICULTURAL PRACTICES. SHOULD THERE BE A POTENTIAL RISK OF TRANSFER OF DISEASE FROM INFECTED TO NON-INFECTED TREES, TOOLS MUST BE DISINFECTED AFTER PRUNING EACH TREE BY DIPPING IN METHYL HYDRATE. THIS PRACTICE IS PARTICULARLY IMPORTANT DURING PERIODS OF TREE STRESS AND WHEN PRUNING MANY MEMBERS OF THE SAME GENERA, WITHIN WHICH A DISEASE COULD BE SPREAD QUICKLY (I.E., VERTICILLIUM WILT ON MAPLES OR FIREBLIGHT ON GENERA OF THE ROSACEA FAMILY).

- DURING EXCAVATION OPERATIONS IN WHICH THE ROOT AREA IS AFFECTED, THE CONTRACTOR IS TO PRUNE ALL EXPOSED ROOTS CLEANLY. PRUNED ROOT ENDS ARE TO BE NEATLY AND SQUARELY TRIMMED AND THE AREA IS TO BE BACKFILLED WITH CLEAN NATIVE FILL AS SOON AS POSSIBLE TO PREVENT DESICCATION AND PROMOTE ROOT GROWTH. THE EXPOSED ROOTS SHOULD NOT BE ALLOWED TO DRY OUT, AND THE CONTRACTOR SHALL DISCUSS WATERING OF THE ROOTS WITH THE CONSULTING ARBORIST SO THAT THE ROOTS SHALL MAINTAIN OPTIMUM SOIL MOISTURE DURING CONSTRUCTION AND BACKFILLING OPERATIONS, YET SO NOT TO INTERFERE WITH CONSTRUCTION OPERATIONS. BACKFILLING MUST BE WITH CLEAN UNCONTAMINATED TOPSOIL FROM AN APPROVED SOURCE. TEXTURE MUST BE COARSER THAN EXISTING SOILS, AND TO COME INTO CLEAN CONTACT WITH EXISTING SOILS (REMOVE AIR POCKETS, SOD, ETC.)

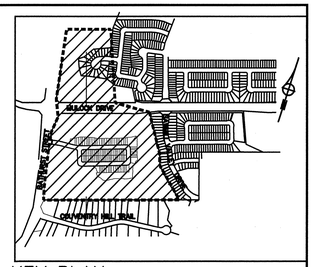
- ALL PRUNING CUTS SHOULD BE MADE TO A GROWING POINT SUCH AS A BUD, TWIG OR BRANCH, CUT JUST OUTSIDE THE BRANCH COLLAR (THE SWOLLEN AREA AT THE BASE OF THE BRANCH THAT SOMETIMES HAS A BARK RIDGE), AND PERPENDICULAR TO THE BRANCH BEING PRUNED RATHER THAN AS CLOSE TO THE TRUNK AS POSSIBLE. THIS MINIMIZES THE SITE OF THE WOUND. NO STUBS SHOULD BE LEFT. POOR CUT LOCATION, POOR CUT ANGLE AND TORN CUTS ARE NOT ACCEPTABLE.

- TREE ROOTS SHOULD NOT BE EXCAVATED WITHIN THE CRITICAL STRUCTURAL ROOTING AREA.
THIS IS THE MINIMUM AREA OF THE ROOT SYSTEM NECESSARY TO MAINTAIN VITALITY OR STABILITY OF THE TREE. TYPICALLY THIS AREA EXTENDS TO THE DRIPLINE OF THE TREE. THE SEVERING OF ONE ROOT CAN CAUSE APPROXIMATELY 5-20% LOSS OF THE ROOT SYSTEM. A REDUCTION OF THIS AREA BY GREATER THAN 30% CAN POSE STABILITY CONCERNS FOR THE TREE.

- EXTENSIVE PRUNING IS BEST COMPLETED BEFORE PLANTS BREAK DORMANCY. PRUNING SHOULD BE LIMITED TO THE REMOVAL OF NO MORE THAN ONE THIRD (1/3) OF THE TOTAL BUD AND LEAF BEARING BRANCHES. PRUNING SHOULD INCLUDE THE CAREFUL REMOVAL OF:
  - O DEADWOOD,
  - O BRANCHES THAT ARE WEAK, DAMAGED, DISEASED AND THOSE WHICH WILL INTERFERE WITH CONSTRUCTION ACTIVITY,
  - O SECONDARY LEADERS OF CONIFERS,
  - O TRUNK AND ROOT SUCKERS,
  - O TRUNK WATERSPOUTS, AND
  - O TIGHT V-SHAPED OR WEAK CROTCHES (INCLUDED UNIONS).

THE CONTRACTOR MUST REPORT IMMEDIATELY ANY DAMAGE TO TREES SUCH AS BROKEN LIMBS, DAMAGE TO ROOTS, OR WOUNDS TO THE MAIN TRUNK OR STEM SYSTEMS SO THAT THE DAMAGE CAN BE ASSESSED IMMEDIATELY.

THE TREE PROTECTION FENCING WILL BE MAINTAINED UNTIL ALL CONSTRUCTION IS COMPLETED, SOILS ARE STABILIZED AND ALL OF THE EQUIPMENT HAS BEEN REMOVED FROM THE SITE.



KEY PLAN
NTS

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
1	ISSUED TO REGION OF YORK	PM	JULY 13, 2012	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT
Cri ·te ' ri ·on

MUNICIPALITY
TOWN OF NEWMARKET

PROJECT TITLE
SUMMERHILL WOODS

SHEET TITLE
TREE PRESERVATION DETAILS & NOTES PLAN

MMM GROUP
100 Commerce Valley Dr. West
Thornhill, Ont. L3T 0A1
Tel (905) 882-1100
Fax (905) 882-0055
www.mmm.ca

ACCEPTED

DIRECTOR OF PUBLIC WORKS & ENVIRONMENTAL SERVICES

DATE

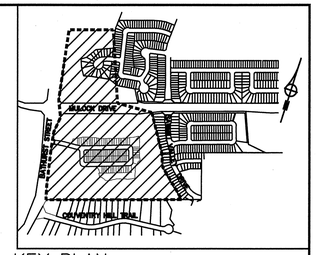
DESIGNED	DRAWN	CHECKED
TN	TN	LSN

SCALE	DATE
AS SHOWN	JULY 2008

PROJECT NUMBER	DWG. NUMBER
10-05015	TP-2

MATCHLINE - SEE THIS DRAWING

MATCHLINE - SEE THIS DWG



KEY PLAN
NTS

LEGEND

- AREAS REQUIRED VEGETATION RESTORATION
- PROPOSED HYDROSEEDING - TYPE 'A' (UPLAND SEED MIX)
- PROPOSED HYDROSEEDING - TYPE 'B' (LOWLAND SEED MIX)
- PROPOSED SHRUBS
- EX TREE PROTECTION/SEDIMENT FENCE
- LIMIT OF CRITERION LANDS
- LIMIT OF FILL REGULATED AREA
- SILT FENCE / TREE PROTECTION FENCE
- Pg1 / 6 — PLANT IDENTIFICATION KEY
- LS-2 — LIVE STAKES IDENTIFICATION KEY

PLANTING NOTES:

- SHRUBS TO BE PLANTED AT 0.75m TO 1.0m o.c. PLANT ALONG CONTOUR ELEVATIONS.
- TREES TO BE PLANTED AT 2.5m TO 3.0m o.c.
- PLANT WHITE SPRUCE (3m ht.) OUTSIDE OF RESTORATION AREAS 'A' AND 'B' FOR SCREENING
- ALL PLANTS TO BE STAGGERED / NATURAL. ROWS ARE NOT ACCEPTABLE

NOTES:

- ALL ACCESS ROADS TO BE STAKED AND LAYOUT TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION
- REFER TO SHEET LA-2 FOR PLANT LISTS, DETAILS AND SPECIFICATIONS
- MAINTAIN SILT FENCE UNTIL RESTORATION IS COMPLETE AND SITE IS STABLE

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
2	ISSUED FOR TENDER	LSN	JULY.13.2012	
1	ISSUED TO REGION OF YORK	PM	JULY.04.2012	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT
Cri·te'ri·on

MUNICIPALITY
TOWN OF NEWMARKET

PROJECT TITLE
SUMMERHILL WOODS

SHEET TITLE
RESTORATION OF CONTAMINATED AREAS

MMM GROUP
100 Commerce Valley Dr. West
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ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — Lorraine Sham Nanoopsingh — MEMBER

ACCEPTED

DIRECTOR OF PUBLIC WORKS & ENVIRONMENTAL SERVICES

DATE

DESIGNED	DRAWN	CHECKED
TN	TN	LSN

SCALE 1:1000 — DATE JULY 2008

PROJECT NUMBER 10-05015 — DWG. NUMBER LA-1

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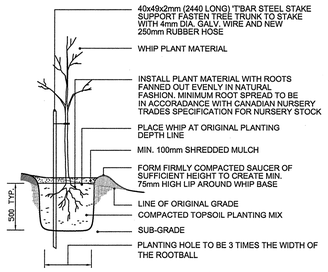
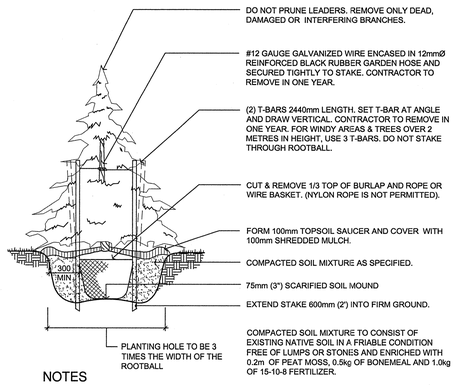


DECIDUOUS (WHIP) PLANTING DETAIL

SCALE 1 : 30

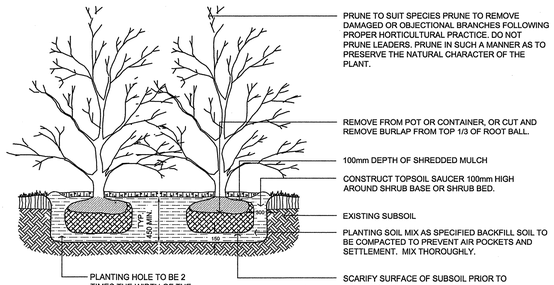


NOTES

- APPLY ANTI-DESSICANT PRIOR TO DELIVERY.
- PLANT TREE NO HIGHER THAN 50mm ABOVE ORIGINAL GROUND GRADE TO ALLOW FOR SETTLEMENT.
- WATER AT TIME OF PLANTING AND WHENEVER DEEMED NECESSARY TO MAINTAIN TREES IN A HEALTHY CONDITION.
- CONTRACTOR TO REMOVE ALL TAGS AND LABELS PRIOR TO END OF WARRANTY PERIOD.
- FOR CONIFEROUS PLANTING ON SLOPE CONDITIONS, INSTALL IN SIMILAR MANNER AS THE DETAIL "DECIDUOUS TREE PLANTING ON SLOPE".

CONIFEROUS TREE PLANTING DETAIL

SCALE 1 : 30



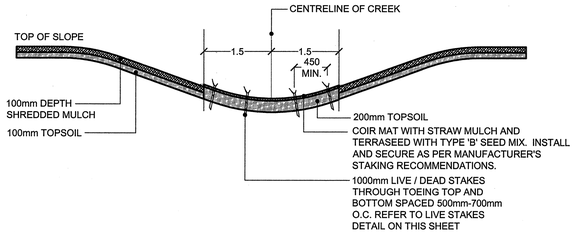
NOTES

- APPLY ANTI-DESSICANT PRIOR TO DELIVERY.
- PLANT TREE NO HIGHER THAN 50mm ABOVE ORIGINAL GROUND GRADE TO ALLOW FOR SETTLEMENT.
- WATER AT TIME OF PLANTING AND WHENEVER DEEMED NECESSARY TO MAINTAIN TREES IN A HEALTHY CONDITION.
- CONTRACTOR TO REMOVE ALL TAGS AND LABELS PRIOR TO END OF WARRANTY PERIOD.

SHRUB PLANTING DETAIL

SCALE 1 : 30

- STAKES TO BE EITHER CUT DEADWOOD OF ACCEPTABLE MATERIAL, OR FROM UNTREATED 2X4 LUMBER. MINIMUM 70cm LONG. CUT EACH LENGTH DIAGONALLY ACROSS THE 4" FACE TO MAKE 2 STAKES FROM EACH LENGTH.
- TIP SHOULD HAVE A 3-6mm WIDTH.
- PLACE STAKES 500-700mm APART AND DRIVE FLUSH WITH SOIL.
- FOLD BACK AND OVERLAP EACH ROLL END/EDGE 300mm WITH NEXT ROLL. STAKE BOTH LAYERS SECURELY TO GROUND.
- DO NOT STRETCH COIR FABRIC
- FINISH GRADE DISTURBED AREAS FLAT AND SMOOTH, HYDROSEED WITH APPROVED SEED MIXTURE, APPLY STRAW MULCH, 100mm SEGMENTS, TO MIN. 40mm DEPTH, COVER WITH COIR MAT 700 BY TERRAFIX, OR EQUAL
- UNROLL AND LAY COIR IN DIRECTION OF WATER FLOW OVERLAP.
- SECURE COIR AT TOP OF SLOPE BY TOEING IN AT MIN 150mm DEEP, REINFORCE WITH DEAD STAKES APPROX. 250mm O.C.
- AT BOTTOM OF SLOPE, FOLD UNDER AT 150mm, AND REPEAT TOEING AND STAKING.



COIR EROSION MAT DETAIL

SCALE 1 : 50

GENERAL DETAIL NOTES - TO BE CONSULTED AND UNDERSTOOD BY CONTRACTOR PRIOR TO CONSTRUCTION

MATERIALS:

- ALL LIVE STAKE CUTTINGS TO BE OF NATIVE MATERIAL- WILLOW, DOGWOOD OR AS PROJECT SPECIFIED. SPECIES: PREFERABLY LOCALLY AVAILABLE

NATIVE SPECIES RESTRICTED TO:
1. CORNUS RACEMOSA (GREY DOGWOOD)
2. SALIX EXIGUA (SANDBAR WILOW)
3. SALIX DISCOLOR (PUSSY WILLOW)

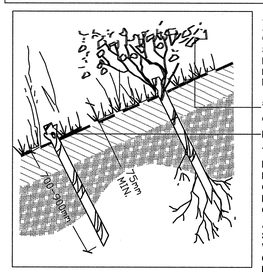
- CUTTINGS MUST BE ALIVE AND IN GOOD HEALTH WITH SIDE BRANCHES CLEANLY REMOVED, AND BARK INTACT.
- CLEANLY CUT LARGER OR THICKER BUTT ENDS AT 45 DEGREE ANGLE FOR EASIER INSERTION INTO SOIL
- ENSURE TOP OF STAKE IS CUT SQUARE FOR TAMPING.
- ENSURE STAKE CUTTING HAS AT LEAST 3 BUD SCARS NEAR TOP END TO ALLOW FOR BRANCH DEVELOPMENT.

TIMING:

- ALL LIVE STAKE CUTTINGS TO BE OF NATIVE MATERIAL WILLOW, DOGWOOD, OR AS PROJECT SPECIFIED.
- TO BE INSTALLED DURING THE DORMANT SEASON ONLY, AT LOW WATER LEVELS.
- TO BE KEPT MOIST IN SHADED AREA, AND PLACED IN SOIL WITHIN 24 HOURS OF CUTTING.

SIZES:

- STAKE TO BE 25-50mm DIAMETER
- STAKE TO BE OF 700-900mm LENGTH



SIZES:
ALL STAKES TO BE INSTALLED AT 500-700mm O.C. UNLESS OTHERWISE SPECIFIED. ENSURE THAT 2/3 OF THE LIVE STAKES TO BE INSTALLED, ARE AT THE BANK FULL MARK OR LOWER SECTION, OF THE NEWLY GRADED BANK SLOPE. REMAINING 1/3 OF LIVE STAKES TO BE INSTALLED AT UPPER LEVEL IN CONJUNCTION WITH REMAINING DEAD STAKES .

INSTALLATION:
VEGETATION GROWTH IS NOT INDICATIVE OF CONDITION AT TIME OF INSTALLATION

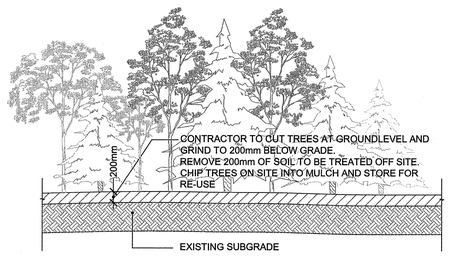
DORMANT LIVE STAKE 25-50mm DIA.; WITH ANGLE CUT BASE AND BLUNT CUT TOP

BEGINNING AT 150mm ABOVE LOW FLOW WATER LEVEL - OR BASE OF SLOPE APPLICATION AREA - TAMP ANGLE CUT END OF STAKE INTO SOIL AT, OR NEAR RIGHT ANGLE TO SLOPE. DO NOT SPLIT STAKE WHILE TAMPING . ENSURE 3/4 TO 4/5 OF LENGTH IS EMBEDDED INTO THE SOIL .

ALLOW 75mm OF THE BLUNT END TO EXTEND ABOVE THE SOIL SURFACE. TAMP TOPSOIL FIRMLY AROUND BASE OF STAKE. WATER ENTIRE OPERATION THOROUGHLY UPON COMPLETION OF INSTALLATION. IF PROJECT SPECIFIED, COMBINE LIVE AND DEAD STAKES IN PERCENTAGES NOTED, AND INSTALL AT 600-900mm O.C. TYPICAL FOR ALL TREATMENTS WHERE STAKE CUTTINGS ARE SPECIFIED.

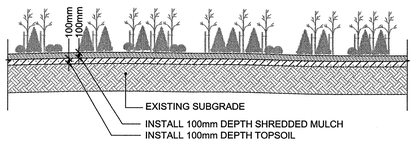
LIVE STAKES DETAIL

SCALE 1 : 25



SOIL REMOVAL CROSS SECTION

SCALE 1 : 50



TOPSOIL AND MULCH INSTALLION CROSS SECTION

SCALE 1 : 50

PLANT LIST - AREAS 'A' TO 'F'

KEY	AREA 'A'	AREA 'B'	AREA 'C'	AREA 'D'	AREA 'E'	AREA 'F'	TOTAL	BOTANICAL NAME	COMMON NAME	CAL.	HEIGHT	SPREAD	SPACE	COND.
DECIDUOUS TREES														
As	10	10	35	15	5	-	75	Acer saccharum	Sugar Maple	-	1500mm	-	3000mm	CG
Jn	25	30	45	20	-	-	120	Juglans nigra	Black Walnut	-	1500mm	-	3000mm	CG
Pse	10	10	15	-	-	-	35	Prunus serotina	Black Cherry	-	1500mm	-	3000mm	CG
Pgr	-	-	-	-	10	-	10	Populus grandidentata	Largetooth Aspen		1500mm		3000mm	CG
Sn	15	20	-	-	-	-	35	Salix nigra	Black Willow	-	1500mm	-	3000mm	CG
Qr	5	5	20	-	5	-	35	Quercus rubra	Red Oak	-	1500mm	-	3000mm	CG
Total	**65**	**75**	**115**	**35**	**20**	**-**	**310**							
CONIFEROUS TREES														
Pst	10	15	20	30	-	-	75	Pinus strobus	Eastern White Pine	-	1250mm	-	3000mm	CG
Psl	-	-	-	15	-	-	15	Pinus sylvestris	Scots Pine	-	1250mm	-	3000mm	CG
Pg	10	15	15	40	-	-	80	Picea glauca	White Spruce	-	1250mm	-	3000mm	CG
Pg1	8	12	-	-	-	-	20	Picea glauca	White Spruce	-	3000mm	-	6000mm	CG
Tc	-	-	15	30	-	-	45	Tsuga canadensis	Eastern Hemlock	-	1250mm	-	3000mm	CG
Total	**28**	**42**	**50**	**115**	**-**	**-**	**235**							
SHRUBS														
ca	30	30	-	35	-	-	95	Cornus alternifolia	Alternate Leaved Dogwood	-	600mm	-	1000mm	CG
cs	20	20	-	-	-	-	40	Cornus sericea	Red Osier Dogwood	-	600mm	-	1000mm	CG
sc	-	-	30	-	-	-	30	Sambucus canadensis	American Elder	-	600mm	-	1000mm	CG
sd	10	10	-	-	-	-	20	Salix discolor	Pussy Willow	-	600mm	-	1000mm	CG
vt	-	-	30	-	-	-	30	Viburnum trilobum	High-Bush Cranberry	-	600mm	-	1000mm	CG
ro	-	-	20	-	-	-	20	Rubus odoratus	Purple Flowering Raspberry	-	600mm	-	1000mm	CG
Total	**60**	**60**	**80**	**35**	**-**	**-**	**235**							

LIVE STAKES (Along Creek bank only)							
BOTANICAL NAME	COMMON NAME	SIZE	SPACE	TOTAL	LS-1	LS-2	LS-3
Cornus sericea	Red Osier Dogwood	700-900mm Long	500-700mm	**105**	40	40	25
Salix discolor	Pussy Willow	700-900mm Long	500-700mm	**105**	40	40	25
Salix exigua	Sandbar Willow	700-900mm Long	500-700mm	**20**	10	-	10

LANDSCAPE SPECIFICATIONS

DELIVERY AND INSPECTION

- SPRAY ALL PLANT MATERIAL WITH ANTI DESICCANT PRIOR TO TRANSPORT.
- KEEP ALL ROOTS AND ROOTBALLS MOIST PRIOR TO PLANTING.
- OBTAIN LANDSCAPE ARCHITECT'S APPROVAL ON ALL PLANT MATERIAL AT SOURCE OR UPON DELIVERY, PRIOR TO COMMENCEMENT OF PLANTING WORK.
- APPROVAL OF PLANT MATERIAL PRIOR TO PLANTING SHALL NOT IMPAIR THE RIGHT OF THE LANDSCAPE ARCHITECT TO REJECT PLANTS AFTER PLANTING, WHICH HAVE BEEN DAMAGED, OR WHICH IN ANY WAY DO NOT CONFORM TO THE SPECIFICATIONS. SUBSTITUTIONS OF SIZE, OR WITH OTHER PLANT MATERIAL WILL ONLY BE ALLOWED WITH THE WRITTEN APPROVAL OF THE CONSULTANT.
- ALL MATERIAL MUST CONFORM TO THE SIZES SHOWN ON THE PLANT LIST, EXCEPT WHERE LARGER PLANT MATERIAL IS USED WHEN APPROVED BY THE CONSULTANT. USE OF LARGER PLANTS WILL NOT INCREASE THE CONTRACT PRICE. UNDERSIZED MATERIAL WILL BE REJECTED.
- ALL SHRUBS AND TREES SHALL CONFORM TO THE PRESENT STANDARDS OF THE CANADIAN NURSERY TRADES ASSOCIATION FOR SIZE AND SPECIES.
- PLANTS ARE TO BE NURSERY GROWN UNDER PROPER CULTURAL CONDITIONS, IN PARTICULAR WITH RESPECT TO SPACING, PEST AND DISEASE CONTROL, AND BRANCH AND ROOT PRUNING.
- TREES ARE TO HAVE STRAIGHT STURDY TRUNKS.
- TREES SHALL BE WELL BRANCHED AND BALANCED WITH A STRONG CENTRAL LEADER.
- DECIDUOUS SHADE TREES SHALL BE FREE OF BRANCHES NOT LESS THAN 1.8m ABOVE THE GROUND.

GUARANTEE AND FINAL INSPECTION

- AT THE COMPLETION OF PLANTING OPERATIONS, REMOVE ALL SURPLUS MATERIAL FROM THE SITE AT NO EXTRA COST.
- MAKE GOOD ALL DAMAGE RESULTING FROM PLANTING OPERATIONS AT NO EXTRA COST. PLANT MATERIAL SHALL BE GUARANTEED FOR A MINIMUM OF TWO YEARS FROM THE ISSUE DATE OF THE CERTIFICATE OF TOTAL PERFORMANCE.
- ALL PLANTS SHALL BE INSPECTED AT THE END OF THE GUARANTEE PERIOD. PLANTS WHICH, AT THAT TIME, ARE NOT IN HEALTHY VIGOROUS GROWING CONDITION, TO THE CONSULTANT'S APPROVAL, SHALL BE REPLACED AT NO EXTRA CHARGE.

PREPARATION AND INSTALLATION

- PREPARE PLANTING BEDS PRIOR TO ARRIVAL OF PLANT MATERIAL ON SITE.
- EXCAVATE PER PLANTING DETAILS.
- PREPARE PLANTING SOIL BY EVENLY MIXING:

PLANTING SOIL

- TO BE A MIXTURE OF:
- 6 PARTS GOOD QUALITY TOPSOIL
- 2 PARTS WELL ROTTED HORSE OR COW MANURE
- 1 PART PEAT MOSS
- 0.58 KILOS BONE MEAL PER CUBIC METRE OF SOIL
- PLANTING SOIL IS TO BE THOROUGHLY MIXED TO ELIMINATE AIR POCKETS AND PREVENT SETTLEMENT.

PLANTING NOTES

- CONTRACTOR TO CHECK ALL QUANTITIES.
- REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
- THE QUANTITIES INDICATED ON THE PLAN SUPERSEDE THE TOTALS OF THE PLANT LIST.
- THE LAYOUT OF ALL PLANT MATERIAL IS TO BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.
- CONTRACTOR TO PROVIDE 100mm DEPTH TOPSOIL AND 100mm DEPTH SHREDDED MULCH FROM CHIPPED TREES ON ALL AREAS WHERE 200mm OF SOIL HAS BEEN REMOVED FOR REMEDIATION.

TOPSOIL

- USE EVENLY MIXED TOPSOIL OF FERTILE, FRIABLE NATURAL LOAM CONTAINING NOT LESS THAN 4% ORGANIC MATTER FOR CLAY LOAM'S AND 2% MINIMUM ORGANIC MATTER FOR SANDY LOAM'S WITH AN ACIDITY RANGE OF 5.5 TO 7.5 pH, TO 150mm DEPTH IN AREAS DESIGNATED FOR HDYROSEEDING AND 100mm FOR AREAS DESIGNATED FOR PLANTING.
- ALL TOPSOIL SHALL BE STRIPPED TO 200mm BELOW GRADE AND DISPOSED OF OFF-SITE. TOPSOIL SHALL NOT BE USED TO CONSTRUCT PERMANENT BERMS. NEW TOPSOIL SHALL CONFORM TO SPECIFICATIONS HEREIN.
- ALL TOPSOIL SHOULD BE FREE OF SUBSOILS, CLAY STONES, ROOTS, EXCESS WATER, FROST AND OTHER EXTRANEOUS MATTER.

UTILITIES

- CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES ON THE SITE. CONTRACTOR MUST CHECK & VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB,
- REPORTING ALL DISCREPANCIES TO THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING SERVICES WHEN EXCAVATING.

GENERAL NOTES:

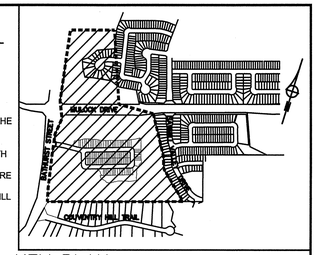
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT. PROPERTY LINES TO BE VERIFIED PRIOR TO INITIATING ANY CONSTRUCTION.
- REFER TO ENGINEERING DRAWINGS FOR GRADING, SITE SERVICING.
- ALL CONSTRUCTION TO BE CARRIED OUT IN ACCORDANCE WITH THE MOST CURRENT DESIGN STANDARDS, CRITERIA AND SPECIFICATIONS OF THE MUNICIPALITY.
- CONTRACTOR TO MAKE GOOD ALL DAMAGED AREAS TO LANDSCAPE ARCHITECT'S APPROVAL.
- CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING UTILITIES AND SERVICES, PRIOR TO START OF CONSTRUCTION, CONTRACTOR TO INSTALL AND MAINTAIN SILT FENCING.
- LAYOUT OF TREES TO BE STAKED BY CONTRACTOR, AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE TREES. ANY IMPORTED TOPSOIL TO CONFORM TO CITY GUIDELINES.
- PLANTING SHALL BE CARRIED OUT IN ACCORDANCE WITH CITY'S GUIDELINES AND DETAIL DRAWINGS. PLANTS SHALL BE TRUE TO NAME, SIZE AND ROOT CONDITIONS AND CONFORM TO THE STANDARDS OF THE CANADIAN NURSERY TRADES ASSOCIATION.
- ALL PLANTING BEDS TO BE CONTINUOUS TYP. (GROUPINGS OF SHRUBS AND CONIFEROUS TREES).
- CONTRACTOR TO PROVIDE 100mm DEPTH TOPSOIL AND 100mm DEPTH MULCH FROM CHIPPED TREES ON ALL AREAS WHERE 200mm OF SOIL HAS BEEN REMOVED FOR REMEDIATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING ALL UTILITIES ON SITE PRIOR TO ANY EXCAVATION OR INSTALLATION OF PLANT MATERIAL. THE CONTRACTOR SHALL CONTACT THE CONSULTANT OF ANY POTENTIAL CONFLICTS BETWEEN EXISTING AND PROPOSED UTILITIES. ANY DAMAGE TO UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

ACCESS ROADS

- REMOVE TOPSOIL, SUPPLY, PLACE, GRADE AND COMPACT TO 300mm DEPTH GRANULAR 'A'
- AT END OF REMEDIATION ACTIVITIES REMOVE AND DISPOSE OF 300mm DEPTH GRANULAR 'A'
- INSTALL MIN. 300mm DEPTH TOPSOIL AND HYDROSEED WITH UPLAND SEED MIX (TYPE 'A')

LIVE STAKES (DORMANT SEASON ONLY)

- EXACT QUANTITIES REQUIRED FOR LIVE STAKES IN COIR MAT LOCATIONS FOR THE PROJECT WILL BE SUPPLIED AS PER THE SPACING NOTED IN THE APPROPRIATE CONSTRUCTION DETAILS - QUANTITIES OF LIVE STAKES REQUIRED WILL NOT BE PRICED FOR THE CONTRACT ON AN INDIVIDUAL BASIS, BUT WILL BE INCLUDED AS PART OF THE SQUARE METER COST ASSOCIATED WITH THE STABILIZATION TREATMENT SPECIFIED
- CONTRACTOR RESPONSIBLE FOR SOURCING SUPPLY OF LIVE STAKES, AND TO ENSURE INSTALLATION WITHIN 24 HOURS OF CUTTING - AND TREATED WITH RAPID GROWTH HORMONE. STAKES TO BE AS PER TYPICAL DETAIL.



KEY PLAN
NTS

HYDROSEEDING NOTES

SEEDING NOTES

1. PREPARE THE SEED BED. SURVEY THE SITE FOR INVASIVE SPECIES AND REMOVE. CLEAN AWAY SURFACE DEBRIS. THIS INCREASES SUNLIGHT PENETRATION TO THE SOIL SURFACE AND EASES SOWING. LIGHTLY CULTIVATE THE SOIL TO ACCEPT SEED AND IMPROVE AERATION AND WATER RETENTION.
2. SEED TAGS ARE TO BE PROVIDED TO THE CONTRACT ADMINISTRATOR BEFORE PAYMENT MAYBE PROCESSED. ALL DISTURBED AREAS WITHIN RESTORATION ZONES
3. ALL ACCESS ROADS DESIGNATED FOR HYDROSEEDEDING SHALL BE STRIPPED OF AGGREGATE USED DURING REMEDIATION AND TO BE FINE GRADED PRIOR TO SEEDING OPERATIONS.
4. CONTRACTOR TO SUPPLY AND INSTALL 'TERRASEED WITH MICROBLEND (TM) AND SEED TYPE 'A' OR 'B' ON ALL DISTURBED AREAS NOT DESIGNATED FOR PLANTINGS. APPLICATION DEPTH FOR DECOMPOSED TOPSOIL AND SEED TO BE MINIMUM 20mm DEPTH. INCLUDE ANNUAL RYE GRASS AS A NURSE CROP AT 30ka/ha FOR BOTH TYPE 'A' AND TYPE 'B' SEEDING.

TYPE A: - UPLAND SEED MIX
SEED MIXTURE IS COMPOSED OF:

50% - SWITCHGRASS (PANICUM VIRGATUM)
40% - CANADA WILD RYE (ELYMUS CANADENSIS)
9% - CANADA GOLDENROD (SOLIDAGO CANADENSIS)
1% - ASTER (SYMPHYOTRICHUM NOVAE ANGLIAE)

SEEDING RATE
ALL SEEDING RATES: AS PER MANUFACTURERS RECOMMENDATIONS OR 25/KG PER HECTARE.

TYPE B: - LOWLAND SEED MIX
SEED MIXTURE IS COMPOSED OF:

10% - FOWL MANNAGRASS (GLYCERIA STRIATA)
36% - RIVERBANK WILD RYE (ELYMUS RIPARIUS)
25% - FOX SEDGE (CAREX VULPINOIDEA)
25% - SWAMP DOCK (RUMEX BROWNII)
2% - BEBBS SEDGE (CAREX BEBBII)
2% - WOOLGRASS (SCIRPUS CYPERINUS)

ALL SEEDING RATES: AS PER MANUFACTURERS RECOMMENDATIONS OR 25/kg PER HECTARE.

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
2	ISSUED FOR TENDER	LSN	JULY.13.2012	
1	ISSUED TO REGION OF YORK	PM	JULY.04.2012	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT
Cri·te'ri·on

MUNICIPALITY
TOWN OF NEWMARKET

PROJECT TITLE
SUMMERHILL WOODS

SHEET TITLE
DETAIL PLAN

MMM GROUP
100 Commerce Valley Dr. West
Thornhill, Ont. L3T 0A1
Tel (905) 882-1100
Fax (905) 882-0055
www.mmm.ca

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — Lorrie Sham Nunnington — July 2012 — OALA MEMBER

ACCEPTED

DIRECTOR OF PUBLIC WORKS & ENVIRONMENTAL SERVICES

DATE

DESIGNED	DRAWN	CHECKED
TN	TN	LSN

SCALE	DATE
AS SHOWN	JULY 2008

PROJECT NUMBER	DWG. NUMBER
10-05015	LA-2

FILENAME: J:\JOBS\LANDSCAPE\2005\10-05015-014-ENI Criterion_Summerhill\Drawing\Submissions\Issued for Tender\LA1-2 (Tender).dwg
PLOTDATE: Jul 24, 2012 - 11:22am

A-3
SAMPLING AND ANALYSIS PLAN

Table 1: Phase II ESA Sampling and Analysis Plan: Summerhill Woods

Primary Objectives and Questions to be Answered

1) to verify that removal of contaminate soil results in acceptable concentrations of contaminants in remaining soil

2) Collect data to support the conclusion that the site has been remediated.

Figure ID	Media	Potential Contaminants of Concern	Metals & Inorganics	OC/OP Pesticides		Purpose and Justification	General Instructions
						Based on the results of work completed by MMM and RJ Burnside, high concentrations of arsenic and lead were found in surface soils the following areas: • **Area A:** Comprised of 889 m2 on the northern forested lands. • **Area B:** Comprised of 1159 m2 on the northern forested lands. • **Area C:** Comprised of 1311 m2 on Criterion owned lands north of Mulock. • **Area D:** Comprised of 915 m2 on Town owned lands north of Mulock. • **Area E:** Comprised of 98 m2 on Town owned lands south of Mulock. • **Area F:** Comprised of 8.5 m2 on Town owned lands along trail south of Mulock. The topsoil in these areas will be stripped 20 cm (30 cm in Area C) and disposed of offsite.	Review SOPs for soil sampling prior to commencement of field activities. Unless otherwise specified, adhere to the following general instructions: GENERAL • Document field conditions, observations, and notes in the field log book and take photographs. Collect verification soil samples in a systematic manner around the floor and sidewalls of the excavation. Number of samples is based on Table 3 of Schedule E Phase Two Environmental Site Assessments in Ontario Regulation 153/04 as amended. For areas larger than 1000m2, one sample for floor was added. Because the sidewalls are shallow, no addiitonal sidewall samples were added. Samples will be submitted on Rush TAT (fastest is 72hrs for OC/OP Pesticides) to Maxxam. Jar soils onsite to minimize the movement of soil material.
Area A						Areas A-F are to be stripped 20 cm (30 cm in Area C) and verification soil grab samples are to be taken along the sidewalls and floor. These areas were found to contain high concentrations of arsenic and lead in the surface soils.	Special Instructions
	soil	MI, OC/OP	13	4			Collect 5 floor and 8 sidewall samples with all samples for MI, 2 floor and 2 sidewall samples for OC/OP.
Area B							Special Instructions
	soil	MI, OC/OP	14	4			Collect 6 floor and 8 sidewall samples with all samples for MI, 2 floor and 2 sidewall samples for OC/OP.
Area C							Special Instructions
	soil	MI, OC/OP	14	4			Collect 6 floor and 8 sidewall samples with all samples for MI, 2 floor and 2 sidewall samples for OC/OP.
Area D							Special Instructions
	soil	MI, OC/OP	13	4			Collect 5 floor and 8 sidewall samples with all samples for MI, 2 floor and 2 sidewall samples for OC/OP.
Area E							Special Instructions
	soil	MI, OC/OP	6	2			Collect 3 floor and 3 sidewall samples with all samples for MI, 1 floor and 1 sidewall sample for OC/OP.
Area F							Special Instructions
	soil	MI, OC/OP	4	1			Collect 2 floor and 2 sidewall samples with all samples for MI, 1 floor sample for OC/OP.
Backfill material							
	soil	MI, OC/OP	5	2			Collect one composite sample for laboratory analysis.
SUBTOTAL							
Quality Assurance/Quality Control							
Field Duplicate	Soil for FD		7	2		Field duplicates will be collected at a rate of 10%	
TOTAL LABORATORY SAMPLES (SOIL)			76	23	0		

A-4
CERTIFICATES OF ANALYSIS

Your Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A
Your C.O.C. #: C#379330, C#379330-01-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/10/30

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2G6842
Received: 2012/10/25, 13:54

Sample Matrix: Soil
Samples Received: 13

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	6	2012/10/29	2012/10/29	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	4	2012/10/30	2012/10/30	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	6	2012/10/29	2012/10/30	CAM SOP-00447	EPA 6020
Acid Extr. Metals (aqua regia) by ICPMS	4	2012/10/30	2012/10/30	CAM SOP-00447	EPA 6020
Moisture	3	N/A	2012/10/26	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	3	2012/10/26	2012/10/29	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B2G6842
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PJ0254	PJ0255	PJ0258		
Sampling Date		2012/10/24 15:00	2012/10/24 15:00	2012/10/24 15:00		
COC Number		C#379330-01-01	C#379330-01-01	C#379330-01-01		
	Units	**A-W-1A**	**A-W-1B**	**A-FL-1A**	**RDL**	**QC Batch**
Inorganics						
Moisture	%	24	27	18	1.0	3016502

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2G6842
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ0246		PJ0247	PJ0248		
Sampling Date			2012/10/24 14:00		2012/10/24 14:00	2012/10/24 14:00		
COC Number			C#379330-01-01		C#379330-01-01	C#379330-01-01		
	Units	**Criteria**	**A-W-1**	**QC Batch**	**A-W-2**	**A-W-3**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.15	3018146	0.29	0.40	0.050	3018891
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	3018189	<0.20	0.48	0.20	3018889
Acid Extractable Arsenic (As)	ug/g	**18**	3.8	3018189	11	**40**	1.0	3018889
Acid Extractable Barium (Ba)	ug/g	**220**	18	3018189	43	43	0.50	3018889
Acid Extractable Beryllium (Be)	ug/g	**2.5**	<0.20	3018189	0.21	0.32	0.20	3018889
Acid Extractable Boron (B)	ug/g	**36**	<5.0	3018189	<5.0	<5.0	5.0	3018889
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	3018189	0.11	0.21	0.10	3018889
Acid Extractable Chromium (Cr)	ug/g	**70**	6.0	3018189	11	13	1.0	3018889
Acid Extractable Cobalt (Co)	ug/g	**21**	2.2	3018189	4.2	4.4	0.10	3018889
Acid Extractable Copper (Cu)	ug/g	**92**	4.5	3018189	12	16	0.50	3018889
Acid Extractable Lead (Pb)	ug/g	**120**	6.3	3018189	46	**130**	1.0	3018889
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	3018189	<0.50	<0.50	0.50	3018889
Acid Extractable Nickel (Ni)	ug/g	**82**	3.7	3018189	6.9	7.1	0.50	3018889
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	3018189	<0.50	<0.50	0.50	3018889
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	3018189	<0.20	<0.20	0.20	3018889
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	3018189	0.061	0.081	0.050	3018889
Acid Extractable Uranium (U)	ug/g	**2.5**	0.28	3018189	0.34	0.41	0.050	3018889
Acid Extractable Vanadium (V)	ug/g	**86**	15	3018189	21	25	5.0	3018889
Acid Extractable Zinc (Zn)	ug/g	**290**	14	3018189	42	36	5.0	3018889

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G6842
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ0249	PJ0250	PJ0251	PJ0252		
Sampling Date			2012/10/24 14:00	2012/10/24 14:30	2012/10/24 14:30	2012/10/24 14:30		
COC Number			C#379330-01-01	C#379330-01-01	C#379330-01-01	C#379330-01-01		
	Units	**Criteria**	**A-W-4**	**A-W-5**	**A-W-6**	**A-W-7**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.89	0.66	0.73	0.78	0.050	3018146
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.53	**1.4**	0.36	0.39	0.20	3018189
Acid Extractable Arsenic (As)	ug/g	**18**	**33**	**110**	**23**	**23**	1.0	3018189
Acid Extractable Barium (Ba)	ug/g	**220**	40	55	36	39	0.50	3018189
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.29	0.36	0.32	0.29	0.20	3018189
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	3018189
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.18	0.28	0.16	0.19	0.10	3018189
Acid Extractable Chromium (Cr)	ug/g	**70**	12	15	11	12	1.0	3018189
Acid Extractable Cobalt (Co)	ug/g	**21**	4.4	5.8	3.8	3.9	0.10	3018189
Acid Extractable Copper (Cu)	ug/g	**92**	17	48	15	16	0.50	3018189
Acid Extractable Lead (Pb)	ug/g	**120**	110	**270**	80	68	1.0	3018189
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	3018189
Acid Extractable Nickel (Ni)	ug/g	**82**	7.3	10	6.6	6.2	0.50	3018189
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.69	0.50	3018189
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	3018189
Acid Extractable Thallium (Tl)	ug/g	**1**	0.081	0.13	0.060	0.059	0.050	3018189
Acid Extractable Uranium (U)	ug/g	**2.5**	0.39	0.35	0.36	0.32	0.050	3018189
Acid Extractable Vanadium (V)	ug/g	**86**	25	28	24	23	5.0	3018189
Acid Extractable Zinc (Zn)	ug/g	**290**	29	52	26	27	5.0	3018189

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G6842
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ0253		PJ0256		
Sampling Date			2012/10/24 14:30		2012/10/24 15:00		
COC Number			C#379330-01-01		C#379330-01-01		
	Units	**Criteria**	**A-W-8**	**QC Batch**	**A-FL-1**	**RDL**	**QC Batch**
Metals							
Hot Water Ext. Boron (B)	ug/g	**-**	0.38	3018891	0.47	0.050	3018146
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	3018889	0.36	0.20	3018189
Acid Extractable Arsenic (As)	ug/g	**18**	8.1	3018889	**23**	1.0	3018189
Acid Extractable Barium (Ba)	ug/g	**220**	36	3018889	39	0.50	3018189
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.21	3018889	0.35	0.20	3018189
Acid Extractable Boron (B)	ug/g	**36**	<5.0	3018889	<5.0	5.0	3018189
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.12	3018889	0.16	0.10	3018189
Acid Extractable Chromium (Cr)	ug/g	**70**	8.7	3018889	12	1.0	3018189
Acid Extractable Cobalt (Co)	ug/g	**21**	2.9	3018889	4.1	0.10	3018189
Acid Extractable Copper (Cu)	ug/g	**92**	7.8	3018889	14	0.50	3018189
Acid Extractable Lead (Pb)	ug/g	**120**	27	3018889	74	1.0	3018189
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	3018889	<0.50	0.50	3018189
Acid Extractable Nickel (Ni)	ug/g	**82**	5.0	3018889	7.2	0.50	3018189
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	3018889	<0.50	0.50	3018189
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	3018889	<0.20	0.20	3018189
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	3018889	0.064	0.050	3018189
Acid Extractable Uranium (U)	ug/g	**2.5**	0.31	3018889	0.36	0.050	3018189
Acid Extractable Vanadium (V)	ug/g	**86**	19	3018889	25	5.0	3018189
Acid Extractable Zinc (Zn)	ug/g	**290**	30	3018889	28	5.0	3018189

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G6842
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ0257		
Sampling Date			2012/10/24 15:00		
COC Number			C#379330-01-01		
	Units	**Criteria**	**A-FL-2**	**RDL**	**QC Batch**
Metals					
Hot Water Ext. Boron (B)	ug/g	-	0.26	0.050	3018891
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.23	0.20	3018889
Acid Extractable Arsenic (As)	ug/g	**18**	5.8	1.0	3018889
Acid Extractable Barium (Ba)	ug/g	**220**	45	0.50	3018889
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.28	0.20	3018889
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5.0	3018889
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.18	0.10	3018889
Acid Extractable Chromium (Cr)	ug/g	**70**	14	1.0	3018889
Acid Extractable Cobalt (Co)	ug/g	**21**	4.4	0.10	3018889
Acid Extractable Copper (Cu)	ug/g	**92**	8.4	0.50	3018889
Acid Extractable Lead (Pb)	ug/g	**120**	14	1.0	3018889
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	0.50	3018889
Acid Extractable Nickel (Ni)	ug/g	**82**	6.7	0.50	3018889
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	0.50	3018889
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	0.20	3018889
Acid Extractable Thallium (Tl)	ug/g	**1**	0.063	0.050	3018889
Acid Extractable Uranium (U)	ug/g	**2.5**	0.38	0.050	3018889
Acid Extractable Vanadium (V)	ug/g	**86**	25	5.0	3018889
Acid Extractable Zinc (Zn)	ug/g	**290**	28	5.0	3018889

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2G6842
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ0254	PJ0255	PJ0258		
Sampling Date			2012/10/24 15:00	2012/10/24 15:00	2012/10/24 15:00		
COC Number			C#379330-01-01	C#379330-01-01	C#379330-01-01		
	Units	**Criteria**	**A-W-1A**	**A-W-1B**	**A-FL-1A**	**RDL**	**QC Batch**
Pesticides & Herbicides							
Aldrin	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
a-Chlordane	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
g-Chlordane	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Chlordane (Total)	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
o,p-DDD	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
p,p-DDD	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0020	<0.0020	<0.0020	0.0020	3015903
o,p-DDE	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
p,p-DDE	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
o,p-DDE + p,p-DDE	ug/g	**-**	<0.0020	<0.0020	<0.0020	0.0020	3015903
o,p-DDT	ug/g	**1.4**	<0.0020	<0.0020	<0.0020	0.0020	3015903
p,p-DDT	ug/g	**1.4**	<0.0020	<0.0020	0.0020	0.0020	3015903
o,p-DDT + p,p-DDT	ug/g	**-**	<0.0020	<0.0020	0.0020	0.0020	3015903
Dieldrin	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Lindane	ug/g	**0.01**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Endosulfan I (alpha)	ug/g	**0.04**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Endosulfan II	ug/g	**0.04**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Total Endosulfan	ug/g	**-**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Endrin	ug/g	**0.04**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Heptachlor	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Heptachlor epoxide	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Hexachlorobenzene	ug/g	**0.01**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Hexachlorobutadiene	ug/g	**0.01**	<0.0050	<0.0050	<0.0050	0.0050	3015903
Hexachloroethane	ug/g	**0.01**	<0.0050	<0.0050	<0.0050	0.0050	3015903
Methoxychlor	ug/g	**0.05**	<0.0050	<0.0050	<0.0050	0.0050	3015903
Aroclor 1242	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3015903
Aroclor 1248	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3015903
Aroclor 1254	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3015903
Aroclor 1260	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3015903
Total PCB	ug/g	**0.3**	<0.015	<0.015	<0.015	0.015	3015903

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G6842
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ0254	PJ0255	PJ0258		
Sampling Date			2012/10/24 15:00	2012/10/24 15:00	2012/10/24 15:00		
COC Number			C#379330-01-01	C#379330-01-01	C#379330-01-01		
	Units	**Criteria**	**A-W-1A**	**A-W-1B**	**A-FL-1A**	**RDL**	**QC Batch**
Surrogate Recovery (%)							
2,4,5,6-Tetrachloro-m-xylene	%	-	87	98	86		3015903
Decachlorobiphenyl	%	-	64	81	75		3015903

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G6842
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

Package 1	2.7°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report

Maxxam Job Number: MB2G6842

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3015903	MAK	Matrix Spike						
		[PJ0254-01]	2,4,5,6-Tetrachloro-m-xylene	2012/10/29		91	%	50 - 130
			Decachlorobiphenyl	2012/10/29		84	%	50 - 130
			Aldrin	2012/10/29		92	%	50 - 130
			a-Chlordane	2012/10/29		90	%	50 - 130
			g-Chlordane	2012/10/29		92	%	50 - 130
			o,p-DDD	2012/10/29		92	%	50 - 130
			p,p-DDD	2012/10/29		92	%	50 - 130
			o,p-DDE	2012/10/29		92	%	50 - 130
			p,p-DDE	2012/10/29		90	%	50 - 130
			o,p-DDT	2012/10/29		104	%	50 - 130
			p,p-DDT	2012/10/29		75	%	50 - 130
			Dieldrin	2012/10/29		89	%	50 - 130
			Lindane	2012/10/29		87	%	50 - 130
			Endosulfan I (alpha)	2012/10/29		73	%	50 - 130
			Endosulfan II	2012/10/29		120	%	50 - 130
			Endrin	2012/10/29		99	%	50 - 130
			Heptachlor	2012/10/29		96	%	50 - 130
			Heptachlor epoxide	2012/10/29		85	%	50 - 130
			Hexachlorobenzene	2012/10/29		89	%	50 - 130
			Hexachlorobutadiene	2012/10/29		78	%	50 - 130
			Hexachloroethane	2012/10/29		76	%	50 - 130
			Methoxychlor	2012/10/29		86	%	50 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/29		93	%	50 - 130
			Decachlorobiphenyl	2012/10/29		74	%	50 - 130
			Aldrin	2012/10/29		89	%	50 - 130
			a-Chlordane	2012/10/29		82	%	50 - 130
			g-Chlordane	2012/10/29		69	%	50 - 130
			o,p-DDD	2012/10/29		66	%	50 - 130
			p,p-DDD	2012/10/29		67	%	50 - 130
			o,p-DDE	2012/10/29		92	%	50 - 130
			p,p-DDE	2012/10/29		86	%	50 - 130
			o,p-DDT	2012/10/29		98	%	50 - 130
			p,p-DDT	2012/10/29		86	%	50 - 130
			Dieldrin	2012/10/29		67	%	50 - 130
			Lindane	2012/10/29		66	%	50 - 130
			Endosulfan I (alpha)	2012/10/29		55	%	50 - 130
			Endosulfan II	2012/10/29		57	%	50 - 130
			Endrin	2012/10/29		71	%	50 - 130
			Heptachlor	2012/10/29		96	%	50 - 130
			Heptachlor epoxide	2012/10/29		66	%	50 - 130
			Hexachlorobenzene	2012/10/29		82	%	50 - 130
			Hexachlorobutadiene	2012/10/29		92	%	50 - 130
			Hexachloroethane	2012/10/29		98	%	50 - 130
			Methoxychlor	2012/10/29		72	%	50 - 130
		RPD	Aroclor 1242	2012/10/29	NC		%	40
			Total PCB	2012/10/29	NC		%	40
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/29		88	%	50 - 130
			Decachlorobiphenyl	2012/10/29		73	%	50 - 130
			Aldrin	2012/10/29	<0.0020		ug/g	
			a-Chlordane	2012/10/29	<0.0020		ug/g	
			g-Chlordane	2012/10/29	<0.0020		ug/g	
			Chlordane (Total)	2012/10/29	<0.0020		ug/g	
			o,p-DDD	2012/10/29	<0.0020		ug/g	
			p,p-DDD	2012/10/29	<0.0020		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6842

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3015903	MAK	Method Blank	o,p-DDD + p,p-DDD	2012/10/29	<0.0020		ug/g	
			o,p-DDE	2012/10/29	<0.0020		ug/g	
			p,p-DDE	2012/10/29	<0.0020		ug/g	
			o,p-DDE + p,p-DDE	2012/10/29	<0.0020		ug/g	
			o,p-DDT	2012/10/29	<0.0020		ug/g	
			p,p-DDT	2012/10/29	<0.0020		ug/g	
			o,p-DDT + p,p-DDT	2012/10/29	<0.0020		ug/g	
			Dieldrin	2012/10/29	<0.0020		ug/g	
			Lindane	2012/10/29	<0.0020		ug/g	
			Endosulfan I (alpha)	2012/10/29	<0.0020		ug/g	
			Endosulfan II	2012/10/29	<0.0020		ug/g	
			Total Endosulfan	2012/10/29	<0.0020		ug/g	
			Endrin	2012/10/29	<0.0020		ug/g	
			Heptachlor	2012/10/29	<0.0020		ug/g	
			Heptachlor epoxide	2012/10/29	<0.0020		ug/g	
			Hexachlorobenzene	2012/10/29	<0.0020		ug/g	
			Hexachlorobutadiene	2012/10/29	<0.0050		ug/g	
			Hexachloroethane	2012/10/29	<0.0050		ug/g	
			Methoxychlor	2012/10/29	<0.0050		ug/g	
			Aroclor 1242	2012/10/29	<0.015		ug/g	
			Aroclor 1248	2012/10/29	<0.015		ug/g	
			Aroclor 1254	2012/10/29	<0.015		ug/g	
			Aroclor 1260	2012/10/29	<0.015		ug/g	
			Total PCB	2012/10/29	<0.015		ug/g	
		RPD [PJ0254-01]	Aldrin	2012/10/29	NC		%	40
			a-Chlordane	2012/10/29	NC		%	40
			g-Chlordane	2012/10/29	NC		%	40
			Chlordane (Total)	2012/10/29	NC		%	40
			o,p-DDD	2012/10/29	NC		%	40
			p,p-DDD	2012/10/29	NC		%	40
			o,p-DDD + p,p-DDD	2012/10/29	NC		%	40
			o,p-DDE	2012/10/29	NC		%	40
			p,p-DDE	2012/10/29	NC		%	40
			o,p-DDE + p,p-DDE	2012/10/29	NC		%	40
			o,p-DDT	2012/10/29	NC		%	40
			p,p-DDT	2012/10/29	NC		%	40
			o,p-DDT + p,p-DDT	2012/10/29	NC		%	40
			Dieldrin	2012/10/29	NC		%	40
			Lindane	2012/10/29	NC		%	40
			Endosulfan I (alpha)	2012/10/29	NC		%	40
			Endosulfan II	2012/10/29	NC		%	40
			Total Endosulfan	2012/10/29	NC		%	40
			Endrin	2012/10/29	NC		%	40
			Heptachlor	2012/10/29	NC		%	40
			Heptachlor epoxide	2012/10/29	NC		%	40
			Hexachlorobenzene	2012/10/29	NC		%	40
			Hexachlorobutadiene	2012/10/29	NC		%	40
			Hexachloroethane	2012/10/29	NC		%	40
			Methoxychlor	2012/10/29	NC		%	40
			Aroclor 1242	2012/10/29	NC		%	40
			Aroclor 1248	2012/10/29	NC		%	40
			Aroclor 1254	2012/10/29	NC		%	40
			Aroclor 1260	2012/10/29	NC		%	40
			Total PCB	2012/10/29	NC		%	40
3016502	THT	RPD [PJ0258-01]	Moisture	2012/10/26	1.7		%	20

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6842

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3018146	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/10/29		98	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/10/29	<0.050		ug/g	
3018189	JBW	Matrix Spike	Acid Extractable Antimony (Sb)	2012/10/30		106	%	75 - 125
			Acid Extractable Arsenic (As)	2012/10/30		96	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/30		94	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/30		96	%	75 - 125
			Acid Extractable Boron (B)	2012/10/30		89	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/30		103	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/30		98	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/30		99	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/30		94	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/30		98	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/30		102	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/30		98	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/30		97	%	75 - 125
			Acid Extractable Silver (Ag)	2012/10/30		99	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/30		90	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/30		102	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/30		101	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/30		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/30		107	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/30		98	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/30		99	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/30		97	%	80 - 120
			Acid Extractable Boron (B)	2012/10/30		92	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/30		104	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/30		102	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/30		102	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/30		102	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/30		104	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/30		101	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/30		125 (1)	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/30		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/30		101	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/10/30		93	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/30		105	%	80 - 120
			Acid Extractable Vanadium (V)	2012/10/30		104	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/10/30		105	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/30	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/30	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/30	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/10/30	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/30	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/30	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/30	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/30	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/30	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/30	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/30	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/30	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/30	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/30	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/30	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/30	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/10/30	<5.0		ug/g	

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MMM Group Limited
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Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6842

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3018189	JBW	Method Blank	Acid Extractable Zinc (Zn)	2012/10/30	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/10/30	NC		%	30
			Acid Extractable Arsenic (As)	2012/10/30	NC		%	30
			Acid Extractable Barium (Ba)	2012/10/30	10.1		%	30
			Acid Extractable Beryllium (Be)	2012/10/30	NC		%	30
			Acid Extractable Boron (B)	2012/10/30	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/30	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/30	NC		%	30
			Acid Extractable Cobalt (Co)	2012/10/30	14.7		%	30
			Acid Extractable Copper (Cu)	2012/10/30	3.5		%	30
			Acid Extractable Lead (Pb)	2012/10/30	14.7		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/30	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/30	11.4		%	30
			Acid Extractable Selenium (Se)	2012/10/30	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/30	NC		%	30
			Acid Extractable Thallium (Tl)	2012/10/30	NC		%	30
			Acid Extractable Uranium (U)	2012/10/30	NC		%	30
			Acid Extractable Vanadium (V)	2012/10/30	NC		%	30
			Acid Extractable Zinc (Zn)	2012/10/30	12.6		%	30
3018889	JBW	Matrix Spike [PJ0247-01]	Acid Extractable Antimony (Sb)	2012/10/30		102	%	75 - 125
			Acid Extractable Arsenic (As)	2012/10/30		93	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/30		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/30		93	%	75 - 125
			Acid Extractable Boron (B)	2012/10/30		84	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/30		100	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/30		97	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/30		97	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/30		87	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/30		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/30		100	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/30		97	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/30		95	%	75 - 125
			Acid Extractable Silver (Ag)	2012/10/30		96	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/30		90	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/30		99	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/30		100	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/30		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/30		106	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/30		98	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/30		99	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/30		98	%	80 - 120
			Acid Extractable Boron (B)	2012/10/30		92	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/30		103	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/30		102	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/30		101	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/30		98	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/30		103	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/30		102	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/30		101	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/30		100	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/30		100	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/10/30		90	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/30		105	%	80 - 120
			Acid Extractable Vanadium (V)	2012/10/30		102	%	80 - 120

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6842

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3018889	JBW	Spiked Blank	Acid Extractable Zinc (Zn)	2012/10/30		105	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/30	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/30	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/30	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/10/30	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/30	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/30	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/30	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/30	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/30	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/30	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/30	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/30	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/30	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/30	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/30	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/30	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/10/30	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/10/30	<5.0		ug/g	
		RPD [PJ0247-01]	Acid Extractable Antimony (Sb)	2012/10/30	NC		%	30
			Acid Extractable Arsenic (As)	2012/10/30	5.9		%	30
			Acid Extractable Barium (Ba)	2012/10/30	6.2		%	30
			Acid Extractable Beryllium (Be)	2012/10/30	NC		%	30
			Acid Extractable Boron (B)	2012/10/30	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/30	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/30	1.7		%	30
			Acid Extractable Cobalt (Co)	2012/10/30	3.9		%	30
			Acid Extractable Copper (Cu)	2012/10/30	9.7		%	30
			Acid Extractable Lead (Pb)	2012/10/30	3.8		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/30	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/30	5.5		%	30
			Acid Extractable Selenium (Se)	2012/10/30	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/30	NC		%	30
			Acid Extractable Thallium (Tl)	2012/10/30	NC		%	30
			Acid Extractable Uranium (U)	2012/10/30	1.1		%	30
			Acid Extractable Vanadium (V)	2012/10/30	NC		%	30
			Acid Extractable Zinc (Zn)	2012/10/30	4.2		%	30
3018891	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/10/30		97	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/10/30	<0.050		ug/g	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Validation Signature Page

Maxxam Job #: B2G6842

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Cristina Carriere, Scientific Services

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 1005015-018 CA1
Site Location: SUMMERHILL WOODS/AREA A
Your C.O.C. #: 36548247, 365482-47-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/10/31

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2G7803
Received: 2012/10/26, 14:53

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	3	2012/10/30	2012/10/30	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2012/10/30	2012/10/31	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	4	2012/10/31	2012/10/31	CAM SOP-00447	EPA 6020
Moisture	1	N/A	2012/10/29	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	1	2012/10/29	2012/10/31	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2G7803
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018 CA1
Site Location: SUMMERHILL WOODS/AREA A

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PJ4990		
Sampling Date		2012/10/26 09:00		
COC Number		365482-47-01		
	Units	**A-FL-2P**	**RDL**	**QC Batch**
Inorganics				
Moisture	%	22	1.0	3017827

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2G7803
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018 CA1
Site Location: SUMMERHILL WOODS/AREA A

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ4987		PJ4988		
Sampling Date			2012/10/26 09:00		2012/10/26 09:00		
COC Number			365482-47-01		365482-47-01		
	Units	**Criteria**	**A-FL-3**	**QC Batch**	**A-FL-4**	**RDL**	**QC Batch**
Metals							
Hot Water Ext. Boron (B)	ug/g	**-**	0.25	3019967	0.65	0.050	3019631
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.29	3020456	0.50	0.20	3020456
Acid Extractable Arsenic (As)	ug/g	**18**	17	3020456	**36**	1.0	3020456
Acid Extractable Barium (Ba)	ug/g	**220**	41	3020456	41	0.50	3020456
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.37	3020456	0.32	0.20	3020456
Acid Extractable Boron (B)	ug/g	**36**	<5.0	3020456	<5.0	5.0	3020456
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.14	3020456	0.20	0.10	3020456
Acid Extractable Chromium (Cr)	ug/g	**70**	12	3020456	12	1.0	3020456
Acid Extractable Cobalt (Co)	ug/g	**21**	4.4	3020456	4.4	0.10	3020456
Acid Extractable Copper (Cu)	ug/g	**92**	10	3020456	20	0.50	3020456
Acid Extractable Lead (Pb)	ug/g	**120**	49	3020456	110	1.0	3020456
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	3020456	<0.50	0.50	3020456
Acid Extractable Nickel (Ni)	ug/g	**82**	7.1	3020456	7.2	0.50	3020456
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	3020456	<0.50	0.50	3020456
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	3020456	<0.20	0.20	3020456
Acid Extractable Thallium (Tl)	ug/g	**1**	0.065	3020456	0.076	0.050	3020456
Acid Extractable Uranium (U)	ug/g	**2.5**	0.40	3020456	0.38	0.050	3020456
Acid Extractable Vanadium (V)	ug/g	**86**	25	3020456	25	5.0	3020456
Acid Extractable Zinc (Zn)	ug/g	**290**	28	3020456	33	5.0	3020456

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7803
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018 CA1
Site Location: SUMMERHILL WOODS/AREA A

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ4989	PJ4991		
Sampling Date			2012/10/26 09:00	2012/10/26 09:00		
COC Number			365482-47-01	365482-47-01		
	Units	**Criteria**	**A-FL-5**	**A-FL-FD**	**RDL**	**QC Batch**
Metals						
Hot Water Ext. Boron (B)	ug/g	**-**	0.14	0.51	0.050	3019967
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	0.52	0.20	3020456
Acid Extractable Arsenic (As)	ug/g	**18**	3.2	**37**	1.0	3020456
Acid Extractable Barium (Ba)	ug/g	**220**	15	39	0.50	3020456
Acid Extractable Beryllium (Be)	ug/g	**2.5**	<0.20	0.35	0.20	3020456
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5.0	3020456
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	0.21	0.10	3020456
Acid Extractable Chromium (Cr)	ug/g	**70**	6.7	12	1.0	3020456
Acid Extractable Cobalt (Co)	ug/g	**21**	2.1	4.3	0.10	3020456
Acid Extractable Copper (Cu)	ug/g	**92**	5.4	21	0.50	3020456
Acid Extractable Lead (Pb)	ug/g	**120**	13	120	1.0	3020456
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	0.50	3020456
Acid Extractable Nickel (Ni)	ug/g	**82**	3.7	7.7	0.50	3020456
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	0.50	3020456
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	0.20	3020456
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	0.080	0.050	3020456
Acid Extractable Uranium (U)	ug/g	**2.5**	0.29	0.40	0.050	3020456
Acid Extractable Vanadium (V)	ug/g	**86**	16	24	5.0	3020456
Acid Extractable Zinc (Zn)	ug/g	**290**	20	34	5.0	3020456

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7803
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018 CA1
Site Location: SUMMERHILL WOODS/AREA A

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ4990		
Sampling Date			2012/10/26 09:00		
COC Number			365482-47-01		
	Units	**Criteria**	**A-FL-2P**	**RDL**	**QC Batch**
Pesticides & Herbicides					
Aldrin	ug/g	**0.05**	<0.0020	0.0020	3017515
a-Chlordane	ug/g	**0.05**	<0.0020	0.0020	3017515
g-Chlordane	ug/g	**0.05**	<0.0020	0.0020	3017515
Chlordane (Total)	ug/g	**0.05**	<0.0020	0.0020	3017515
o,p-DDD	ug/g	**0.05**	<0.0020	0.0020	3017515
p,p-DDD	ug/g	**0.05**	<0.0020	0.0020	3017515
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0020	0.0020	3017515
o,p-DDE	ug/g	**0.05**	<0.0020	0.0020	3017515
p,p-DDE	ug/g	**0.05**	0.0040	0.0020	3017515
o,p-DDE + p,p-DDE	ug/g	**-**	0.0040	0.0020	3017515
o,p-DDT	ug/g	**1.4**	<0.0020	0.0020	3017515
p,p-DDT	ug/g	**1.4**	<0.0020	0.0020	3017515
o,p-DDT + p,p-DDT	ug/g	**-**	<0.0020	0.0020	3017515
Dieldrin	ug/g	**0.05**	<0.0020	0.0020	3017515
Lindane	ug/g	**0.01**	<0.0020	0.0020	3017515
Endosulfan I (alpha)	ug/g	**0.04**	<0.0020	0.0020	3017515
Endosulfan II	ug/g	**0.04**	<0.0020	0.0020	3017515
Total Endosulfan	ug/g	**-**	<0.0020	0.0020	3017515
Endrin	ug/g	**0.04**	<0.0020	0.0020	3017515
Heptachlor	ug/g	**0.05**	<0.0020	0.0020	3017515
Heptachlor epoxide	ug/g	**0.05**	<0.0020	0.0020	3017515
Hexachlorobenzene	ug/g	**0.01**	<0.0020	0.0020	3017515
Hexachlorobutadiene	ug/g	**0.01**	<0.0050	0.0050	3017515
Hexachloroethane	ug/g	**0.01**	<0.0050	0.0050	3017515
Methoxychlor	ug/g	**0.05**	<0.0050	0.0050	3017515
Aroclor 1242	ug/g	**-**	<0.015	0.015	3017515
Aroclor 1248	ug/g	**-**	<0.015	0.015	3017515
Aroclor 1254	ug/g	**-**	<0.015	0.015	3017515
Aroclor 1260	ug/g	**-**	<0.015	0.015	3017515

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7803
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018 CA1
Site Location: SUMMERHILL WOODS/AREA A

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ4990		
Sampling Date			2012/10/26 09:00		
COC Number			365482-47-01		
	Units	**Criteria**	**A-FL-2P**	**RDL**	**QC Batch**
Total PCB	ug/g	**0.3**	<0.015	0.015	3017515
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	-	94		3017515
Decachlorobiphenyl	%	-	105		3017515

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7803
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018 CA1
Site Location: SUMMERHILL WOODS/AREA A

Package 1	2.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report

Maxxam Job Number: MB2G7803

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017515	NZ1	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		95	%	50 - 130
			Decachlorobiphenyl	2012/10/31		101	%	50 - 130
			Aldrin	2012/10/31		98	%	50 - 130
			a-Chlordane	2012/10/31		107	%	50 - 130
			g-Chlordane	2012/10/31		105	%	50 - 130
			o,p-DDD	2012/10/31		98	%	50 - 130
			p,p-DDD	2012/10/31		113	%	50 - 130
			o,p-DDE	2012/10/31		104	%	50 - 130
			p,p-DDE	2012/10/31		NC (1)	%	50 - 130
			o,p-DDT	2012/10/31		108	%	50 - 130
			p,p-DDT	2012/10/31		NC (1)	%	50 - 130
			Dieldrin	2012/10/31		99	%	50 - 130
			Lindane	2012/10/31		91	%	50 - 130
			Endosulfan I (alpha)	2012/10/31		80	%	50 - 130
			Endosulfan II	2012/10/31		97	%	50 - 130
			Endrin	2012/10/31		104	%	50 - 130
			Heptachlor	2012/10/31		100	%	50 - 130
			Heptachlor epoxide	2012/10/31		81	%	50 - 130
			Hexachlorobenzene	2012/10/31		90	%	50 - 130
			Hexachlorobutadiene	2012/10/31		83	%	50 - 130
			Hexachloroethane	2012/10/31		75	%	50 - 130
			Methoxychlor	2012/10/31		108	%	50 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		95	%	50 - 130
			Decachlorobiphenyl	2012/10/31		105	%	50 - 130
			Aldrin	2012/10/31		102	%	50 - 130
			a-Chlordane	2012/10/31		101	%	50 - 130
			g-Chlordane	2012/10/31		91	%	50 - 130
			o,p-DDD	2012/10/31		88	%	50 - 130
			p,p-DDD	2012/10/31		95	%	50 - 130
			o,p-DDE	2012/10/31		94	%	50 - 130
			p,p-DDE	2012/10/31		102	%	50 - 130
			o,p-DDT	2012/10/31		97	%	50 - 130
			p,p-DDT	2012/10/31		99	%	50 - 130
			Dieldrin	2012/10/31		91	%	50 - 130
			Lindane	2012/10/31		87	%	50 - 130
			Endosulfan I (alpha)	2012/10/31		74	%	50 - 130
			Endosulfan II	2012/10/31		78	%	50 - 130
			Endrin	2012/10/31		91	%	50 - 130
			Heptachlor	2012/10/31		96	%	50 - 130
			Heptachlor epoxide	2012/10/31		82	%	50 - 130
			Hexachlorobenzene	2012/10/31		89	%	50 - 130
			Hexachlorobutadiene	2012/10/31		93	%	50 - 130
			Hexachloroethane	2012/10/31		91	%	50 - 130
			Methoxychlor	2012/10/31		87	%	50 - 130
		RPD	Aroclor 1242	2012/10/31	NC		%	40
			Total PCB	2012/10/31	NC		%	40
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		88	%	50 - 130
			Decachlorobiphenyl	2012/10/31		97	%	50 - 130
			Aldrin	2012/10/31	<0.0020		ug/g	
			a-Chlordane	2012/10/31	<0.0020		ug/g	
			g-Chlordane	2012/10/31	<0.0020		ug/g	
			Chlordane (Total)	2012/10/31	<0.0020		ug/g	
			o,p-DDD	2012/10/31	<0.0020		ug/g	
			p,p-DDD	2012/10/31	<0.0020		ug/g	
			o,p-DDD + p,p-DDD	2012/10/31	<0.0020		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7803

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017515	NZ1	Method Blank	o,p-DDE	2012/10/31	<0.0020		ug/g	
			p,p-DDE	2012/10/31	<0.0020		ug/g	
			o,p-DDE + p,p-DDE	2012/10/31	<0.0020		ug/g	
			o,p-DDT	2012/10/31	<0.0020		ug/g	
			p,p-DDT	2012/10/31	<0.0020		ug/g	
			o,p-DDT + p,p-DDT	2012/10/31	<0.0020		ug/g	
			Dieldrin	2012/10/31	<0.0020		ug/g	
			Lindane	2012/10/31	<0.0020		ug/g	
			Endosulfan I (alpha)	2012/10/31	<0.0020		ug/g	
			Endosulfan II	2012/10/31	<0.0020		ug/g	
			Total Endosulfan	2012/10/31	<0.0020		ug/g	
			Endrin	2012/10/31	<0.0020		ug/g	
			Heptachlor	2012/10/31	<0.0020		ug/g	
			Heptachlor epoxide	2012/10/31	<0.0020		ug/g	
			Hexachlorobenzene	2012/10/31	<0.0020		ug/g	
			Hexachlorobutadiene	2012/10/31	<0.0050		ug/g	
			Hexachloroethane	2012/10/31	<0.0050		ug/g	
			Methoxychlor	2012/10/31	<0.0050		ug/g	
			Aroclor 1242	2012/10/31	<0.015		ug/g	
			Aroclor 1248	2012/10/31	<0.015		ug/g	
			Aroclor 1254	2012/10/31	<0.015		ug/g	
			Aroclor 1260	2012/10/31	<0.015		ug/g	
			Total PCB	2012/10/31	<0.015		ug/g	
		RPD	Aldrin	2012/10/31	NC		%	40
			a-Chlordane	2012/10/31	NC		%	40
			g-Chlordane	2012/10/31	NC		%	40
			Chlordane (Total)	2012/10/31	NC		%	40
			o,p-DDD	2012/10/31	NC		%	40
			p,p-DDD	2012/10/31	NC		%	40
			o,p-DDD + p,p-DDD	2012/10/31	NC		%	40
			o,p-DDE	2012/10/31	NC		%	40
			p,p-DDE	2012/10/31	8.7 (2)		%	40
			o,p-DDE + p,p-DDE	2012/10/31	8.7 (2)		%	40
			o,p-DDT	2012/10/31	NC		%	40
			p,p-DDT	2012/10/31	0		%	40
			o,p-DDT + p,p-DDT	2012/10/31	0		%	40
			Dieldrin	2012/10/31	NC		%	40
			Lindane	2012/10/31	NC		%	40
			Endosulfan I (alpha)	2012/10/31	NC		%	40
			Endosulfan II	2012/10/31	NC		%	40
			Total Endosulfan	2012/10/31	NC		%	40
			Endrin	2012/10/31	NC		%	40
			Heptachlor	2012/10/31	NC		%	40
			Heptachlor epoxide	2012/10/31	NC		%	40
			Hexachlorobenzene	2012/10/31	NC		%	40
			Hexachlorobutadiene	2012/10/31	NC		%	40
			Hexachloroethane	2012/10/31	NC		%	40
			Methoxychlor	2012/10/31	NC		%	40
			Aroclor 1248	2012/10/31	NC		%	40
			Aroclor 1254	2012/10/31	NC		%	40
			Aroclor 1260	2012/10/31	NC		%	40
3017827	JL2	RPD	Moisture	2012/10/29	2.0		%	20
3019631	BGI	Spiked Blank	Hot Water Ext. Boron (B)	2012/10/30		98	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/10/30	<0.050		ug/g	
3019967	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/10/30		93	%	75 - 125

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7803

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3019967	AFZ	Method Blank	Hot Water Ext. Boron (B)	2012/10/30	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/10/30	NC		%	35
3020456	HRE	Matrix Spike	Acid Extractable Antimony (Sb)	2012/10/31		102	%	75 - 125
			Acid Extractable Arsenic (As)	2012/10/31		NC	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/31		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/31		98	%	75 - 125
			Acid Extractable Boron (B)	2012/10/31		87	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/31		103	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/31		103	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/31		103	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/31		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/31		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/31		103	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/31		104	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/31		100	%	75 - 125
			Acid Extractable Silver (Ag)	2012/10/31		101	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/31		94	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/31		106	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/31		103	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/31		104	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/31		99	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/31		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/31		97	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/31		97	%	80 - 120
			Acid Extractable Boron (B)	2012/10/31		90	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/31		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/31		102	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/31		102	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/31		96	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/31		102	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/31		100	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/31		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/31		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/31		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/10/31		91	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/31		105	%	80 - 120
			Acid Extractable Vanadium (V)	2012/10/31		105	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/10/31		100	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/31	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/31	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/31	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/10/31	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/31	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/31	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/31	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/31	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/31	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/31	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/31	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/31	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/31	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/31	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/31	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/31	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/10/31	<5.0		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7803

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3020456	HRE	Method Blank	Acid Extractable Zinc (Zn)	2012/10/31	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/10/31	1.1		%	30
			Acid Extractable Arsenic (As)	2012/10/31	5.7		%	30
			Acid Extractable Barium (Ba)	2012/10/31	1.9		%	30
			Acid Extractable Beryllium (Be)	2012/10/31	NC		%	30
			Acid Extractable Boron (B)	2012/10/31	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/31	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/31	4.3		%	30
			Acid Extractable Cobalt (Co)	2012/10/31	2.9		%	30
			Acid Extractable Copper (Cu)	2012/10/31	4.9		%	30
			Acid Extractable Lead (Pb)	2012/10/31	4.2		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/31	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/31	2.5		%	30
			Acid Extractable Selenium (Se)	2012/10/31	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/31	NC		%	30
			Acid Extractable Thallium (Tl)	2012/10/31	NC		%	30
			Acid Extractable Uranium (U)	2012/10/31	2.0		%	30
			Acid Extractable Vanadium (V)	2012/10/31	NC		%	30
			Acid Extractable Zinc (Zn)	2012/10/31	NC		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) The recovery in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.
(2) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

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Validation Signature Page

Maxxam Job #: B2G7803

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA A CONF. SAMPLES
Your C.O.C. #: 36974902, 369749-02-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/06
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H1251
Received: 2012/11/01, 14:21

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	3	2012/11/02	2012/11/02	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	3	2012/11/06	2012/11/06	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	3	2012/11/02	2012/11/02	CAM SOP-00447	EPA 6020
Acid Extr. Metals (aqua regia) by ICPMS	3	2012/11/06	2012/11/06	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2H1251
Report Date: 2012/11/06

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA A CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PL3767	PL3768	PL3769		
Sampling Date			2012/10/31 12:30	2012/10/31 12:30	2012/10/31 12:30		
COC Number			369749-02-01	369749-02-01	369749-02-01		
	Units	**Criteria**	**A-W-5C1A**	**A-W-5C2A**	**A-W-5C3A**	**RDL**	**QC Batch**
Metals							
Hot Water Ext. Boron (B)	ug/g	-	0.70	0.83	0.97	0.050	3026917
Acid Extractable Aluminum (Al)	ug/g	-	9200	11000	7200	50	3026940
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.65	1.1	0.90	0.20	3026940
Acid Extractable Arsenic (As)	ug/g	**18**	**38**	**100**	**86**	1.0	3026940
Acid Extractable Barium (Ba)	ug/g	**220**	51	65	42	0.50	3026940
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.43	0.50	0.34	0.20	3026940
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.18	0.23	0.22	0.10	3026940
Acid Extractable Calcium (Ca)	ug/g	-	3900	4600	4100	50	3026940
Acid Extractable Chromium (Cr)	ug/g	**70**	13	16	12	1.0	3026940
Acid Extractable Cobalt (Co)	ug/g	**21**	5.1	6.4	4.2	0.10	3026940
Acid Extractable Copper (Cu)	ug/g	**92**	32	65	48	0.50	3026940
Acid Extractable Iron (Fe)	ug/g	-	15000	18000	13000	50	3026940
Acid Extractable Lead (Pb)	ug/g	**120**	98	**320**	**300**	1.0	3026940
Acid Extractable Magnesium (Mg)	ug/g	-	2200	3100	2000	50	3026940
Acid Extractable Manganese (Mn)	ug/g	-	560	660	450	1.0	3026940
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	3026940
Acid Extractable Nickel (Ni)	ug/g	**82**	8.4	12	7.9	0.50	3026940
Acid Extractable Phosphorus (P)	ug/g	-	510	670	650	50	3026940
Acid Extractable Potassium (K)	ug/g	-	530	1100	780	200	3026940
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	3026940
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	3026940
Acid Extractable Sodium (Na)	ug/g	-	<100	<100	<100	100	3026940
Acid Extractable Strontium (Sr)	ug/g	-	11	13	10	1.0	3026940
Acid Extractable Thallium (Tl)	ug/g	**1**	0.082	0.14	0.10	0.050	3026940
Acid Extractable Vanadium (V)	ug/g	**86**	23	28	21	5.0	3026940
Acid Extractable Zinc (Zn)	ug/g	**290**	37	51	44	5.0	3026940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H1251
Report Date: 2012/11/06

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA A CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PL3770		PL3771	PL3772		
Sampling Date			2012/11/01 13:00		2012/11/01 13:00	2012/11/01 13:00		
COC Number			369749-02-01		369749-02-01	369749-02-01		
	Units	**Criteria**	**A-W-5C1**	**QC Batch**	**A-W-5C2**	**A-W-5C3**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	1.4	3023631	0.67	0.76	0.050	3023583
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.91	3023528	1.3	0.72	0.20	3023528
Acid Extractable Arsenic (As)	ug/g	**18**	**76**	3023528	**110**	**67**	1.0	3023528
Acid Extractable Barium (Ba)	ug/g	**220**	49	3023528	68	39	0.50	3023528
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.36	3023528	0.53	0.29	0.20	3023528
Acid Extractable Boron (B)	ug/g	**36**	<5.0	3023528	<5.0	<5.0	5.0	3023528
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.26	3023528	0.29	0.21	0.10	3023528
Acid Extractable Chromium (Cr)	ug/g	**70**	12	3023528	16	9.9	1.0	3023528
Acid Extractable Cobalt (Co)	ug/g	**21**	4.7	3023528	6.6	3.8	0.10	3023528
Acid Extractable Copper (Cu)	ug/g	**92**	39	3023528	48	35	0.50	3023528
Acid Extractable Lead (Pb)	ug/g	**120**	**250**	3023528	**340**	**160**	1.0	3023528
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	3023528	<0.50	<0.50	0.50	3023528
Acid Extractable Nickel (Ni)	ug/g	**82**	8.7	3023528	12	6.6	0.50	3023528
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	3023528	<0.50	<0.50	0.50	3023528
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	3023528	<0.20	<0.20	0.20	3023528
Acid Extractable Thallium (Tl)	ug/g	**1**	0.11	3023528	0.14	0.080	0.050	3023528
Acid Extractable Uranium (U)	ug/g	**2.5**	0.35	3023528	0.41	0.38	0.050	3023528
Acid Extractable Vanadium (V)	ug/g	**86**	22	3023528	29	19	5.0	3023528
Acid Extractable Zinc (Zn)	ug/g	**290**	42	3023528	52	29	5.0	3023528

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2H1251
Report Date: 2012/11/06

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA A CONF. SAMPLES

Package 1	8.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A CONF. SAMPLES

Quality Assurance Report

Maxxam Job Number: MB2H1251

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3023528	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/02		102	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/02		105	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/02		115	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/02		109	%	75 - 125
			Acid Extractable Boron (B)	2012/11/02		101	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/02		104	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/02		100	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/02		102	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/02		98	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/02		85	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/02		103	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/02		101	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/02		102	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/02		103	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/02		93	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/02		103	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/02		101	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/02		NC (1)	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/02		96	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/02		102	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/02		103	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/02		106	%	80 - 120
			Acid Extractable Boron (B)	2012/11/02		102	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/02		100	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/02		95	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/02		101	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/02		97	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/02		97	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/02		95	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/02		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/02		103	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/02		102	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/02		93	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/02		100	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/02		95	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/02		101	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/02	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/02	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/02	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/02	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/02	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/02	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/02	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/02	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/02	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/02	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/02	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/02	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/02	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/02	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/02	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/02	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/02	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/02	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/02	NC		%	30

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A CONF. SAMPLES

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H1251

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3023528	VIV	RPD	Acid Extractable Arsenic (As)	2012/11/02	1.9		%	30
			Acid Extractable Barium (Ba)	2012/11/02	23.6		%	30
			Acid Extractable Beryllium (Be)	2012/11/02	NC		%	30
			Acid Extractable Boron (B)	2012/11/02	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/02	10.5		%	30
			Acid Extractable Chromium (Cr)	2012/11/02	NC		%	30
			Acid Extractable Cobalt (Co)	2012/11/02	1.3		%	30
			Acid Extractable Copper (Cu)	2012/11/02	7.9		%	30
			Acid Extractable Lead (Pb)	2012/11/02	40.2 (2)		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/02	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/02	2.4		%	30
			Acid Extractable Selenium (Se)	2012/11/02	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/02	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/02	NC		%	30
			Acid Extractable Uranium (U)	2012/11/02	NC		%	30
			Acid Extractable Vanadium (V)	2012/11/02	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/02	18.6		%	30
3023583	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/02		93	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/02	<0.050		ug/g	
3023631	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/02		95	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/02	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/11/02	NC		%	35
3026917	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/06		94	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/06	<0.050		ug/g	
3026940	VIV	Matrix Spike	Acid Extractable Aluminum (Al)	2012/11/06		NC	%	75 - 125
			Acid Extractable Antimony (Sb)	2012/11/06		90	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/06		NC	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/06		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/06		99	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/06		94	%	75 - 125
			Acid Extractable Calcium (Ca)	2012/11/06		NC	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/06		100	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/06		94	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/06		NC	%	75 - 125
			Acid Extractable Iron (Fe)	2012/11/06		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/06		NC	%	75 - 125
			Acid Extractable Magnesium (Mg)	2012/11/06		NC	%	75 - 125
			Acid Extractable Manganese (Mn)	2012/11/06		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/06		92	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/06		99	%	75 - 125
			Acid Extractable Phosphorus (P)	2012/11/06		NC	%	75 - 125
			Acid Extractable Potassium (K)	2012/11/06		NC	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/06		94	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/06		95	%	75 - 125
			Acid Extractable Sodium (Na)	2012/11/06		96	%	75 - 125
			Acid Extractable Strontium (Sr)	2012/11/06		98	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/06		90	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/06		101	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/06		NC	%	75 - 125
		Spiked Blank	Acid Extractable Aluminum (Al)	2012/11/06		109	%	80 - 120
			Acid Extractable Antimony (Sb)	2012/11/06		94	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/06		99	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/06		101	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/06		99	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/06		97	%	80 - 120

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A CONF. SAMPLES

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H1251

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3026940	VIV	Spiked Blank	Acid Extractable Calcium (Ca)	2012/11/06		104	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/06		97	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/06		96	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/06		95	%	80 - 120
			Acid Extractable Iron (Fe)	2012/11/06		107	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/06		94	%	80 - 120
			Acid Extractable Magnesium (Mg)	2012/11/06		100	%	80 - 120
			Acid Extractable Manganese (Mn)	2012/11/06		102	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/06		93	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/06		99	%	80 - 120
			Acid Extractable Phosphorus (P)	2012/11/06		98	%	80 - 120
			Acid Extractable Potassium (K)	2012/11/06		95	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/06		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/06		97	%	80 - 120
			Acid Extractable Sodium (Na)	2012/11/06		97	%	80 - 120
			Acid Extractable Strontium (Sr)	2012/11/06		97	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/06		92	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/06		97	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/06		96	%	80 - 120
		Method Blank	Acid Extractable Aluminum (Al)	2012/11/06	<50		ug/g	
			Acid Extractable Antimony (Sb)	2012/11/06	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/06	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/06	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/06	<0.20		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/06	<0.10		ug/g	
			Acid Extractable Calcium (Ca)	2012/11/06	<50		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/06	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/06	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/06	<0.50		ug/g	
			Acid Extractable Iron (Fe)	2012/11/06	<50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/06	<1.0		ug/g	
			Acid Extractable Magnesium (Mg)	2012/11/06	<50		ug/g	
			Acid Extractable Manganese (Mn)	2012/11/06	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/06	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/06	<0.50		ug/g	
			Acid Extractable Phosphorus (P)	2012/11/06	<50		ug/g	
			Acid Extractable Potassium (K)	2012/11/06	<200		ug/g	
			Acid Extractable Selenium (Se)	2012/11/06	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/06	<0.20		ug/g	
			Acid Extractable Sodium (Na)	2012/11/06	<100		ug/g	
			Acid Extractable Strontium (Sr)	2012/11/06	<1.0		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/06	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/06	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/06	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/06	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/06	2.9		%	30
			Acid Extractable Barium (Ba)	2012/11/06	0.3		%	30
			Acid Extractable Beryllium (Be)	2012/11/06	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/06	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/06	2.9		%	30
			Acid Extractable Cobalt (Co)	2012/11/06	2.4		%	30
			Acid Extractable Copper (Cu)	2012/11/06	3.9		%	30
			Acid Extractable Lead (Pb)	2012/11/06	1.7		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/06	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/06	4.1		%	30

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A CONF. SAMPLES

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H1251

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3026940	VIV	RPD	Acid Extractable Selenium (Se)	2012/11/06	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/06	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/06	NC		%	30
			Acid Extractable Vanadium (V)	2012/11/06	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/06	1.0		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) The recovery in the matrix spike was not calculated (NC). Spiked concentration was less than 2x that native to the sample.
(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Validation Signature Page

Maxxam Job #: B2H1251

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Brad Newman, Scientific Specialist

Cristina Carriere, Scientific Services

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A
Your C.O.C. #: 36548211, 365482-11-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/08

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H4857
Received: 2012/11/07, 14:10

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	5	2012/11/08	2012/11/08	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	5	2012/11/08	2012/11/08	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2H4857
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PN2631	PN2632	PN2633	PN2634	PN2635		
Sampling Date			2012/11/07	2012/11/07	2012/11/07	2012/11/07	2012/11/07		
COC Number			365482-11-01	365482-11-01	365482-11-01	365482-11-01	365482-11-01		
	Units	**Criteria**	**A-5C2B**	**A-5C2C**	**A-5C3B**	**A-5C3C**	**A-5C2B-D**	**RDL**	**QC Batch**
Metals									
Hot Water Ext. Boron (B)	ug/g	**-**	0.72	0.74	0.54	0.92	0.77	0.050	3029813
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.64	0.70	<0.20	0.75	0.56	0.20	3029847
Acid Extractable Arsenic (As)	ug/g	**18**	**55**	**52**	8.9	**61**	**56**	1.0	3029847
Acid Extractable Barium (Ba)	ug/g	**220**	45	54	45	49	46	0.50	3029847
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.37	0.41	0.33	0.35	0.36	0.20	3029847
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	3029847
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.19	0.22	0.17	0.21	0.18	0.10	3029847
Acid Extractable Chromium (Cr)	ug/g	**70**	12	13	10	12	12	1.0	3029847
Acid Extractable Cobalt (Co)	ug/g	**21**	4.5	5.0	4.0	4.6	4.4	0.10	3029847
Acid Extractable Copper (Cu)	ug/g	**92**	32	33	16	47	38	0.50	3029847
Acid Extractable Lead (Pb)	ug/g	**120**	**190**	**160**	28	**180**	**180**	1.0	3029847
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3029847
Acid Extractable Nickel (Ni)	ug/g	**82**	8.7	9.5	7.4	8.3	8.7	0.50	3029847
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3029847
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	3029847
Acid Extractable Thallium (Tl)	ug/g	**1**	0.099	0.10	0.061	0.10	0.090	0.050	3029847
Acid Extractable Uranium (U)	ug/g	**2.5**	0.36	0.32	0.29	0.33	0.32	0.050	3029847
Acid Extractable Vanadium (V)	ug/g	**86**	22	23	20	22	22	5.0	3029847
Acid Extractable Zinc (Zn)	ug/g	**290**	34	37	31	36	38	5.0	3029847

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H4857
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A
Sampler Initials: RW

Package 1	2.7°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report

Maxxam Job Number: MB2H4857

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3029813	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/08		101	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/08	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/11/08	NC		%	35
3029847	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/08		94	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/08		NC	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/08		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/08		98	%	75 - 125
			Acid Extractable Boron (B)	2012/11/08		93	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/08		95	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/08		92	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/08		93	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/08		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/08		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/08		91	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/08		97	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/08		94	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/08		95	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/08		92	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/08		99	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/08		93	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/08		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/08		98	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/08		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/08		105	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/08		97	%	80 - 120
			Acid Extractable Boron (B)	2012/11/08		99	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/08		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/08		94	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/08		96	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/08		94	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/08		97	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/08		95	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/08		100	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/08		97	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/08		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/08		93	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/08		106	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/08		93	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/08		102	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/08	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/08	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/08	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/08	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/08	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/08	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/08	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/08	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/08	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/08	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/08	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/08	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/08	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/08	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/08	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/08	<0.050		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H4857

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3029847	VIV	Method Blank	Acid Extractable Vanadium (V)	2012/11/08	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/08	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/08	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/08	3.9		%	30
			Acid Extractable Barium (Ba)	2012/11/08	0.7		%	30
			Acid Extractable Beryllium (Be)	2012/11/08	NC		%	30
			Acid Extractable Boron (B)	2012/11/08	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/08	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/08	8.3		%	30
			Acid Extractable Cobalt (Co)	2012/11/08	1.5		%	30
			Acid Extractable Copper (Cu)	2012/11/08	0.05		%	30
			Acid Extractable Lead (Pb)	2012/11/08	5.4		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/08	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/08	0.3		%	30
			Acid Extractable Selenium (Se)	2012/11/08	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/08	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/08	NC		%	30
			Acid Extractable Uranium (U)	2012/11/08	3.0		%	30
			Acid Extractable Vanadium (V)	2012/11/08	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/08	5.1		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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Validation Signature Page

Maxxam Job #: B2H4857

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere, Scientific Services

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 10-05015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A
Your C.O.C. #: 37362902, 373629-02-01

Attention: Carolyn Adams
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H6806
Received: 2012/11/09, 17:40

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	2	2012/11/12	2012/11/12	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	1	2012/11/12	2012/11/12	CAM SOP-00447	EPA 6020
Acid Extr. Metals (aqua regia) by ICPMS	1	2012/11/12	2012/11/13	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2H6806
Report Date: 2012/11/13

MMM Group Limited
Client Project #: 10-05015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		PO2270		PO2271		
Sampling Date		2012/11/09 12:25		2012/11/09 12:30		
COC Number		373629-02-01		373629-02-01		
	Units	**A-5C3D**	**QC Batch**	**A-5C3E**	**RDL**	**QC Batch**
Metals						
Hot Water Ext. Boron (B)	ug/g	1.1	3033565	1.1	0.050	3033565
Acid Extractable Antimony (Sb)	ug/g	0.66	3033458	0.90	0.20	3033775
Acid Extractable Arsenic (As)	ug/g	49	3033458	83	1.0	3033775
Acid Extractable Barium (Ba)	ug/g	47	3033458	47	0.50	3033775
Acid Extractable Beryllium (Be)	ug/g	0.33	3033458	0.35	0.20	3033775
Acid Extractable Boron (B)	ug/g	<5.0	3033458	<5.0	5.0	3033775
Acid Extractable Cadmium (Cd)	ug/g	0.21	3033458	0.22	0.10	3033775
Acid Extractable Chromium (Cr)	ug/g	12	3033458	12	1.0	3033775
Acid Extractable Cobalt (Co)	ug/g	4.5	3033458	4.5	0.10	3033775
Acid Extractable Copper (Cu)	ug/g	29	3033458	52	0.50	3033775
Acid Extractable Lead (Pb)	ug/g	140	3033458	300	1.0	3033775
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	3033458	<0.50	0.50	3033775
Acid Extractable Nickel (Ni)	ug/g	8.3	3033458	8.3	0.50	3033775
Acid Extractable Selenium (Se)	ug/g	<0.50	3033458	<0.50	0.50	3033775
Acid Extractable Silver (Ag)	ug/g	<0.20	3033458	<0.20	0.20	3033775
Acid Extractable Thallium (Tl)	ug/g	0.081	3033458	0.11	0.050	3033775
Acid Extractable Uranium (U)	ug/g	0.31	3033458	0.34	0.050	3033775
Acid Extractable Vanadium (V)	ug/g	21	3033458	21	5.0	3033775
Acid Extractable Zinc (Zn)	ug/g	36	3033458	36	5.0	3033775

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2H6806
Report Date: 2012/11/13

MMM Group Limited
Client Project #: 10-05015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

Package 1	7.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Carolyn Adams
Client Project #: 10-05015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report

Maxxam Job Number: MB2H6806

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3033458	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/12		106	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/12		105	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/12		99	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/12		104	%	75 - 125
			Acid Extractable Boron (B)	2012/11/12		97	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/12		103	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/12		102	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/12		101	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/12		95	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/12		102	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/12		103	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/12		104	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/12		103	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/12		103	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/12		94	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/12		104	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/12		110	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/12		102	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/12		100	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/12		103	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/12		104	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/12		101	%	80 - 120
			Acid Extractable Boron (B)	2012/11/12		96	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/12		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/12		99	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/12		101	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/12		97	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/12		102	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/12		97	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/12		105	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/12		102	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/12		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/12		94	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/12		107	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/12		97	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/12		106	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/12	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/12	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/12	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/12	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/12	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/12	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/12	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/12	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/12	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/12	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/12	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/12	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/12	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/12	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/12	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/12	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/12	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/12	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/12	NC		%	30

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MMM Group Limited
Attention: Carolyn Adams
Client Project #: 10-05015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H6806

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3033458	VIV	RPD	Acid Extractable Arsenic (As)	2012/11/12	NC		%	30
			Acid Extractable Barium (Ba)	2012/11/12	24.1		%	30
			Acid Extractable Beryllium (Be)	2012/11/12	NC		%	30
			Acid Extractable Boron (B)	2012/11/12	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/12	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/12	NC		%	30
			Acid Extractable Cobalt (Co)	2012/11/12	4.5		%	30
			Acid Extractable Copper (Cu)	2012/11/12	5.4		%	30
			Acid Extractable Lead (Pb)	2012/11/12	NC		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/12	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/12	2.3		%	30
			Acid Extractable Selenium (Se)	2012/11/12	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/12	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/12	NC		%	30
			Acid Extractable Uranium (U)	2012/11/12	12.6		%	30
			Acid Extractable Vanadium (V)	2012/11/12	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/12	NC		%	30
3033565	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/12		100	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/12	<0.050		ug/g	
3033775	JBW	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/13		88	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/13		98	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/13		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/13		100	%	75 - 125
			Acid Extractable Boron (B)	2012/11/13		90	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/13		95	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/13		97	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/13		93	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/13		95	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/13		94	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/13		95	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/13		97	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/13		94	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/13		94	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/13		92	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/13		102	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/13		NC	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/13		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/13		100	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/13		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/13		100	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/13		102	%	80 - 120
			Acid Extractable Boron (B)	2012/11/13		102	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/13		97	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/13		96	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/13		95	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/13		98	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/13		100	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/13		98	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/13		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/13		101	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/13		97	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/13		97	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/13		108	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/13		98	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/13		103	%	80 - 120

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MMM Group Limited
Attention: Carolyn Adams
Client Project #: 10-05015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H6806

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3033775	JBW	Method Blank	Acid Extractable Antimony (Sb)	2012/11/13	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/13	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/13	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/13	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/13	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/13	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/13	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/13	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/13	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/13	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/13	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/13	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/13	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/13	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/13	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/13	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/13	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/13	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/13	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/13	NC		%	30
			Acid Extractable Barium (Ba)	2012/11/13	1.3		%	30
			Acid Extractable Beryllium (Be)	2012/11/13	NC		%	30
			Acid Extractable Boron (B)	2012/11/13	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/13	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/13	0.5		%	30
			Acid Extractable Cobalt (Co)	2012/11/13	0.8		%	30
			Acid Extractable Copper (Cu)	2012/11/13	0.5		%	30
			Acid Extractable Lead (Pb)	2012/11/13	2.1		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/13	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/13	3.5		%	30
			Acid Extractable Selenium (Se)	2012/11/13	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/13	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/13	NC		%	30
			Acid Extractable Uranium (U)	2012/11/13	1.5		%	30
			Acid Extractable Vanadium (V)	2012/11/13	3.1		%	30
			Acid Extractable Zinc (Zn)	2012/11/13	1.3		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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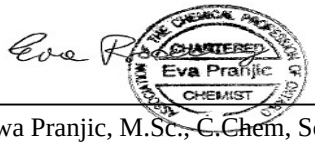
Validation Signature Page

Maxxam Job #: B2H6806

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

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Your Project #: 10-05015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A
Your C.O.C. #: 36548213, 365482-13-01

Attention: Carolyn Adams
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/15

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H8951
Received: 2012/11/14, 14:16

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	4	2012/11/15	2012/11/15	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	4	2012/11/15	2012/11/15	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

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Total cover pages: 1

Maxxam Job #: B2H8951
Report Date: 2012/11/15

MMM Group Limited
Client Project #: 10-05015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PP3597	PP3598	PP3599	PP3600		
Sampling Date			2012/11/14 10:55	2012/11/14 10:55	2012/11/14 10:55	2012/11/14 10:55		
COC Number			365482-13-01	365482-13-01	365482-13-01	365482-13-01		
	Units	**Criteria**	**A5C3D**	**A5C3E**	**A5C3F**	**A5C3G**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.70	0.90	0.88	0.67	0.050	3037052
Acid Extractable Antimony (Sb)	ug/g	**1.3**	1.0	0.31	0.71	0.27	0.20	3037085
Acid Extractable Arsenic (As)	ug/g	**18**	**74**	**21**	**52**	**19**	1.0	3037085
Acid Extractable Barium (Ba)	ug/g	**220**	57	53	47	52	0.50	3037085
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.47	0.42	0.38	0.42	0.20	3037085
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	3037085
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.25	0.22	0.19	0.14	0.10	3037085
Acid Extractable Chromium (Cr)	ug/g	**70**	15	14	12	13	1.0	3037085
Acid Extractable Cobalt (Co)	ug/g	**21**	5.7	5.2	4.5	5.1	0.10	3037085
Acid Extractable Copper (Cu)	ug/g	**92**	45	27	36	23	0.50	3037085
Acid Extractable Lead (Pb)	ug/g	**120**	**230**	65	**160**	55	1.0	3037085
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	3037085
Acid Extractable Nickel (Ni)	ug/g	**82**	11	9.6	7.7	9.3	0.50	3037085
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	3037085
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	3037085
Acid Extractable Thallium (Tl)	ug/g	**1**	0.12	0.094	0.089	0.086	0.050	3037085
Acid Extractable Uranium (U)	ug/g	**2.5**	0.40	0.32	0.37	0.32	0.050	3037085
Acid Extractable Vanadium (V)	ug/g	**86**	26	24	22	23	5.0	3037085
Acid Extractable Zinc (Zn)	ug/g	**290**	40	38	35	36	5.0	3037085

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H8951
Report Date: 2012/11/15

MMM Group Limited
Client Project #: 10-05015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A

Package 1	13.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Carolyn Adams
Client Project #: 10-05015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report

Maxxam Job Number: MB2H8951

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3037052	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/15		100	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/15	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/11/15	NC		%	35
3037085	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/15		102	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/15		105	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/15		107	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/15		105	%	75 - 125
			Acid Extractable Boron (B)	2012/11/15		100	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/15		105	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/15		102	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/15		98	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/15		96	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/15		99	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/15		100	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/15		104	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/15		105	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/15		102	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/15		97	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/15		103	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/15		100	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/15		103	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/15		96	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/15		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/15		104	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/15		102	%	80 - 120
			Acid Extractable Boron (B)	2012/11/15		102	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/15		101	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/15		99	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/15		95	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/15		95	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/15		99	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/15		96	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/15		99	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/15		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/15		100	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/15		95	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/15		101	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/15		93	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/15		96	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/15	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/15	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/15	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/15	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/15	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/15	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/15	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/15	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/15	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/15	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/15	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/15	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/15	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/15	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/15	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/15	<0.050		ug/g	

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MMM Group Limited
Attention: Carolyn Adams
Client Project #: 10-05015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H8951

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3037085	VIV	Method Blank	Acid Extractable Vanadium (V)	2012/11/15	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/15	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/15	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/15	NC		%	30
			Acid Extractable Barium (Ba)	2012/11/15	2.3		%	30
			Acid Extractable Beryllium (Be)	2012/11/15	NC		%	30
			Acid Extractable Boron (B)	2012/11/15	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/15	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/15	NC		%	30
			Acid Extractable Cobalt (Co)	2012/11/15	21.6		%	30
			Acid Extractable Copper (Cu)	2012/11/15	9.5		%	30
			Acid Extractable Lead (Pb)	2012/11/15	NC		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/15	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/15	0.1		%	30
			Acid Extractable Selenium (Se)	2012/11/15	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/15	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/15	NC		%	30
			Acid Extractable Uranium (U)	2012/11/15	NC		%	30
			Acid Extractable Vanadium (V)	2012/11/15	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/15	NC		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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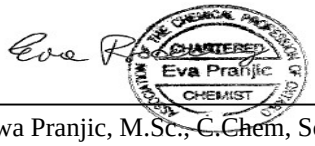
Validation Signature Page

Maxxam Job #: B2H8951

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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Your Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A CONFIRMATION
Your C.O.C. #: 36548220, 365482-20-01

Attention: Carolyn Adams
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/21
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2I0690
Received: 2012/11/16, 14:50

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	2	2012/11/17	2012/11/19	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	2	2012/11/17	2012/11/19	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

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Total cover pages: 1

Maxxam Job #: B2I0690
Report Date: 2012/11/21

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A CONFIRMATION

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PQ2953	PQ2954		
Sampling Date			2012/11/16 10:00	2012/11/16 10:30		
COC Number			365482-20-01	365482-20-01		
	Units	**Criteria**	**A53CH**	**A53CI**	**RDL**	**QC Batch**
Metals						
Hot Water Ext. Boron (B)	ug/g	-	0.46	0.70	0.050	3040132
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.49	0.42	0.20	3040153
Acid Extractable Arsenic (As)	ug/g	**18**	**28**	**35**	1.0	3040153
Acid Extractable Barium (Ba)	ug/g	**220**	55	61	0.50	3040153
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.43	0.43	0.20	3040153
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5.0	3040153
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.21	0.20	0.10	3040153
Acid Extractable Chromium (Cr)	ug/g	**70**	14	15	1.0	3040153
Acid Extractable Cobalt (Co)	ug/g	**21**	5.3	5.7	0.10	3040153
Acid Extractable Copper (Cu)	ug/g	**92**	21	25	0.50	3040153
Acid Extractable Lead (Pb)	ug/g	**120**	86	110	1.0	3040153
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	0.50	3040153
Acid Extractable Nickel (Ni)	ug/g	**82**	10	11	0.50	3040153
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	0.50	3040153
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	0.20	3040153
Acid Extractable Thallium (Tl)	ug/g	**1**	0.10	0.11	0.050	3040153
Acid Extractable Uranium (U)	ug/g	**2.5**	0.31	0.48	0.050	3040153
Acid Extractable Vanadium (V)	ug/g	**86**	25	27	5.0	3040153
Acid Extractable Zinc (Zn)	ug/g	**290**	34	39	5.0	3040153

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2I0690
Report Date: 2012/11/21

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA A CONFIRMATION

Package 1	7.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Revised Report (2012/11/21): Client sample IDs changed as per client request.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Carolyn Adams
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A CONFIRMATION

Quality Assurance Report

Maxxam Job Number: MB2I0690

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3040132	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/19		99	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/19	<0.050		ug/g	
3040153	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/19		107	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/19		106	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/19		105	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/19		107	%	75 - 125
			Acid Extractable Boron (B)	2012/11/19		105	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/19		108	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/19		102	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/19		100	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/19		97	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/19		99	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/19		108	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/19		103	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/19		105	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/19		102	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/19		96	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/19		105	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/19		105	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/19		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/19		106	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/19		104	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/19		108	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/19		105	%	80 - 120
			Acid Extractable Boron (B)	2012/11/19		105	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/19		105	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/19		102	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/19		99	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/19		100	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/19		103	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/19		103	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/19		103	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/19		104	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/19		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/19		94	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/19		111	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/19		100	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/19		100	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/19	0.21, RDL=0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/19	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/19	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/19	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/19	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/19	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/19	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/19	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/19	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/19	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/19	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/19	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/19	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/19	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/19	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/19	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/19	<5.0		ug/g	

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MMM Group Limited
Attention: Carolyn Adams
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA A CONFIRMATION

Quality Assurance Report (Continued)

Maxxam Job Number: MB2I0690

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3040153	VIV	Method Blank	Acid Extractable Zinc (Zn)	2012/11/19	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/19	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/19	NC		%	30
			Acid Extractable Barium (Ba)	2012/11/19	12.8		%	30
			Acid Extractable Beryllium (Be)	2012/11/19	NC		%	30
			Acid Extractable Boron (B)	2012/11/19	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/19	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/19	12.7		%	30
			Acid Extractable Cobalt (Co)	2012/11/19	5.7		%	30
			Acid Extractable Copper (Cu)	2012/11/19	27.3		%	30
			Acid Extractable Lead (Pb)	2012/11/19	8.6		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/19	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/19	9.5		%	30
			Acid Extractable Selenium (Se)	2012/11/19	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/19	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/19	NC		%	30
			Acid Extractable Uranium (U)	2012/11/19	11.3		%	30
			Acid Extractable Vanadium (V)	2012/11/19	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/19	11.1		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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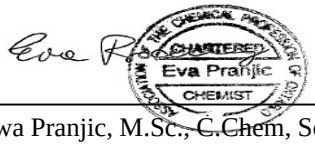
Validation Signature Page

Maxxam Job #: B2I0690

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA B
Your C.O.C. #: 36548248, 365482-48-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/10/31

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2G7804
Received: 2012/10/26, 14:53

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	4	2012/10/30	2012/10/31	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	4	2012/10/31	2012/10/31	CAM SOP-00447	EPA 6020
Moisture	2	N/A	2012/10/29	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	2	2012/10/29	2012/10/31	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B2G7804
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA B

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PJ5002	PJ5003		
Sampling Date		2012/10/26 10:00	2012/10/26 10:00		
COC Number		365482-48-01	365482-48-01		
	Units	**B-FL-2P**	**B-FL-FDP**	**RDL**	**QC Batch**
Inorganics					
Moisture	%	29	27	1.0	3017827

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2G7804
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA B

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ4998	PJ4999	PJ5000	PJ5001		
Sampling Date			2012/10/26 10:00	2012/10/26 10:00	2012/10/26 10:00	2012/10/26 10:00		
COC Number			365482-48-01	365482-48-01	365482-48-01	365482-48-01		
	Units	**Criteria**	**B-FL-2**	**B-FL-3**	**B-FL-5**	**B-FL-6**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	-	0.47	0.50	0.49	0.55	0.050	3019967
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.50	0.72	0.34	0.43	0.20	3020456
Acid Extractable Arsenic (As)	ug/g	**18**	**35**	**62**	**25**	**31**	1.0	3020456
Acid Extractable Barium (Ba)	ug/g	**220**	67	65	58	91	0.50	3020456
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.52	0.47	0.40	0.52	0.20	3020456
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	3020456
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.22	0.21	0.24	0.28	0.10	3020456
Acid Extractable Chromium (Cr)	ug/g	**70**	18	18	18	25	1.0	3020456
Acid Extractable Cobalt (Co)	ug/g	**21**	7.1	6.5	5.0	6.9	0.10	3020456
Acid Extractable Copper (Cu)	ug/g	**92**	25	36	19	21	0.50	3020456
Acid Extractable Lead (Pb)	ug/g	**120**	110	**210**	86	110	1.0	3020456
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.54	0.50	3020456
Acid Extractable Nickel (Ni)	ug/g	**82**	13	11	8.6	13	0.50	3020456
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	3020456
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	3020456
Acid Extractable Thallium (Tl)	ug/g	**1**	0.11	0.12	0.084	0.12	0.050	3020456
Acid Extractable Uranium (U)	ug/g	**2.5**	0.42	0.45	0.35	0.45	0.050	3020456
Acid Extractable Vanadium (V)	ug/g	**86**	31	29	25	31	5.0	3020456
Acid Extractable Zinc (Zn)	ug/g	**290**	48	50	41	48	5.0	3020456

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2G7804
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA B

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ5002	PJ5003		
Sampling Date			2012/10/26 10:00	2012/10/26 10:00		
COC Number			365482-48-01	365482-48-01		
	Units	**Criteria**	**B-FL-2P**	**B-FL-FDP**	**RDL**	**QC Batch**
Pesticides & Herbicides						
Aldrin	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
a-Chlordane	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
g-Chlordane	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
Chlordane (Total)	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
o,p-DDD	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
p,p-DDD	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0020	<0.0020	0.0020	3017515
o,p-DDE	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
p,p-DDE	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
o,p-DDE + p,p-DDE	ug/g	**-**	<0.0020	<0.0020	0.0020	3017515
o,p-DDT	ug/g	**1.4**	<0.0020	<0.0020	0.0020	3017515
p,p-DDT	ug/g	**1.4**	<0.0020	<0.0020	0.0020	3017515
o,p-DDT + p,p-DDT	ug/g	**-**	<0.0020	<0.0020	0.0020	3017515
Dieldrin	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
Lindane	ug/g	**0.01**	<0.0020	<0.0020	0.0020	3017515
Endosulfan I (alpha)	ug/g	**0.04**	<0.0020	<0.0020	0.0020	3017515
Endosulfan II	ug/g	**0.04**	<0.0020	<0.0020	0.0020	3017515
Total Endosulfan	ug/g	**-**	<0.0020	<0.0020	0.0020	3017515
Endrin	ug/g	**0.04**	<0.0020	<0.0020	0.0020	3017515
Heptachlor	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
Heptachlor epoxide	ug/g	**0.05**	<0.0020	<0.0020	0.0020	3017515
Hexachlorobenzene	ug/g	**0.01**	<0.0020	<0.0020	0.0020	3017515
Hexachlorobutadiene	ug/g	**0.01**	<0.0050	<0.0050	0.0050	3017515
Hexachloroethane	ug/g	**0.01**	<0.0050	<0.0050	0.0050	3017515
Methoxychlor	ug/g	**0.05**	<0.0050	<0.0050	0.0050	3017515
Aroclor 1242	ug/g	**-**	<0.015	<0.015	0.015	3017515
Aroclor 1248	ug/g	**-**	<0.015	<0.015	0.015	3017515
Aroclor 1254	ug/g	**-**	<0.015	<0.015	0.015	3017515
Aroclor 1260	ug/g	**-**	<0.015	<0.015	0.015	3017515
Total PCB	ug/g	**0.3**	<0.015	<0.015	0.015	3017515

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7804
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA B

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ5002	PJ5003		
Sampling Date			2012/10/26 10:00	2012/10/26 10:00		
COC Number			365482-48-01	365482-48-01		
	Units	**Criteria**	**B-FL-2P**	**B-FL-FDP**	**RDL**	**QC Batch**
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	-	95	101		3017515
Decachlorobiphenyl	%	-	107	96		3017515

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7804
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA B

Package 1	2.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA B

Quality Assurance Report

Maxxam Job Number: MB2G7804

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017515	NZ1	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		95	%	50 - 130
			Decachlorobiphenyl	2012/10/31		101	%	50 - 130
			Aldrin	2012/10/31		98	%	50 - 130
			a-Chlordane	2012/10/31		107	%	50 - 130
			g-Chlordane	2012/10/31		105	%	50 - 130
			o,p-DDD	2012/10/31		98	%	50 - 130
			p,p-DDD	2012/10/31		113	%	50 - 130
			o,p-DDE	2012/10/31		104	%	50 - 130
			p,p-DDE	2012/10/31		NC (1)	%	50 - 130
			o,p-DDT	2012/10/31		108	%	50 - 130
			p,p-DDT	2012/10/31		NC (1)	%	50 - 130
			Dieldrin	2012/10/31		99	%	50 - 130
			Lindane	2012/10/31		91	%	50 - 130
			Endosulfan I (alpha)	2012/10/31		80	%	50 - 130
			Endosulfan II	2012/10/31		97	%	50 - 130
			Endrin	2012/10/31		104	%	50 - 130
			Heptachlor	2012/10/31		100	%	50 - 130
			Heptachlor epoxide	2012/10/31		81	%	50 - 130
			Hexachlorobenzene	2012/10/31		90	%	50 - 130
			Hexachlorobutadiene	2012/10/31		83	%	50 - 130
			Hexachloroethane	2012/10/31		75	%	50 - 130
			Methoxychlor	2012/10/31		108	%	50 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		95	%	50 - 130
			Decachlorobiphenyl	2012/10/31		105	%	50 - 130
			Aldrin	2012/10/31		102	%	50 - 130
			a-Chlordane	2012/10/31		101	%	50 - 130
			g-Chlordane	2012/10/31		91	%	50 - 130
			o,p-DDD	2012/10/31		88	%	50 - 130
			p,p-DDD	2012/10/31		95	%	50 - 130
			o,p-DDE	2012/10/31		94	%	50 - 130
			p,p-DDE	2012/10/31		102	%	50 - 130
			o,p-DDT	2012/10/31		97	%	50 - 130
			p,p-DDT	2012/10/31		99	%	50 - 130
			Dieldrin	2012/10/31		91	%	50 - 130
			Lindane	2012/10/31		87	%	50 - 130
			Endosulfan I (alpha)	2012/10/31		74	%	50 - 130
			Endosulfan II	2012/10/31		78	%	50 - 130
			Endrin	2012/10/31		91	%	50 - 130
			Heptachlor	2012/10/31		96	%	50 - 130
			Heptachlor epoxide	2012/10/31		82	%	50 - 130
			Hexachlorobenzene	2012/10/31		89	%	50 - 130
			Hexachlorobutadiene	2012/10/31		93	%	50 - 130
			Hexachloroethane	2012/10/31		91	%	50 - 130
			Methoxychlor	2012/10/31		87	%	50 - 130
		RPD	Aroclor 1242	2012/10/31	NC		%	40
			Total PCB	2012/10/31	NC		%	40
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		88	%	50 - 130
			Decachlorobiphenyl	2012/10/31		97	%	50 - 130
			Aldrin	2012/10/31	<0.0020		ug/g	
			a-Chlordane	2012/10/31	<0.0020		ug/g	
			g-Chlordane	2012/10/31	<0.0020		ug/g	
			Chlordane (Total)	2012/10/31	<0.0020		ug/g	
			o,p-DDD	2012/10/31	<0.0020		ug/g	
			p,p-DDD	2012/10/31	<0.0020		ug/g	
			o,p-DDD + p,p-DDD	2012/10/31	<0.0020		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA B

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7804

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017515	NZ1	Method Blank	o,p-DDE	2012/10/31	<0.0020		ug/g	
			p,p-DDE	2012/10/31	<0.0020		ug/g	
			o,p-DDE + p,p-DDE	2012/10/31	<0.0020		ug/g	
			o,p-DDT	2012/10/31	<0.0020		ug/g	
			p,p-DDT	2012/10/31	<0.0020		ug/g	
			o,p-DDT + p,p-DDT	2012/10/31	<0.0020		ug/g	
			Dieldrin	2012/10/31	<0.0020		ug/g	
			Lindane	2012/10/31	<0.0020		ug/g	
			Endosulfan I (alpha)	2012/10/31	<0.0020		ug/g	
			Endosulfan II	2012/10/31	<0.0020		ug/g	
			Total Endosulfan	2012/10/31	<0.0020		ug/g	
			Endrin	2012/10/31	<0.0020		ug/g	
			Heptachlor	2012/10/31	<0.0020		ug/g	
			Heptachlor epoxide	2012/10/31	<0.0020		ug/g	
			Hexachlorobenzene	2012/10/31	<0.0020		ug/g	
			Hexachlorobutadiene	2012/10/31	<0.0050		ug/g	
			Hexachloroethane	2012/10/31	<0.0050		ug/g	
			Methoxychlor	2012/10/31	<0.0050		ug/g	
			Aroclor 1242	2012/10/31	<0.015		ug/g	
			Aroclor 1248	2012/10/31	<0.015		ug/g	
			Aroclor 1254	2012/10/31	<0.015		ug/g	
			Aroclor 1260	2012/10/31	<0.015		ug/g	
			Total PCB	2012/10/31	<0.015		ug/g	
		RPD	Aldrin	2012/10/31	NC		%	40
			a-Chlordane	2012/10/31	NC		%	40
			g-Chlordane	2012/10/31	NC		%	40
			Chlordane (Total)	2012/10/31	NC		%	40
			o,p-DDD	2012/10/31	NC		%	40
			p,p-DDD	2012/10/31	NC		%	40
			o,p-DDD + p,p-DDD	2012/10/31	NC		%	40
			o,p-DDE	2012/10/31	NC		%	40
			p,p-DDE	2012/10/31	8.7 (2)		%	40
			o,p-DDE + p,p-DDE	2012/10/31	8.7 (2)		%	40
			o,p-DDT	2012/10/31	NC		%	40
			p,p-DDT	2012/10/31	0		%	40
			o,p-DDT + p,p-DDT	2012/10/31	0		%	40
			Dieldrin	2012/10/31	NC		%	40
			Lindane	2012/10/31	NC		%	40
			Endosulfan I (alpha)	2012/10/31	NC		%	40
			Endosulfan II	2012/10/31	NC		%	40
			Total Endosulfan	2012/10/31	NC		%	40
			Endrin	2012/10/31	NC		%	40
			Heptachlor	2012/10/31	NC		%	40
			Heptachlor epoxide	2012/10/31	NC		%	40
			Hexachlorobenzene	2012/10/31	NC		%	40
			Hexachlorobutadiene	2012/10/31	NC		%	40
			Hexachloroethane	2012/10/31	NC		%	40
			Methoxychlor	2012/10/31	NC		%	40
			Aroclor 1248	2012/10/31	NC		%	40
			Aroclor 1254	2012/10/31	NC		%	40
			Aroclor 1260	2012/10/31	NC		%	40
3017827	JL2	RPD	Moisture	2012/10/29	2.0		%	20
3019967	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/10/30		93	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/10/30	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/10/30	NC		%	35

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA B

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7804

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3020456	HRE	Matrix Spike	Acid Extractable Antimony (Sb)	2012/10/31		102	%	75 - 125
			Acid Extractable Arsenic (As)	2012/10/31		NC	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/31		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/31		98	%	75 - 125
			Acid Extractable Boron (B)	2012/10/31		87	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/31		103	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/31		103	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/31		103	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/31		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/31		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/31		103	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/31		104	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/31		100	%	75 - 125
			Acid Extractable Silver (Ag)	2012/10/31		101	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/31		94	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/31		106	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/31		103	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/31		104	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/31		99	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/31		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/31		97	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/31		97	%	80 - 120
			Acid Extractable Boron (B)	2012/10/31		90	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/31		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/31		102	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/31		102	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/31		96	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/31		102	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/31		100	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/31		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/31		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/31		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/10/31		91	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/31		105	%	80 - 120
			Acid Extractable Vanadium (V)	2012/10/31		105	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/10/31		100	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/31	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/31	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/31	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/10/31	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/31	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/31	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/31	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/31	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/31	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/31	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/31	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/31	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/31	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/31	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/31	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/31	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/10/31	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/10/31	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/10/31	1.1		%	30

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA B

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7804

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3020456	HRE	RPD	Acid Extractable Arsenic (As)	2012/10/31	5.7		%	30
			Acid Extractable Barium (Ba)	2012/10/31	1.9		%	30
			Acid Extractable Beryllium (Be)	2012/10/31	NC		%	30
			Acid Extractable Boron (B)	2012/10/31	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/31	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/31	4.3		%	30
			Acid Extractable Cobalt (Co)	2012/10/31	2.9		%	30
			Acid Extractable Copper (Cu)	2012/10/31	4.9		%	30
			Acid Extractable Lead (Pb)	2012/10/31	4.2		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/31	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/31	2.5		%	30
			Acid Extractable Selenium (Se)	2012/10/31	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/31	NC		%	30
			Acid Extractable Thallium (Tl)	2012/10/31	NC		%	30
			Acid Extractable Uranium (U)	2012/10/31	2.0		%	30
			Acid Extractable Vanadium (V)	2012/10/31	NC		%	30
			Acid Extractable Zinc (Zn)	2012/10/31	NC		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) The recovery in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.
(2) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

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Validation Signature Page

Maxxam Job #: B2G7804

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS
Your C.O.C. #: 36548243, 365482-43-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/10/31
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2G6821
Received: 2012/10/25, 13:56

Sample Matrix: Soil
Samples Received: 14

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	6	2012/10/29	2012/10/29	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	5	2012/10/30	2012/10/30	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	7	2012/10/29	2012/10/29	CAM SOP-00447	EPA 6020
Acid Extr. Metals (aqua regia) by ICPMS	4	2012/10/30	2012/10/30	CAM SOP-00447	EPA 6020
Moisture	3	N/A	2012/10/26	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	3	2012/10/26	2012/10/29	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B2G6821
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PJ0120	PJ0121	PJ0124		
Sampling Date		2012/10/25 10:00	2012/10/25 10:00	2012/10/25 10:30		
COC Number		365482-43-01	365482-43-01	365482-43-01		
	Units	**B-W-1P**	**B-W-2P**	**B-FL-1P**	**RDL**	**QC Batch**
Inorganics						
Moisture	%	23	29	22	1.0	3016461

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2G6821
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ0111		PJ0112		
Sampling Date			2012/10/25 09:30		2012/10/25 09:30		
COC Number			365482-43-01		365482-43-01		
	Units	**Criteria**	**B-W-1**	**QC Batch**	**B-W-2**	**RDL**	**QC Batch**
Metals							
Hot Water Ext. Boron (B)	ug/g	**-**	0.72	3018891	0.49	0.050	3017840
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.73	3017854	<0.20	0.20	3017854
Acid Extractable Arsenic (As)	ug/g	**18**	**75**	3017854	17	1.0	3017854
Acid Extractable Barium (Ba)	ug/g	**220**	47	3017854	54	0.50	3017854
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.38	3017854	0.34	0.20	3017854
Acid Extractable Boron (B)	ug/g	**36**	<5.0	3017854	<5.0	5.0	3017854
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.22	3017854	0.18	0.10	3017854
Acid Extractable Chromium (Cr)	ug/g	**70**	14	3017854	13	1.0	3017854
Acid Extractable Cobalt (Co)	ug/g	**21**	4.9	3017854	4.6	0.10	3017854
Acid Extractable Copper (Cu)	ug/g	**92**	25	3017854	16	0.50	3017854
Acid Extractable Lead (Pb)	ug/g	**120**	**230**	3017854	61	1.0	3017854
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	3017854	<0.50	0.50	3017854
Acid Extractable Nickel (Ni)	ug/g	**82**	9.1	3017854	7.8	0.50	3017854
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	3017854	0.85	0.50	3017854
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	3017854	<0.20	0.20	3017854
Acid Extractable Thallium (Tl)	ug/g	**1**	0.11	3017854	0.076	0.050	3017854
Acid Extractable Uranium (U)	ug/g	**2.5**	0.43	3017854	0.31	0.050	3017854
Acid Extractable Vanadium (V)	ug/g	**86**	24	3017854	20	5.0	3017854
Acid Extractable Zinc (Zn)	ug/g	**290**	73	3017854	43	5.0	3017854

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G6821
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ0113	PJ0114		PJ0115		
Sampling Date			2012/10/25 09:30	2012/10/25 09:30		2012/10/25 10:00		
COC Number			365482-43-01	365482-43-01		365482-43-01		
	Units	**Criteria**	**B-W-3**	**B-W-4**	**QC Batch**	**B-W-5**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	-	0.71	0.68	3018891	0.67	0.050	3017840
Acid Extractable Antimony (Sb)	ug/g	**1.3**	1.3	0.36	3019050	0.89	0.20	3017854
Acid Extractable Arsenic (As)	ug/g	**18**	**64**	18	3019050	**68**	1.0	3017854
Acid Extractable Barium (Ba)	ug/g	**220**	83	62	3019050	61	0.50	3017854
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.60	0.41	3019050	0.48	0.20	3017854
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	3019050	<5.0	5.0	3017854
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.24	0.31	3019050	0.20	0.10	3017854
Acid Extractable Chromium (Cr)	ug/g	**70**	21	18	3019050	16	1.0	3017854
Acid Extractable Cobalt (Co)	ug/g	**21**	8.1	5.5	3019050	6.0	0.10	3017854
Acid Extractable Copper (Cu)	ug/g	**92**	25	17	3019050	**170**	0.50	3017854
Acid Extractable Lead (Pb)	ug/g	**120**	**200**	59	3019050	**230**	1.0	3017854
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	3019050	<0.50	0.50	3017854
Acid Extractable Nickel (Ni)	ug/g	**82**	16	9.6	3019050	11	0.50	3017854
Acid Extractable Selenium (Se)	ug/g	**1.5**	0.58	0.58	3019050	0.69	0.50	3017854
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	3019050	<0.20	0.20	3017854
Acid Extractable Thallium (Tl)	ug/g	**1**	0.18	0.087	3019050	0.13	0.050	3017854
Acid Extractable Uranium (U)	ug/g	**2.5**	0.42	0.36	3019050	0.41	0.050	3017854
Acid Extractable Vanadium (V)	ug/g	**86**	35	27	3019050	26	5.0	3017854
Acid Extractable Zinc (Zn)	ug/g	**290**	51	48	3019050	43	5.0	3017854

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2G6821
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ0116	PJ0117	PJ0118	PJ0119		
Sampling Date			2012/10/25 10:00	2012/10/25 10:00	2012/10/25 10:00	2012/10/25 10:00		
COC Number			365482-43-01	365482-43-01	365482-43-01	365482-43-01		
	Units	**Criteria**	**B-W-6**	**B-W-7**	**B-W-8**	**B-W-FD**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	-	0.64	0.54	0.77	0.63	0.050	3017840
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.55	0.24	0.22	0.57	0.20	3017854
Acid Extractable Arsenic (As)	ug/g	**18**	**47**	**21**	**22**	**50**	1.0	3017854
Acid Extractable Barium (Ba)	ug/g	**220**	47	62	60	48	0.50	3017854
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.40	0.44	0.41	0.37	0.20	3017854
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	3017854
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.22	0.22	0.23	0.22	0.10	3017854
Acid Extractable Chromium (Cr)	ug/g	**70**	13	16	18	13	1.0	3017854
Acid Extractable Cobalt (Co)	ug/g	**21**	4.4	5.4	4.8	4.6	0.10	3017854
Acid Extractable Copper (Cu)	ug/g	**92**	29	20	17	31	0.50	3017854
Acid Extractable Lead (Pb)	ug/g	**120**	**170**	70	68	**180**	1.0	3017854
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	3017854
Acid Extractable Nickel (Ni)	ug/g	**82**	7.5	9.7	8.1	7.7	0.50	3017854
Acid Extractable Selenium (Se)	ug/g	**1.5**	0.61	0.56	0.56	0.90	0.50	3017854
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	3017854
Acid Extractable Thallium (Tl)	ug/g	**1**	0.092	0.097	0.077	0.095	0.050	3017854
Acid Extractable Uranium (U)	ug/g	**2.5**	0.36	0.37	0.37	0.37	0.050	3017854
Acid Extractable Vanadium (V)	ug/g	**86**	21	23	22	22	5.0	3017854
Acid Extractable Zinc (Zn)	ug/g	**290**	35	47	39	35	5.0	3017854

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QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
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Maxxam Job #: B2G6821
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ0122	PJ0123		
Sampling Date			2012/10/25 10:30	2012/10/25 10:30		
COC Number			365482-43-01	365482-43-01		
	Units	**Criteria**	**B-FL-1**	**B-FL-4**	**RDL**	**QC Batch**
Metals						
Hot Water Ext. Boron (B)	ug/g	**-**	0.53	0.14	0.050	3018891
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.28	<0.20	0.20	3019050
Acid Extractable Arsenic (As)	ug/g	**18**	5.9	3.7	1.0	3019050
Acid Extractable Barium (Ba)	ug/g	**220**	80	51	0.50	3019050
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.47	0.31	0.20	3019050
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5.0	3019050
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.41	0.13	0.10	3019050
Acid Extractable Chromium (Cr)	ug/g	**70**	26	16	1.0	3019050
Acid Extractable Cobalt (Co)	ug/g	**21**	6.2	4.3	0.10	3019050
Acid Extractable Copper (Cu)	ug/g	**92**	16	8.3	0.50	3019050
Acid Extractable Lead (Pb)	ug/g	**120**	15	9.8	1.0	3019050
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	0.50	3019050
Acid Extractable Nickel (Ni)	ug/g	**82**	12	8.5	0.50	3019050
Acid Extractable Selenium (Se)	ug/g	**1.5**	1.2	<0.50	0.50	3019050
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	0.20	3019050
Acid Extractable Thallium (Tl)	ug/g	**1**	0.091	0.072	0.050	3019050
Acid Extractable Uranium (U)	ug/g	**2.5**	0.52	0.33	0.050	3019050
Acid Extractable Vanadium (V)	ug/g	**86**	29	25	5.0	3019050
Acid Extractable Zinc (Zn)	ug/g	**290**	51	27	5.0	3019050

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G6821
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ0120	PJ0121	PJ0124		
Sampling Date			2012/10/25 10:00	2012/10/25 10:00	2012/10/25 10:30		
COC Number			365482-43-01	365482-43-01	365482-43-01		
	Units	**Criteria**	**B-W-1P**	**B-W-2P**	**B-FL-1P**	**RDL**	**QC Batch**
Pesticides & Herbicides							
Aldrin	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
a-Chlordane	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
g-Chlordane	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Chlordane (Total)	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
o,p-DDD	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
p,p-DDD	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0020	<0.0020	<0.0020	0.0020	3015903
o,p-DDE	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
p,p-DDE	ug/g	**0.05**	0.0020	0.0040	<0.0020	0.0020	3015903
o,p-DDE + p,p-DDE	ug/g	**-**	0.0020	0.0040	<0.0020	0.0020	3015903
o,p-DDT	ug/g	**1.4**	<0.0020	<0.0020	<0.0020	0.0020	3015903
p,p-DDT	ug/g	**1.4**	0.0020	<0.0020	<0.0020	0.0020	3015903
o,p-DDT + p,p-DDT	ug/g	**-**	0.0020	<0.0020	<0.0020	0.0020	3015903
DDT+ Metabolites	ug/g	**-**	0.0040	0.0040	<0.0020	0.0020	3015903
Dieldrin	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Lindane	ug/g	**0.01**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Endosulfan I (alpha)	ug/g	**0.04**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Endosulfan II	ug/g	**0.04**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Total Endosulfan	ug/g	**-**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Endrin	ug/g	**0.04**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Heptachlor	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Heptachlor epoxide	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Hexachlorobenzene	ug/g	**0.01**	<0.0020	<0.0020	<0.0020	0.0020	3015903
Methoxychlor	ug/g	**0.05**	<0.0050	<0.0050	<0.0050	0.0050	3015903
Aroclor 1016	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3015903
Aroclor 1221	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3015903
Aroclor 1232	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3015903
Aroclor 1242	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3015903
Aroclor 1248	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3015903
Aroclor 1254	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3015903

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B2G6821
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ0120	PJ0121	PJ0124		
Sampling Date			2012/10/25 10:00	2012/10/25 10:00	2012/10/25 10:30		
COC Number			365482-43-01	365482-43-01	365482-43-01		
	Units	**Criteria**	**B-W-1P**	**B-W-2P**	**B-FL-1P**	**RDL**	**QC Batch**
Aroclor 1260	ug/g	-	<0.015	<0.015	<0.015	0.015	3015903
Aroclor 1262	ug/g	-	<0.015	<0.015	<0.015	0.015	3015903
Aroclor 1268	ug/g	-	<0.015	<0.015	<0.015	0.015	3015903
Total PCB	ug/g	**0.3**	<0.015	<0.015	<0.015	0.015	3015903
alpha-BHC	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	3015903
beta-BHC	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	3015903
delta-BHC	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	3015903
Endosulfan sulfate	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	3015903
Endrin aldehyde	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	3015903
Endrin ketone	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	3015903
Mirex	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	3015903
Octachlorostyrene	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	3015903
Toxaphene	ug/g	-	<0.080	<0.080	<0.080	0.080	3015903
Surrogate Recovery (%)							
2,4,5,6-Tetrachloro-m-xylene	%	-	89	91	98		3015903
Decachlorobiphenyl	%	-	69	71	78		3015903

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G6821
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS

Package 1	4.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Revised Report (2012/10/31): Additional parameters have been included in the metals scan.

Results relate only to the items tested.

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS

Quality Assurance Report

Maxxam Job Number: MB2G6821

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3015903	MAK	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2012/10/29		91	%	50 - 130
			Decachlorobiphenyl	2012/10/29		84	%	50 - 130
			Aldrin	2012/10/29		92	%	50 - 130
			a-Chlordane	2012/10/29		90	%	50 - 130
			g-Chlordane	2012/10/29		92	%	50 - 130
			o,p-DDD	2012/10/29		92	%	50 - 130
			p,p-DDD	2012/10/29		92	%	50 - 130
			o,p-DDE	2012/10/29		92	%	50 - 130
			p,p-DDE	2012/10/29		90	%	50 - 130
			o,p-DDT	2012/10/29		104	%	50 - 130
			p,p-DDT	2012/10/29		75	%	50 - 130
			Dieldrin	2012/10/29		89	%	50 - 130
			Lindane	2012/10/29		87	%	50 - 130
			Endosulfan I (alpha)	2012/10/29		73	%	50 - 130
			Endosulfan II	2012/10/29		120	%	50 - 130
			Endrin	2012/10/29		99	%	50 - 130
			Heptachlor	2012/10/29		96	%	50 - 130
			Heptachlor epoxide	2012/10/29		85	%	50 - 130
			Hexachlorobenzene	2012/10/29		89	%	50 - 130
			Methoxychlor	2012/10/29		86	%	50 - 130
			alpha-BHC	2012/10/29		94	%	30 - 130
			beta-BHC	2012/10/29		89	%	30 - 130
			delta-BHC	2012/10/29		88	%	30 - 130
			Endosulfan sulfate	2012/10/29		80	%	30 - 130
			Endrin aldehyde	2012/10/29		75	%	30 - 130
			Endrin ketone	2012/10/29		88	%	30 - 130
			Mirex	2012/10/29		86	%	30 - 130
			Octachlorostyrene	2012/10/29		96	%	30 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/29		93	%	50 - 130
			Decachlorobiphenyl	2012/10/29		74	%	50 - 130
			Aldrin	2012/10/29		89	%	50 - 130
			a-Chlordane	2012/10/29		82	%	50 - 130
			g-Chlordane	2012/10/29		69	%	50 - 130
			o,p-DDD	2012/10/29		66	%	50 - 130
			p,p-DDD	2012/10/29		67	%	50 - 130
			o,p-DDE	2012/10/29		92	%	50 - 130
			p,p-DDE	2012/10/29		86	%	50 - 130
			o,p-DDT	2012/10/29		98	%	50 - 130
			p,p-DDT	2012/10/29		86	%	50 - 130
			Dieldrin	2012/10/29		67	%	50 - 130
			Lindane	2012/10/29		66	%	50 - 130
			Endosulfan I (alpha)	2012/10/29		55	%	50 - 130
			Endosulfan II	2012/10/29		57	%	50 - 130
			Endrin	2012/10/29		71	%	50 - 130
			Heptachlor	2012/10/29		96	%	50 - 130
			Heptachlor epoxide	2012/10/29		66	%	50 - 130
			Hexachlorobenzene	2012/10/29		82	%	50 - 130
			Methoxychlor	2012/10/29		72	%	50 - 130
		RPD	Aroclor 1242	2012/10/29	NC		%	40
			Total PCB	2012/10/29	NC		%	40
		Spiked Blank	alpha-BHC	2012/10/29		91	%	30 - 130
			beta-BHC	2012/10/29		67	%	30 - 130
			delta-BHC	2012/10/29		71	%	30 - 130
			Endosulfan sulfate	2012/10/29		72	%	30 - 130
			Endrin aldehyde	2012/10/29		71	%	30 - 130

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6821

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3015903 MAK	Spiked Blank	Endrin ketone	2012/10/29		63	%	30 - 130
		Mirex	2012/10/29		86	%	30 - 130
		Octachlorostyrene	2012/10/29		89	%	30 - 130
	RPD	Toxaphene	2012/10/29	NC		%	50
	Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/29		88	%	50 - 130
		Decachlorobiphenyl	2012/10/29		73	%	50 - 130
		Aldrin	2012/10/29	<0.0020		ug/g	
		a-Chlordane	2012/10/29	<0.0020		ug/g	
		g-Chlordane	2012/10/29	<0.0020		ug/g	
		Chlordane (Total)	2012/10/29	<0.0020		ug/g	
		o,p-DDD	2012/10/29	<0.0020		ug/g	
		p,p-DDD	2012/10/29	<0.0020		ug/g	
		o,p-DDD + p,p-DDD	2012/10/29	<0.0020		ug/g	
		o,p-DDE	2012/10/29	<0.0020		ug/g	
		p,p-DDE	2012/10/29	<0.0020		ug/g	
		o,p-DDE + p,p-DDE	2012/10/29	<0.0020		ug/g	
		o,p-DDT	2012/10/29	<0.0020		ug/g	
		p,p-DDT	2012/10/29	<0.0020		ug/g	
		o,p-DDT + p,p-DDT	2012/10/29	<0.0020		ug/g	
		DDT+ Metabolites	2012/10/29	<0.0020		ug/g	
		Dieldrin	2012/10/29	<0.0020		ug/g	
		Lindane	2012/10/29	<0.0020		ug/g	
		Endosulfan I (alpha)	2012/10/29	<0.0020		ug/g	
		Endosulfan II	2012/10/29	<0.0020		ug/g	
		Total Endosulfan	2012/10/29	<0.0020		ug/g	
		Endrin	2012/10/29	<0.0020		ug/g	
		Heptachlor	2012/10/29	<0.0020		ug/g	
		Heptachlor epoxide	2012/10/29	<0.0020		ug/g	
		Hexachlorobenzene	2012/10/29	<0.0020		ug/g	
		Methoxychlor	2012/10/29	<0.0050		ug/g	
		Aroclor 1016	2012/10/29	<0.015		ug/g	
		Aroclor 1221	2012/10/29	<0.015		ug/g	
		Aroclor 1232	2012/10/29	<0.015		ug/g	
		Aroclor 1242	2012/10/29	<0.015		ug/g	
		Aroclor 1248	2012/10/29	<0.015		ug/g	
		Aroclor 1254	2012/10/29	<0.015		ug/g	
		Aroclor 1260	2012/10/29	<0.015		ug/g	
		Aroclor 1262	2012/10/29	<0.015		ug/g	
		Aroclor 1268	2012/10/29	<0.015		ug/g	
		Total PCB	2012/10/29	<0.015		ug/g	
		alpha-BHC	2012/10/29	<0.0020		ug/g	
		beta-BHC	2012/10/29	<0.0020		ug/g	
		delta-BHC	2012/10/29	<0.0020		ug/g	
		Endosulfan sulfate	2012/10/29	<0.0020		ug/g	
		Endrin aldehyde	2012/10/29	<0.0020		ug/g	
		Endrin ketone	2012/10/29	<0.0020		ug/g	
		Mirex	2012/10/29	<0.0020		ug/g	
		Octachlorostyrene	2012/10/29	<0.0020		ug/g	
		Toxaphene	2012/10/29	<0.080		ug/g	
	RPD	Aldrin	2012/10/29	NC		%	40
		a-Chlordane	2012/10/29	NC		%	40
		g-Chlordane	2012/10/29	NC		%	40
		Chlordane (Total)	2012/10/29	NC		%	40
		o,p-DDD	2012/10/29	NC		%	40
		p,p-DDD	2012/10/29	NC		%	40

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6821

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3015903	MAK	RPD	o,p-DDD + p,p-DDD	2012/10/29	NC		%	40
			o,p-DDE	2012/10/29	NC		%	40
			p,p-DDE	2012/10/29	NC		%	40
			o,p-DDE + p,p-DDE	2012/10/29	NC		%	40
			o,p-DDT	2012/10/29	NC		%	40
			p,p-DDT	2012/10/29	NC		%	40
			o,p-DDT + p,p-DDT	2012/10/29	NC		%	40
			Dieldrin	2012/10/29	NC		%	40
			Lindane	2012/10/29	NC		%	40
			Endosulfan I (alpha)	2012/10/29	NC		%	40
			Endosulfan II	2012/10/29	NC		%	40
			Total Endosulfan	2012/10/29	NC		%	40
			Endrin	2012/10/29	NC		%	40
			Heptachlor	2012/10/29	NC		%	40
			Heptachlor epoxide	2012/10/29	NC		%	40
			Hexachlorobenzene	2012/10/29	NC		%	40
			Methoxychlor	2012/10/29	NC		%	40
			Aroclor 1248	2012/10/29	NC		%	40
			Aroclor 1254	2012/10/29	NC		%	40
			Aroclor 1260	2012/10/29	NC		%	40
3016461	THT	RPD	Moisture	2012/10/26	0.5		%	20
3017840	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/10/29		95	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/10/29	<0.050		ug/g	
3017854	JBW	Matrix Spike	Acid Extractable Antimony (Sb)	2012/10/29		109	%	75 - 125
			Acid Extractable Arsenic (As)	2012/10/29		109	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/29		105	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/29		108	%	75 - 125
			Acid Extractable Boron (B)	2012/10/29		101	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/29		108	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/29		105	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/29		104	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/29		99	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/29		103	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/29		109	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/29		103	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/29		105	%	75 - 125
			Acid Extractable Silver (Ag)	2012/10/29		104	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/29		96	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/29		105	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/29		106	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/29		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/29		106	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/29		106	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/29		105	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/29		105	%	80 - 120
			Acid Extractable Boron (B)	2012/10/29		101	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/29		106	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/29		103	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/29		103	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/29		102	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/29		104	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/29		103	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/29		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/29		102	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/29		104	%	80 - 120

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6821

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017854	JBW	Spiked Blank	Acid Extractable Thallium (Tl)	2012/10/29		95	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/29		104	%	80 - 120
			Acid Extractable Vanadium (V)	2012/10/29		102	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/10/29		109	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/29	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/29	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/29	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/10/29	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/29	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/29	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/29	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/29	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/29	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/29	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/29	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/29	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/29	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/29	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/29	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/29	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/10/29	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/10/29	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/10/29	NC		%	30
			Acid Extractable Arsenic (As)	2012/10/29	NC		%	30
			Acid Extractable Barium (Ba)	2012/10/29	6.0		%	30
			Acid Extractable Beryllium (Be)	2012/10/29	NC		%	30
			Acid Extractable Boron (B)	2012/10/29	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/29	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/29	NC		%	30
			Acid Extractable Cobalt (Co)	2012/10/29	10.1		%	30
			Acid Extractable Copper (Cu)	2012/10/29	4.0		%	30
			Acid Extractable Lead (Pb)	2012/10/29	NC		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/29	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/29	1.9		%	30
			Acid Extractable Selenium (Se)	2012/10/29	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/29	NC		%	30
			Acid Extractable Thallium (Tl)	2012/10/29	NC		%	30
			Acid Extractable Uranium (U)	2012/10/29	NC		%	30
			Acid Extractable Vanadium (V)	2012/10/29	NC		%	30
			Acid Extractable Zinc (Zn)	2012/10/29	2.1		%	30
3018891	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/10/30		97	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/10/30	<0.050		ug/g	
3019050	JBW	Matrix Spike	Acid Extractable Antimony (Sb)	2012/10/30		107	%	75 - 125
			Acid Extractable Arsenic (As)	2012/10/30		101	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/30		NC (1)	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/30		101	%	75 - 125
			Acid Extractable Boron (B)	2012/10/30		92	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/30		107	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/30		104	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/30		105	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/30		100	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/30		NC (1)	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/30		106	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/30		104	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/30		104	%	75 - 125

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6821

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3019050	JBW	Matrix Spike	Acid Extractable Silver (Ag)	2012/10/30		102	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/30		94	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/30		106	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/30		109	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/30		NC (1)	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/30		105	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/30		101	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/30		101	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/30		103	%	80 - 120
			Acid Extractable Boron (B)	2012/10/30		97	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/30		106	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/30		105	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/30		106	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/30		102	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/30		105	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/30		103	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/30		105	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/30		104	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/30		102	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/10/30		93	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/30		104	%	80 - 120
			Acid Extractable Vanadium (V)	2012/10/30		109	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/10/30		107	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/30	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/30	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/30	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/10/30	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/30	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/30	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/30	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/30	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/30	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/30	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/30	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/30	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/30	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/30	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/30	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/30	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/10/30	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/10/30	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/10/30	NC		%	30
			Acid Extractable Arsenic (As)	2012/10/30	NC		%	30
			Acid Extractable Barium (Ba)	2012/10/30	0.04		%	30
			Acid Extractable Beryllium (Be)	2012/10/30	NC		%	30
			Acid Extractable Boron (B)	2012/10/30	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/30	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/30	1.8		%	30
			Acid Extractable Cobalt (Co)	2012/10/30	4.0		%	30
			Acid Extractable Copper (Cu)	2012/10/30	0.4		%	30
			Acid Extractable Lead (Pb)	2012/10/30	2.5		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/30	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/30	1.2		%	30
			Acid Extractable Selenium (Se)	2012/10/30	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/30	NC		%	30

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6821

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3019050	JBW	RPD	Acid Extractable Thallium (Tl)	2012/10/30	NC		%	30
			Acid Extractable Uranium (U)	2012/10/30	1.9		%	30
			Acid Extractable Vanadium (V)	2012/10/30	NC		%	30
			Acid Extractable Zinc (Zn)	2012/10/30	0.7		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) The recovery in the matrix spike was not calculated (NC). Spiked concentration was less than 2x that native to the sample.

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Validation Signature Page

Maxxam Job #: B2G6821

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Cristina Carriere, Scientific Services

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

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Your Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA B CONF. SAMPLES
Your C.O.C. #: 36548237, 365482-37-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/02

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H1246
Received: 2012/11/01, 14:21

Sample Matrix: Soil
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	12	2012/11/02	2012/11/02	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	12	2012/11/02	2012/11/02	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2H1246
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA B CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PL3746	PL3747	PL3748	PL3749		
Sampling Date			2012/10/31 14:00	2012/10/31 14:00	2012/10/31 14:00	2012/10/31 14:00		
COC Number			365482-37-01	365482-37-01	365482-37-01	365482-37-01		
	Units	**Criteria**	**B-W-1C1**	**B-W-1C2**	**B-W-1C3**	**B-W-3C1**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.99	0.72	1.1	0.96	0.050	3023631
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.47	0.28	0.40	0.55	0.20	3023568
Acid Extractable Arsenic (As)	ug/g	**18**	**32**	18	**25**	**38**	1.0	3023568
Acid Extractable Barium (Ba)	ug/g	**220**	41	52	63	59	0.50	3023568
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.35	0.40	0.47	0.49	0.20	3023568
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5.2	<5.0	5.0	3023568
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.23	0.19	0.25	0.17	0.10	3023568
Acid Extractable Chromium (Cr)	ug/g	**70**	11	14	16	15	1.0	3023568
Acid Extractable Cobalt (Co)	ug/g	**21**	4.1	4.6	5.8	5.6	0.10	3023568
Acid Extractable Copper (Cu)	ug/g	**92**	20	14	26	33	0.50	3023568
Acid Extractable Lead (Pb)	ug/g	**120**	99	51	72	120	1.0	3023568
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	3023568
Acid Extractable Nickel (Ni)	ug/g	**82**	7.5	8.2	11	10	0.50	3023568
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	3023568
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	3023568
Acid Extractable Thallium (Tl)	ug/g	**1**	0.067	0.073	0.096	0.098	0.050	3023568
Acid Extractable Uranium (U)	ug/g	**2.5**	0.36	0.37	0.37	0.36	0.050	3023568
Acid Extractable Vanadium (V)	ug/g	**86**	20	22	23	24	5.0	3023568
Acid Extractable Zinc (Zn)	ug/g	**290**	32	32	46	38	5.0	3023568

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2H1246
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA B CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PL3750	PL3751	PL3752	PL3753		
Sampling Date			2012/10/31 14:00	2012/10/31 14:00	2012/10/31 14:00	2012/10/31 14:00		
COC Number			365482-37-01	365482-37-01	365482-37-01	365482-37-01		
	Units	**Criteria**	**B-W-3C2**	**B-W-3C3**	**B-W-5C1**	**B-W-5C2**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	-	1.1	0.56	0.87	1.2	0.050	3023631
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.62	0.24	0.24	0.66	0.20	3023568
Acid Extractable Arsenic (As)	ug/g	**18**	**39**	15	16	**30**	1.0	3023568
Acid Extractable Barium (Ba)	ug/g	**220**	61	68	40	58	0.50	3023568
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.56	0.48	0.38	0.52	0.20	3023568
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	3023568
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.17	0.27	0.18	0.19	0.10	3023568
Acid Extractable Chromium (Cr)	ug/g	**70**	15	18	12	14	1.0	3023568
Acid Extractable Cobalt (Co)	ug/g	**21**	5.8	5.4	4.0	5.4	0.10	3023568
Acid Extractable Copper (Cu)	ug/g	**92**	24	21	16	22	0.50	3023568
Acid Extractable Lead (Pb)	ug/g	**120**	**130**	38	47	97	1.0	3023568
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	3023568
Acid Extractable Nickel (Ni)	ug/g	**82**	12	9.5	7.1	10	0.50	3023568
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	0.53	<0.50	<0.50	0.50	3023568
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	3023568
Acid Extractable Thallium (Tl)	ug/g	**1**	0.12	0.091	0.067	0.12	0.050	3023568
Acid Extractable Uranium (U)	ug/g	**2.5**	0.40	0.42	0.31	0.36	0.050	3023568
Acid Extractable Vanadium (V)	ug/g	**86**	24	24	21	24	5.0	3023568
Acid Extractable Zinc (Zn)	ug/g	**290**	41	42	29	37	5.0	3023568

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H1246
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA B CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PL3754	PL3755	PL3756	PL3757		
Sampling Date			2012/10/31 14:00	2012/11/01 13:30	2012/11/01 13:30	2012/11/01 13:30		
COC Number			365482-37-01	365482-37-01	365482-37-01	365482-37-01		
	Units	**Criteria**	**B-W-5C3**	**B-FL-3C1**	**B-FL-3C2**	**B-FL-3C3**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.86	0.99	0.63	1.0	0.050	3023631
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.58	0.55	0.47	0.28	0.20	3023568
Acid Extractable Arsenic (As)	ug/g	**18**	**46**	**46**	**35**	17	1.0	3023568
Acid Extractable Barium (Ba)	ug/g	**220**	64	67	69	96	0.50	3023568
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.50	0.48	0.47	0.71	0.20	3023568
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	5.5	5.0	3023568
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.22	0.23	0.25	0.27	0.10	3023568
Acid Extractable Chromium (Cr)	ug/g	**70**	15	17	16	20	1.0	3023568
Acid Extractable Cobalt (Co)	ug/g	**21**	6.0	6.3	5.8	8.3	0.10	3023568
Acid Extractable Copper (Cu)	ug/g	**92**	64	82	37	29	0.50	3023568
Acid Extractable Lead (Pb)	ug/g	**120**	**130**	**160**	110	50	1.0	3023568
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	3023568
Acid Extractable Nickel (Ni)	ug/g	**82**	11	11	10	18	0.50	3023568
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	3023568
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	3023568
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	0.10	0.093	0.13	0.050	3023568
Acid Extractable Uranium (U)	ug/g	**2.5**	0.36	0.42	0.36	0.41	0.050	3023568
Acid Extractable Vanadium (V)	ug/g	**86**	25	24	24	32	5.0	3023568
Acid Extractable Zinc (Zn)	ug/g	**290**	44	57	43	53	5.0	3023568

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H1246
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA B CONF. SAMPLES

Package 1	8.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA B CONF. SAMPLES

Quality Assurance Report

Maxxam Job Number: MB2H1246

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3023568	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/02		94	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/02		101	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/02		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/02		101	%	75 - 125
			Acid Extractable Boron (B)	2012/11/02		91	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/02		99	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/02		97	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/02		100	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/02		99	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/02		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/02		96	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/02		102	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/02		99	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/02		101	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/02		94	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/02		99	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/02		98	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/02		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/02		96	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/02		101	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/02		104	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/02		98	%	80 - 120
			Acid Extractable Boron (B)	2012/11/02		95	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/02		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/02		94	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/02		98	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/02		97	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/02		97	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/02		95	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/02		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/02		103	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/02		100	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/02		93	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/02		99	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/02		93	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/02		103	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/02	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/02	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/02	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/02	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/02	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/02	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/02	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/02	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/02	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/02	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/02	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/02	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/02	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/02	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/02	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/02	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/02	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/02	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/02	NC		%	30

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA B CONF. SAMPLES

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H1246

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3023568	VIV	RPD	Acid Extractable Arsenic (As)	2012/11/02	10.0		%	30
			Acid Extractable Barium (Ba)	2012/11/02	4.5		%	30
			Acid Extractable Beryllium (Be)	2012/11/02	NC		%	30
			Acid Extractable Boron (B)	2012/11/02	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/02	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/02	7.8		%	30
			Acid Extractable Cobalt (Co)	2012/11/02	9.1		%	30
			Acid Extractable Copper (Cu)	2012/11/02	6.9		%	30
			Acid Extractable Lead (Pb)	2012/11/02	14.7		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/02	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/02	5.0		%	30
			Acid Extractable Selenium (Se)	2012/11/02	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/02	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/02	NC		%	30
			Acid Extractable Uranium (U)	2012/11/02	3.1		%	30
			Acid Extractable Vanadium (V)	2012/11/02	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/02	NC		%	30
3023631	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/02		95	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/02	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/11/02	NC		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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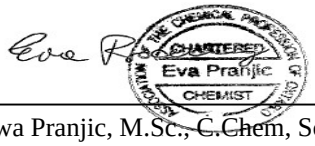
Validation Signature Page

Maxxam Job #: B2H1246

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

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Your Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Your C.O.C. #: 36548241, 365482-41-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/10/31

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2G7788
Received: 2012/10/26, 14:53

Sample Matrix: Soil
Samples Received: 17

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	14	2012/10/30	2012/10/30	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	6	2012/10/30	2012/10/30	CAM SOP-00447	EPA 6020
Acid Extr. Metals (aqua regia) by ICPMS	8	2012/10/31	2012/10/31	CAM SOP-00447	EPA 6020
Moisture	3	N/A	2012/10/27	CAM SOP-00445	R.Carter,1993
Moisture	14	N/A	2012/10/29	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	3	2012/10/29	2012/10/31	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2G7788
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PJ4909	PJ4910	PJ4911	PJ4912	PJ4913		
Sampling Date		2012/10/26 13:00	2012/10/26 13:00	2012/10/26 13:00	2012/10/26 13:00	2012/10/26 13:00		
COC Number		365482-41-01	365482-41-01	365482-41-01	365482-41-01	365482-41-01		
	Units	**C-W-1**	**C-W-2**	**C-W-3**	**C-W-4**	**C-W-5**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	30	24	23	17	23	1.0	3017801

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		PJ4914	PJ4915	PJ4916	PJ4917		PJ4918		
Sampling Date		2012/10/26 13:00	2012/10/26 13:00	2012/10/26 13:00	2012/10/26 13:00		2012/10/26 13:00		
COC Number		365482-41-01	365482-41-01	365482-41-01	365482-41-01		365482-41-01		
	Units	**C-W-6**	**C-W-7**	**C-W-8**	**C-W-FD**	**QC Batch**	**C-W-1P**	**RDL**	**QC Batch**
Inorganics									
Moisture	%	26	24	22	17	3017801	24	1.0	3017244

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		PJ4919		PJ4920	PJ4921	PJ4922	PJ4923		
Sampling Date		2012/10/26 13:30		2012/10/26 13:30	2012/10/26 13:30	2012/10/26 13:30	2012/10/26 13:30		
COC Number		365482-41-01		365482-41-01	365482-41-01	365482-41-01	365482-41-01		
	Units	**C-W-2P**	**QC Batch**	**C-FL-1**	**C-FL-2**	**C-FL-3**	**C-FL-4**	**RDL**	**QC Batch**
Inorganics									
Moisture	%	23	3017244	16	17	25	24	1.0	3017801

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2G7788
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PJ4924		PJ4925		
Sampling Date		2012/10/26 13:30		2012/10/26 13:30		
COC Number		365482-41-01		365482-41-01		
	Units	**C-FL-1P**	**QC Batch**	**C-FL-FD**	**RDL**	**QC Batch**
Inorganics						
Moisture	%	20	3017244	26	1.0	3017801

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2G7788
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ4909	PJ4910		PJ4911		
Sampling Date			2012/10/26 13:00	2012/10/26 13:00		2012/10/26 13:00		
COC Number			365482-41-01	365482-41-01		365482-41-01		
	Units	**Criteria**	**C-W-1**	**C-W-2**	**QC Batch**	**C-W-3**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	-	1.1	0.71	3019631	0.37	0.050	3019631
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.63	0.49	3020456	0.88	0.20	3019214
Acid Extractable Arsenic (As)	ug/g	**18**	**48**	**32**	3020456	**55**	1.0	3019214
Acid Extractable Barium (Ba)	ug/g	**220**	31	28	3020456	34	0.50	3019214
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.29	0.30	3020456	0.21	0.20	3019214
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	3020456	<5.0	5.0	3019214
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.21	0.15	3020456	0.22	0.10	3019214
Acid Extractable Chromium (Cr)	ug/g	**70**	9.2	10	3020456	10	1.0	3019214
Acid Extractable Cobalt (Co)	ug/g	**21**	2.9	3.2	3020456	3.2	0.10	3019214
Acid Extractable Copper (Cu)	ug/g	**92**	20	17	3020456	34	0.50	3019214
Acid Extractable Lead (Pb)	ug/g	**120**	**160**	100	3020456	**170**	1.0	3019214
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	3020456	<0.50	0.50	3019214
Acid Extractable Nickel (Ni)	ug/g	**82**	5.1	5.6	3020456	5.7	0.50	3019214
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	3020456	<0.50	0.50	3019214
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	3020456	<0.20	0.20	3019214
Acid Extractable Thallium (Tl)	ug/g	**1**	0.067	0.063	3020456	0.094	0.050	3019214
Acid Extractable Uranium (U)	ug/g	**2.5**	0.67	0.34	3020456	0.44	0.050	3019214
Acid Extractable Vanadium (V)	ug/g	**86**	21	25	3020456	23	5.0	3019214
Acid Extractable Zinc (Zn)	ug/g	**290**	34	24	3020456	28	5.0	3019214

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2G7788
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ4912	PJ4913		PJ4914		
Sampling Date			2012/10/26 13:00	2012/10/26 13:00		2012/10/26 13:00		
COC Number			365482-41-01	365482-41-01		365482-41-01		
	Units	**Criteria**	**C-W-4**	**C-W-5**	**QC Batch**	**C-W-6**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.38	0.32	3019631	0.68	0.050	3019631
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.44	1.1	3020456	1.3	0.20	3019214
Acid Extractable Arsenic (As)	ug/g	**18**	18	**66**	3020456	**83**	1.0	3019214
Acid Extractable Barium (Ba)	ug/g	**220**	30	30	3020456	33	0.50	3019214
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.28	0.23	3020456	0.28	0.20	3019214
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	3020456	<5.0	5.0	3019214
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.13	0.14	3020456	0.17	0.10	3019214
Acid Extractable Chromium (Cr)	ug/g	**70**	9.6	10	3020456	11	1.0	3019214
Acid Extractable Cobalt (Co)	ug/g	**21**	3.0	3.1	3020456	3.3	0.10	3019214
Acid Extractable Copper (Cu)	ug/g	**92**	15	28	3020456	29	0.50	3019214
Acid Extractable Lead (Pb)	ug/g	**120**	59	**160**	3020456	**220**	1.0	3019214
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	3020456	<0.50	0.50	3019214
Acid Extractable Nickel (Ni)	ug/g	**82**	4.9	5.6	3020456	5.7	0.50	3019214
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	3020456	<0.50	0.50	3019214
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	3020456	<0.20	0.20	3019214
Acid Extractable Thallium (Tl)	ug/g	**1**	0.051	0.067	3020456	0.086	0.050	3019214
Acid Extractable Uranium (U)	ug/g	**2.5**	0.34	0.47	3020456	0.38	0.050	3019214
Acid Extractable Vanadium (V)	ug/g	**86**	23	23	3020456	23	5.0	3019214
Acid Extractable Zinc (Zn)	ug/g	**290**	20	24	3020456	26	5.0	3019214

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7788
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ4915		PJ4916		
Sampling Date			2012/10/26 13:00		2012/10/26 13:00		
COC Number			365482-41-01		365482-41-01		
	Units	**Criteria**	**C-W-7**	**QC Batch**	**C-W-8**	**RDL**	**QC Batch**
Metals							
Hot Water Ext. Boron (B)	ug/g	**-**	0.45	3019631	0.44	0.050	3019631
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.73	3019214	0.80	0.20	3020456
Acid Extractable Arsenic (As)	ug/g	**18**	**38**	3019214	**54**	1.0	3020456
Acid Extractable Barium (Ba)	ug/g	**220**	30	3019214	38	0.50	3020456
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.25	3019214	0.30	0.20	3020456
Acid Extractable Boron (B)	ug/g	**36**	<5.0	3019214	<5.0	5.0	3020456
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.15	3019214	0.22	0.10	3020456
Acid Extractable Chromium (Cr)	ug/g	**70**	9.7	3019214	11	1.0	3020456
Acid Extractable Cobalt (Co)	ug/g	**21**	3.0	3019214	3.6	0.10	3020456
Acid Extractable Copper (Cu)	ug/g	**92**	23	3019214	34	0.50	3020456
Acid Extractable Lead (Pb)	ug/g	**120**	120	3019214	**210**	1.0	3020456
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	3019214	<0.50	0.50	3020456
Acid Extractable Nickel (Ni)	ug/g	**82**	5.3	3019214	6.6	0.50	3020456
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	3019214	<0.50	0.50	3020456
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	3019214	<0.20	0.20	3020456
Acid Extractable Thallium (Tl)	ug/g	**1**	0.066	3019214	0.078	0.050	3020456
Acid Extractable Uranium (U)	ug/g	**2.5**	0.35	3019214	0.95	0.050	3020456
Acid Extractable Vanadium (V)	ug/g	**86**	22	3019214	24	5.0	3020456
Acid Extractable Zinc (Zn)	ug/g	**290**	24	3019214	31	5.0	3020456

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7788
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ4917		PJ4920	PJ4921		
Sampling Date			2012/10/26 13:00		2012/10/26 13:30	2012/10/26 13:30		
COC Number			365482-41-01		365482-41-01	365482-41-01		
	Units	**Criteria**	**C-W-FD**	**QC Batch**	**C-FL-1**	**C-FL-2**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.37	3019631	0.38	0.20	0.050	3019631
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.52	3019214	0.60	0.35	0.20	3020456
Acid Extractable Arsenic (As)	ug/g	**18**	18	3019214	**30**	11	1.0	3020456
Acid Extractable Barium (Ba)	ug/g	**220**	29	3019214	28	24	0.50	3020456
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.28	3019214	0.21	0.20	0.20	3020456
Acid Extractable Boron (B)	ug/g	**36**	<5.0	3019214	<5.0	<5.0	5.0	3020456
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.13	3019214	0.13	0.11	0.10	3020456
Acid Extractable Chromium (Cr)	ug/g	**70**	9.2	3019214	9.8	8.4	1.0	3020456
Acid Extractable Cobalt (Co)	ug/g	**21**	2.9	3019214	3.3	2.4	0.10	3020456
Acid Extractable Copper (Cu)	ug/g	**92**	15	3019214	13	8.2	0.50	3020456
Acid Extractable Lead (Pb)	ug/g	**120**	58	3019214	72	34	1.0	3020456
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	3019214	<0.50	<0.50	0.50	3020456
Acid Extractable Nickel (Ni)	ug/g	**82**	4.9	3019214	5.6	4.1	0.50	3020456
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	3019214	<0.50	<0.50	0.50	3020456
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	3019214	<0.20	<0.20	0.20	3020456
Acid Extractable Thallium (Tl)	ug/g	**1**	0.054	3019214	<0.050	<0.050	0.050	3020456
Acid Extractable Uranium (U)	ug/g	**2.5**	0.32	3019214	0.32	0.24	0.050	3020456
Acid Extractable Vanadium (V)	ug/g	**86**	22	3019214	23	21	5.0	3020456
Acid Extractable Zinc (Zn)	ug/g	**290**	21	3019214	23	16	5.0	3020456

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7788
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ4922		PJ4923	PJ4925		
Sampling Date			2012/10/26 13:30		2012/10/26 13:30	2012/10/26 13:30		
COC Number			365482-41-01		365482-41-01	365482-41-01		
	Units	**Criteria**	**C-FL-3**	**QC Batch**	**C-FL-4**	**C-FL-FD**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	-	0.45	3019631	0.28	0.28	0.050	3019631
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.89	3020456	0.95	1.1	0.20	3019214
Acid Extractable Arsenic (As)	ug/g	**18**	**65**	3020456	**67**	**77**	1.0	3019214
Acid Extractable Barium (Ba)	ug/g	**220**	33	3020456	31	34	0.50	3019214
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.32	3020456	0.30	0.32	0.20	3019214
Acid Extractable Boron (B)	ug/g	**36**	<5.0	3020456	<5.0	<5.0	5.0	3019214
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.20	3020456	0.16	0.18	0.10	3019214
Acid Extractable Chromium (Cr)	ug/g	**70**	11	3020456	11	12	1.0	3019214
Acid Extractable Cobalt (Co)	ug/g	**21**	3.4	3020456	3.7	3.8	0.10	3019214
Acid Extractable Copper (Cu)	ug/g	**92**	35	3020456	35	39	0.50	3019214
Acid Extractable Lead (Pb)	ug/g	**120**	**200**	3020456	**200**	**230**	1.0	3019214
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	3020456	<0.50	<0.50	0.50	3019214
Acid Extractable Nickel (Ni)	ug/g	**82**	5.5	3020456	6.6	6.8	0.50	3019214
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	3020456	0.51	<0.50	0.50	3019214
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	3020456	<0.20	<0.20	0.20	3019214
Acid Extractable Thallium (Tl)	ug/g	**1**	0.071	3020456	0.076	0.081	0.050	3019214
Acid Extractable Uranium (U)	ug/g	**2.5**	0.41	3020456	0.42	0.46	0.050	3019214
Acid Extractable Vanadium (V)	ug/g	**86**	24	3020456	24	26	5.0	3019214
Acid Extractable Zinc (Zn)	ug/g	**290**	28	3020456	25	26	5.0	3019214

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7788
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ4918	PJ4919	PJ4924		
Sampling Date			2012/10/26 13:00	2012/10/26 13:30	2012/10/26 13:30		
COC Number			365482-41-01	365482-41-01	365482-41-01		
	Units	**Criteria**	**C-W-1P**	**C-W-2P**	**C-FL-1P**	**RDL**	**QC Batch**
Pesticides & Herbicides							
Aldrin	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3017515
a-Chlordane	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3017515
g-Chlordane	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3017515
Chlordane (Total)	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3017515
o,p-DDD	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3017515
p,p-DDD	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3017515
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0020	<0.0020	<0.0020	0.0020	3017515
o,p-DDE	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3017515
p,p-DDE	ug/g	**0.05**	**0.11 (1)**	**0.12 (1)**	**0.10 (1)**	0.010	3017515
o,p-DDE + p,p-DDE	ug/g	**-**	0.11 (1)	0.12 (1)	0.10 (1)	0.010	3017515
o,p-DDT	ug/g	**1.4**	<0.0020	<0.0020	<0.0020	0.0020	3017515
p,p-DDT	ug/g	**1.4**	0.011	0.024	0.016	0.0020	3017515
o,p-DDT + p,p-DDT	ug/g	**-**	0.011	0.024	0.016	0.0020	3017515
Dieldrin	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3017515
Lindane	ug/g	**0.01**	<0.0020	<0.0020	<0.0020	0.0020	3017515
Endosulfan I (alpha)	ug/g	**0.04**	<0.0020	<0.0020	<0.0020	0.0020	3017515
Endosulfan II	ug/g	**0.04**	<0.0020	<0.0020	<0.0020	0.0020	3017515
Total Endosulfan	ug/g	**-**	<0.0020	<0.0020	<0.0020	0.0020	3017515
Endrin	ug/g	**0.04**	<0.0020	<0.0020	<0.0020	0.0020	3017515
Heptachlor	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3017515
Heptachlor epoxide	ug/g	**0.05**	<0.0020	<0.0020	<0.0020	0.0020	3017515
Hexachlorobenzene	ug/g	**0.01**	<0.0020	<0.0020	<0.0020	0.0020	3017515
Hexachlorobutadiene	ug/g	**0.01**	<0.0050	<0.0050	<0.0050	0.0050	3017515
Hexachloroethane	ug/g	**0.01**	<0.0050	<0.0050	<0.0050	0.0050	3017515
Methoxychlor	ug/g	**0.05**	<0.0050	<0.0050	<0.0050	0.0050	3017515
Aroclor 1242	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3017515
Aroclor 1248	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3017515
Aroclor 1254	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3017515

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
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Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
(1) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

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Maxxam Job #: B2G7788
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ4918	PJ4919	PJ4924		
Sampling Date			2012/10/26 13:00	2012/10/26 13:30	2012/10/26 13:30		
COC Number			365482-41-01	365482-41-01	365482-41-01		
	Units	**Criteria**	**C-W-1P**	**C-W-2P**	**C-FL-1P**	**RDL**	**QC Batch**
Aroclor 1260	ug/g	**-**	<0.015	<0.015	<0.015	0.015	3017515
Total PCB	ug/g	**0.3**	<0.015	<0.015	<0.015	0.015	3017515
Surrogate Recovery (%)							
2,4,5,6-Tetrachloro-m-xylene	%	-	88	93	84		3017515
Decachlorobiphenyl	%	-	93	96	89		3017515

RDL = Reportable Detection Limit
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Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
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Maxxam Job #: B2G7788
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

Package 1	2.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report

Maxxam Job Number: MB2G7788

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017244	THT	RPD	Moisture	2012/10/27	0.6		%	20
3017515	NZ1	Matrix Spike						
		[PJ4919-01]	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		95	%	50 - 130
			Decachlorobiphenyl	2012/10/31		101	%	50 - 130
			Aldrin	2012/10/31		98	%	50 - 130
			a-Chlordane	2012/10/31		107	%	50 - 130
			g-Chlordane	2012/10/31		105	%	50 - 130
			o,p-DDD	2012/10/31		98	%	50 - 130
			p,p-DDD	2012/10/31		113	%	50 - 130
			o,p-DDE	2012/10/31		104	%	50 - 130
			p,p-DDE	2012/10/31		NC (1)	%	50 - 130
			o,p-DDT	2012/10/31		108	%	50 - 130
			p,p-DDT	2012/10/31		NC (1)	%	50 - 130
			Dieldrin	2012/10/31		99	%	50 - 130
			Lindane	2012/10/31		91	%	50 - 130
			Endosulfan I (alpha)	2012/10/31		80	%	50 - 130
			Endosulfan II	2012/10/31		97	%	50 - 130
			Endrin	2012/10/31		104	%	50 - 130
			Heptachlor	2012/10/31		100	%	50 - 130
			Heptachlor epoxide	2012/10/31		81	%	50 - 130
			Hexachlorobenzene	2012/10/31		90	%	50 - 130
			Hexachlorobutadiene	2012/10/31		83	%	50 - 130
			Hexachloroethane	2012/10/31		75	%	50 - 130
			Methoxychlor	2012/10/31		108	%	50 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		95	%	50 - 130
			Decachlorobiphenyl	2012/10/31		105	%	50 - 130
			Aldrin	2012/10/31		102	%	50 - 130
			a-Chlordane	2012/10/31		101	%	50 - 130
			g-Chlordane	2012/10/31		91	%	50 - 130
			o,p-DDD	2012/10/31		88	%	50 - 130
			p,p-DDD	2012/10/31		95	%	50 - 130
			o,p-DDE	2012/10/31		94	%	50 - 130
			p,p-DDE	2012/10/31		102	%	50 - 130
			o,p-DDT	2012/10/31		97	%	50 - 130
			p,p-DDT	2012/10/31		99	%	50 - 130
			Dieldrin	2012/10/31		91	%	50 - 130
			Lindane	2012/10/31		87	%	50 - 130
			Endosulfan I (alpha)	2012/10/31		74	%	50 - 130
			Endosulfan II	2012/10/31		78	%	50 - 130
			Endrin	2012/10/31		91	%	50 - 130
			Heptachlor	2012/10/31		96	%	50 - 130
			Heptachlor epoxide	2012/10/31		82	%	50 - 130
			Hexachlorobenzene	2012/10/31		89	%	50 - 130
			Hexachlorobutadiene	2012/10/31		93	%	50 - 130
			Hexachloroethane	2012/10/31		91	%	50 - 130
			Methoxychlor	2012/10/31		87	%	50 - 130
		RPD	Aroclor 1242	2012/10/31	NC		%	40
			Total PCB	2012/10/31	NC		%	40
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		88	%	50 - 130
			Decachlorobiphenyl	2012/10/31		97	%	50 - 130
			Aldrin	2012/10/31	<0.0020		ug/g	
			a-Chlordane	2012/10/31	<0.0020		ug/g	
			g-Chlordane	2012/10/31	<0.0020		ug/g	
			Chlordane (Total)	2012/10/31	<0.0020		ug/g	
			o,p-DDD	2012/10/31	<0.0020		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7788

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017515	NZ1	Method Blank	p,p-DDD	2012/10/31	<0.0020		ug/g	
			o,p-DDD + p,p-DDD	2012/10/31	<0.0020		ug/g	
			o,p-DDE	2012/10/31	<0.0020		ug/g	
			p,p-DDE	2012/10/31	<0.0020		ug/g	
			o,p-DDE + p,p-DDE	2012/10/31	<0.0020		ug/g	
			o,p-DDT	2012/10/31	<0.0020		ug/g	
			p,p-DDT	2012/10/31	<0.0020		ug/g	
			o,p-DDT + p,p-DDT	2012/10/31	<0.0020		ug/g	
			Dieldrin	2012/10/31	<0.0020		ug/g	
			Lindane	2012/10/31	<0.0020		ug/g	
			Endosulfan I (alpha)	2012/10/31	<0.0020		ug/g	
			Endosulfan II	2012/10/31	<0.0020		ug/g	
			Total Endosulfan	2012/10/31	<0.0020		ug/g	
			Endrin	2012/10/31	<0.0020		ug/g	
			Heptachlor	2012/10/31	<0.0020		ug/g	
			Heptachlor epoxide	2012/10/31	<0.0020		ug/g	
			Hexachlorobenzene	2012/10/31	<0.0020		ug/g	
			Hexachlorobutadiene	2012/10/31	<0.0050		ug/g	
			Hexachloroethane	2012/10/31	<0.0050		ug/g	
			Methoxychlor	2012/10/31	<0.0050		ug/g	
			Aroclor 1242	2012/10/31	<0.015		ug/g	
			Aroclor 1248	2012/10/31	<0.015		ug/g	
			Aroclor 1254	2012/10/31	<0.015		ug/g	
			Aroclor 1260	2012/10/31	<0.015		ug/g	
			Total PCB	2012/10/31	<0.015		ug/g	
		RPD [PJ4919-01]	Aldrin	2012/10/31	NC		%	40
			a-Chlordane	2012/10/31	NC		%	40
			g-Chlordane	2012/10/31	NC		%	40
			Chlordane (Total)	2012/10/31	NC		%	40
			o,p-DDD	2012/10/31	NC		%	40
			p,p-DDD	2012/10/31	NC		%	40
			o,p-DDD + p,p-DDD	2012/10/31	NC		%	40
			o,p-DDE	2012/10/31	NC		%	40
			p,p-DDE	2012/10/31	8.7 (2)		%	40
			o,p-DDE + p,p-DDE	2012/10/31	8.7 (2)		%	40
			o,p-DDT	2012/10/31	NC		%	40
			p,p-DDT	2012/10/31	0		%	40
			o,p-DDT + p,p-DDT	2012/10/31	0		%	40
			Dieldrin	2012/10/31	NC		%	40
			Lindane	2012/10/31	NC		%	40
			Endosulfan I (alpha)	2012/10/31	NC		%	40
			Endosulfan II	2012/10/31	NC		%	40
			Total Endosulfan	2012/10/31	NC		%	40
			Endrin	2012/10/31	NC		%	40
			Heptachlor	2012/10/31	NC		%	40
			Heptachlor epoxide	2012/10/31	NC		%	40
			Hexachlorobenzene	2012/10/31	NC		%	40
			Hexachlorobutadiene	2012/10/31	NC		%	40
			Hexachloroethane	2012/10/31	NC		%	40
			Methoxychlor	2012/10/31	NC		%	40
			Aroclor 1242	2012/10/31	NC		%	40
			Aroclor 1248	2012/10/31	NC		%	40
			Aroclor 1254	2012/10/31	NC		%	40
			Aroclor 1260	2012/10/31	NC		%	40
			Total PCB	2012/10/31	NC		%	40

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MMM Group Limited
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Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7788

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017801	MYG	RPD [PJ4914-01]	Moisture	2012/10/29	0.4		%	20
3019214	JBW	Matrix Spike	Acid Extractable Antimony (Sb)	2012/10/30		106	%	75 - 125
			Acid Extractable Arsenic (As)	2012/10/30		105	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/30		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/30		101	%	75 - 125
			Acid Extractable Boron (B)	2012/10/30		91	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/30		110	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/30		107	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/30		107	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/30		101	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/30		105	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/30		109	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/30		107	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/30		104	%	75 - 125
			Acid Extractable Silver (Ag)	2012/10/30		104	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/30		94	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/30		107	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/30		NC	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/30		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/30		105	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/30		99	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/30		101	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/30		96	%	80 - 120
			Acid Extractable Boron (B)	2012/10/30		88	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/30		106	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/30		103	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/30		102	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/30		100	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/30		104	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/30		102	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/30		103	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/30		102	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/30		101	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/10/30		91	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/30		104	%	80 - 120
			Acid Extractable Vanadium (V)	2012/10/30		104	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/10/30		102	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/30	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/30	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/30	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/10/30	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/30	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/30	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/30	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/30	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/30	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/30	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/30	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/30	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/30	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/30	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/30	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/30	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/10/30	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/10/30	<5.0		ug/g	

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P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7788

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3019214	JBW	RPD	Acid Extractable Antimony (Sb)	2012/10/30	NC		%	30
			Acid Extractable Arsenic (As)	2012/10/30	NC		%	30
			Acid Extractable Barium (Ba)	2012/10/30	0.08		%	30
			Acid Extractable Beryllium (Be)	2012/10/30	NC		%	30
			Acid Extractable Boron (B)	2012/10/30	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/30	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/30	3.6		%	30
			Acid Extractable Cobalt (Co)	2012/10/30	2.8		%	30
			Acid Extractable Copper (Cu)	2012/10/30	16.7		%	30
			Acid Extractable Lead (Pb)	2012/10/30	6.4		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/30	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/30	1.3		%	30
			Acid Extractable Selenium (Se)	2012/10/30	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/30	NC		%	30
			Acid Extractable Thallium (Tl)	2012/10/30	NC		%	30
			Acid Extractable Uranium (U)	2012/10/30	1.6		%	30
			Acid Extractable Vanadium (V)	2012/10/30	3.1		%	30
			Acid Extractable Zinc (Zn)	2012/10/30	0.3		%	30
3019631	BGI	Spiked Blank	Hot Water Ext. Boron (B)	2012/10/30		98	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/10/30	<0.050		ug/g	
3020456	HRE	Matrix Spike [PJ4913-01]	Acid Extractable Antimony (Sb)	2012/10/31		102	%	75 - 125
			Acid Extractable Arsenic (As)	2012/10/31		NC	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/31		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/31		98	%	75 - 125
			Acid Extractable Boron (B)	2012/10/31		87	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/31		103	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/31		103	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/31		103	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/31		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/31		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/31		103	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/31		104	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/31		100	%	75 - 125
			Acid Extractable Silver (Ag)	2012/10/31		101	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/31		94	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/31		106	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/31		103	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/31		104	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/31		99	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/31		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/31		97	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/31		97	%	80 - 120
			Acid Extractable Boron (B)	2012/10/31		90	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/31		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/31		102	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/31		102	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/31		96	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/31		102	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/31		100	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/31		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/31		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/31		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/10/31		91	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/31		105	%	80 - 120

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Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7788

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3020456	HRE	Spiked Blank	Acid Extractable Vanadium (V)	2012/10/31		105	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/10/31		100	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/31	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/31	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/31	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/10/31	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/31	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/31	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/31	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/31	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/31	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/31	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/31	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/31	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/31	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/31	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/31	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/31	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/10/31	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/10/31	<5.0		ug/g	
		RPD [PJ4913-01]	Acid Extractable Antimony (Sb)	2012/10/31	1.1		%	30
			Acid Extractable Arsenic (As)	2012/10/31	5.7		%	30
			Acid Extractable Barium (Ba)	2012/10/31	1.9		%	30
			Acid Extractable Beryllium (Be)	2012/10/31	NC		%	30
			Acid Extractable Boron (B)	2012/10/31	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/31	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/31	4.3		%	30
			Acid Extractable Cobalt (Co)	2012/10/31	2.9		%	30
			Acid Extractable Copper (Cu)	2012/10/31	4.9		%	30
			Acid Extractable Lead (Pb)	2012/10/31	4.2		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/31	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/31	2.5		%	30
			Acid Extractable Selenium (Se)	2012/10/31	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/31	NC		%	30
			Acid Extractable Thallium (Tl)	2012/10/31	NC		%	30
			Acid Extractable Uranium (U)	2012/10/31	2.0		%	30
			Acid Extractable Vanadium (V)	2012/10/31	NC		%	30
			Acid Extractable Zinc (Zn)	2012/10/31	NC		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) The recovery in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.
(2) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

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Validation Signature Page

Maxxam Job #: B2G7788

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES
Your C.O.C. #: 36548234, 365482-34-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/02

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H1239
Received: 2012/11/01, 14:21

Sample Matrix: Soil
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	12	2012/11/02	2012/11/02	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	12	2012/11/02	2012/11/02	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B2H1239
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PL3695	PL3696	PL3697	PL3698		
Sampling Date			2012/11/01 12:00	2012/11/01 12:00	2012/11/01 12:00	2012/11/01 12:00		
COC Number			365482-34-01	365482-34-01	365482-34-01	365482-34-01		
	Units	**Criteria**	**C-W-5C1**	**C-W-5C2**	**C-W-5C3**	**C-W-6C1**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.70	0.59	0.52	0.68	0.050	3023583
Acid Extractable Antimony (Sb)	ug/g	**1.3**	1.2	0.69	1.1	0.76	0.20	3023528
Acid Extractable Arsenic (As)	ug/g	**18**	**81**	**50**	**100**	**54**	1.0	3023528
Acid Extractable Barium (Ba)	ug/g	**220**	39	31	29	46	0.50	3023528
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.32	0.30	0.25	0.34	0.20	3023528
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	3023528
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.22	0.18	0.21	0.19	0.10	3023528
Acid Extractable Chromium (Cr)	ug/g	**70**	9.5	8.7	7.9	11	1.0	3023528
Acid Extractable Cobalt (Co)	ug/g	**21**	3.3	2.9	2.5	3.7	0.10	3023528
Acid Extractable Copper (Cu)	ug/g	**92**	37	35	49	31	0.50	3023528
Acid Extractable Lead (Pb)	ug/g	**120**	**180**	**160**	**270**	**160**	1.0	3023528
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	3023528
Acid Extractable Nickel (Ni)	ug/g	**82**	6.0	5.2	4.9	6.4	0.50	3023528
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	3023528
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	3023528
Acid Extractable Thallium (Tl)	ug/g	**1**	0.079	0.062	0.074	0.065	0.050	3023528
Acid Extractable Uranium (U)	ug/g	**2.5**	0.29	0.31	0.27	0.36	0.050	3023528
Acid Extractable Vanadium (V)	ug/g	**86**	20	17	16	21	5.0	3023528
Acid Extractable Zinc (Zn)	ug/g	**290**	30	26	25	30	5.0	3023528

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2H1239
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PL3699	PL3700	PL3701		
Sampling Date			2012/11/01 12:00	2012/11/01 12:00	2012/11/01 12:00		
COC Number			365482-34-01	365482-34-01	365482-34-01		
	Units	**Criteria**	**C-W-6C2**	**C-W-6C3**	**C-FL-3C1**	**RDL**	**QC Batch**
Metals							
Hot Water Ext. Boron (B)	ug/g	-	0.71	0.69	0.20	0.050	3023583
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.73	**1.4**	0.26	0.20	3023528
Acid Extractable Arsenic (As)	ug/g	**18**	**43**	**100**	8.4	1.0	3023528
Acid Extractable Barium (Ba)	ug/g	**220**	40	35	49	0.50	3023528
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.32	0.32	0.46	0.20	3023528
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	5.0	3023528
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.18	0.21	0.10	0.10	3023528
Acid Extractable Chromium (Cr)	ug/g	**70**	9.8	9.7	13	1.0	3023528
Acid Extractable Cobalt (Co)	ug/g	**21**	3.3	3.4	4.6	0.10	3023528
Acid Extractable Copper (Cu)	ug/g	**92**	24	47	19	0.50	3023528
Acid Extractable Lead (Pb)	ug/g	**120**	**130**	**300**	20	1.0	3023528
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	3023528
Acid Extractable Nickel (Ni)	ug/g	**82**	5.7	6.0	8.7	0.50	3023528
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	3023528
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	3023528
Acid Extractable Thallium (Tl)	ug/g	**1**	0.066	0.077	0.074	0.050	3023528
Acid Extractable Uranium (U)	ug/g	**2.5**	0.33	0.41	0.40	0.050	3023528
Acid Extractable Vanadium (V)	ug/g	**86**	19	20	25	5.0	3023528
Acid Extractable Zinc (Zn)	ug/g	**290**	26	26	27	5.0	3023528

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H1239
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PL3702	PL3703		PL3704		
Sampling Date			2012/11/01 12:00	2012/11/01 12:00		2012/11/01 12:00		
COC Number			365482-34-01	365482-34-01		365482-34-01		
	Units	**Criteria**	**C-FL-3C2**	**C-FL-3C3**	**QC Batch**	**C-FL-4C1**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.34	0.39	3023631	0.24	0.050	3023583
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.37	0.66	3023568	0.89	0.20	3023528
Acid Extractable Arsenic (As)	ug/g	**18**	10	**42**	3023568	**32**	1.0	3023528
Acid Extractable Barium (Ba)	ug/g	**220**	41	44	3023568	37	0.50	3023528
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.32	0.36	3023568	0.34	0.20	3023528
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	3023568	<5.0	5.0	3023528
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.13	0.17	3023568	0.14	0.10	3023528
Acid Extractable Chromium (Cr)	ug/g	**70**	12	11	3023568	11	1.0	3023528
Acid Extractable Cobalt (Co)	ug/g	**21**	4.1	3.7	3023568	3.8	0.10	3023528
Acid Extractable Copper (Cu)	ug/g	**92**	10	28	3023568	18	0.50	3023528
Acid Extractable Lead (Pb)	ug/g	**120**	28	110	3023568	67	1.0	3023528
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	3023568	<0.50	0.50	3023528
Acid Extractable Nickel (Ni)	ug/g	**82**	7.1	6.3	3023568	6.4	0.50	3023528
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	3023568	<0.50	0.50	3023528
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	3023568	<0.20	0.20	3023528
Acid Extractable Thallium (Tl)	ug/g	**1**	0.057	0.076	3023568	0.061	0.050	3023528
Acid Extractable Uranium (U)	ug/g	**2.5**	0.27	0.47	3023568	0.31	0.050	3023528
Acid Extractable Vanadium (V)	ug/g	**86**	23	21	3023568	22	5.0	3023528
Acid Extractable Zinc (Zn)	ug/g	**290**	26	31	3023568	27	5.0	3023528

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H1239
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PL3705	PL3706		
Sampling Date			2012/11/01 12:00	2012/11/01 12:00		
COC Number			365482-34-01	365482-34-01		
	Units	**Criteria**	**C-FL-4C2**	**C-FL-4C3**	**RDL**	**QC Batch**
Metals						
Hot Water Ext. Boron (B)	ug/g	-	0.15	0.14	0.050	3023583
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.64	0.43	0.20	3023528
Acid Extractable Arsenic (As)	ug/g	**18**	**29**	10	1.0	3023528
Acid Extractable Barium (Ba)	ug/g	**220**	23	32	0.50	3023528
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.31	0.45	0.20	3023528
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5.0	3023528
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.12	0.18	0.10	3023528
Acid Extractable Chromium (Cr)	ug/g	**70**	11	11	1.0	3023528
Acid Extractable Cobalt (Co)	ug/g	**21**	3.6	4.6	0.10	3023528
Acid Extractable Copper (Cu)	ug/g	**92**	13	13	0.50	3023528
Acid Extractable Lead (Pb)	ug/g	**120**	69	24	1.0	3023528
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	0.50	3023528
Acid Extractable Nickel (Ni)	ug/g	**82**	5.2	6.7	0.50	3023528
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	0.50	3023528
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	0.20	3023528
Acid Extractable Thallium (Tl)	ug/g	**1**	0.050	0.053	0.050	3023528
Acid Extractable Uranium (U)	ug/g	**2.5**	0.37	0.43	0.050	3023528
Acid Extractable Vanadium (V)	ug/g	**86**	22	22	5.0	3023528
Acid Extractable Zinc (Zn)	ug/g	**290**	20	28	5.0	3023528

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2H1239
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015018 CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

Package 1	8.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

Quality Assurance Report

Maxxam Job Number: MB2H1239

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3023528	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/02		102	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/02		105	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/02		115	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/02		109	%	75 - 125
			Acid Extractable Boron (B)	2012/11/02		101	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/02		104	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/02		100	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/02		102	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/02		98	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/02		85	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/02		103	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/02		101	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/02		102	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/02		103	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/02		93	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/02		103	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/02		101	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/02		NC (1)	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/02		96	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/02		102	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/02		103	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/02		106	%	80 - 120
			Acid Extractable Boron (B)	2012/11/02		102	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/02		100	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/02		95	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/02		101	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/02		97	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/02		97	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/02		95	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/02		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/02		103	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/02		102	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/02		93	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/02		100	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/02		95	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/02		101	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/02	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/02	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/02	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/02	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/02	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/02	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/02	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/02	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/02	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/02	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/02	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/02	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/02	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/02	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/02	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/02	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/02	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/02	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/02	NC		%	30

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H1239

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3023528	VIV	RPD	Acid Extractable Arsenic (As)	2012/11/02	1.9		%	30
			Acid Extractable Barium (Ba)	2012/11/02	23.6		%	30
			Acid Extractable Beryllium (Be)	2012/11/02	NC		%	30
			Acid Extractable Boron (B)	2012/11/02	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/02	10.5		%	30
			Acid Extractable Chromium (Cr)	2012/11/02	NC		%	30
			Acid Extractable Cobalt (Co)	2012/11/02	1.3		%	30
			Acid Extractable Copper (Cu)	2012/11/02	7.9		%	30
			Acid Extractable Lead (Pb)	2012/11/02	40.2 (2)		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/02	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/02	2.4		%	30
			Acid Extractable Selenium (Se)	2012/11/02	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/02	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/02	NC		%	30
			Acid Extractable Uranium (U)	2012/11/02	NC		%	30
			Acid Extractable Vanadium (V)	2012/11/02	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/02	18.6		%	30
3023568	VIV	Matrix Spike [PL3702-01]	Acid Extractable Antimony (Sb)	2012/11/02		94	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/02		101	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/02		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/02		101	%	75 - 125
			Acid Extractable Boron (B)	2012/11/02		91	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/02		99	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/02		97	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/02		100	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/02		99	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/02		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/02		96	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/02		102	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/02		99	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/02		101	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/02		94	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/02		99	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/02		98	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/02		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/02		96	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/02		101	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/02		104	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/02		98	%	80 - 120
			Acid Extractable Boron (B)	2012/11/02		95	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/02		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/02		94	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/02		98	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/02		97	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/02		97	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/02		95	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/02		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/02		103	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/02		100	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/02		93	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/02		99	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/02		93	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/02		103	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/02	<0.20		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018 CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H1239

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3023568	VIV	Method Blank	Acid Extractable Arsenic (As)	2012/11/02	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/02	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/02	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/02	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/02	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/02	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/02	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/02	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/02	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/02	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/02	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/02	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/02	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/02	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/02	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/02	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/02	<5.0		ug/g	
		RPD [PL3702-01]	Acid Extractable Antimony (Sb)	2012/11/02	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/02	10.0		%	30
			Acid Extractable Barium (Ba)	2012/11/02	4.5		%	30
			Acid Extractable Beryllium (Be)	2012/11/02	NC		%	30
			Acid Extractable Boron (B)	2012/11/02	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/02	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/02	7.8		%	30
			Acid Extractable Cobalt (Co)	2012/11/02	9.1		%	30
			Acid Extractable Copper (Cu)	2012/11/02	6.9		%	30
			Acid Extractable Lead (Pb)	2012/11/02	14.7		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/02	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/02	5.0		%	30
			Acid Extractable Selenium (Se)	2012/11/02	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/02	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/02	NC		%	30
			Acid Extractable Uranium (U)	2012/11/02	3.1		%	30
			Acid Extractable Vanadium (V)	2012/11/02	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/02	NC		%	30
3023583	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/02		93	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/02	<0.050		ug/g	
3023631	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/02		95	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/02	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/11/02	NC		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) The recovery in the matrix spike was not calculated (NC). Spiked concentration was less than 2x that native to the sample.
(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Validation Signature Page

Maxxam Job #: B2H1239

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere, Scientific Services

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 10050150-18-CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES
Your C.O.C. #: 37849102, 378491-02-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/12
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H3155
Received: 2012/11/05, 14:40

Sample Matrix: Soil
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	9	2012/11/06	2012/11/06	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	9	2012/11/06	2012/11/06	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B2H3155
Report Date: 2012/11/12

MMM Group Limited
Client Project #: 10050150-18-CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		PM2494	PM2495	PM2496	PM2497		
Sampling Date		2012/11/05 11:00	2012/11/05 11:00	2012/11/05 11:00	2012/11/05 11:00		
COC Number		378491-02-01	378491-02-01	378491-02-01	378491-02-01		
	Units	**C-5-C1A**	**C-5-C1B**	**C-5-C1C**	**C-5-C3A**	**RDL**	**QC Batch**
Metals							
Hot Water Ext. Boron (B)	ug/g	0.65	0.60	0.45	0.61	0.050	3026917
Acid Extractable Antimony (Sb)	ug/g	0.49	0.42	1.2	0.79	0.20	3026940
Acid Extractable Arsenic (As)	ug/g	32	33	110	73	1.0	3026940
Acid Extractable Barium (Ba)	ug/g	55	38	36	31	0.50	3026940
Acid Extractable Beryllium (Be)	ug/g	0.45	0.30	0.30	0.26	0.20	3026940
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	<5.0	<5.0	5.0	3026940
Acid Extractable Cadmium (Cd)	ug/g	0.14	0.16	0.20	0.15	0.10	3026940
Acid Extractable Chromium (Cr)	ug/g	14	11	10	9.3	1.0	3026940
Acid Extractable Cobalt (Co)	ug/g	5.2	3.2	3.1	2.8	0.10	3026940
Acid Extractable Copper (Cu)	ug/g	36	22	57	33	0.50	3026940
Acid Extractable Lead (Pb)	ug/g	110	98	340	180	1.0	3026940
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	<0.50	<0.50	0.50	3026940
Acid Extractable Nickel (Ni)	ug/g	10	6.8	6.2	5.2	0.50	3026940
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	<0.50	0.50	3026940
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	<0.20	<0.20	0.20	3026940
Acid Extractable Thallium (Tl)	ug/g	0.083	0.053	0.078	0.065	0.050	3026940
Acid Extractable Uranium (U)	ug/g	0.35	0.28	0.37	0.33	0.050	3026940
Acid Extractable Vanadium (V)	ug/g	24	18	19	19	5.0	3026940
Acid Extractable Zinc (Zn)	ug/g	35	26	30	24	5.0	3026940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2H3155
Report Date: 2012/11/12

MMM Group Limited
Client Project #: 10050150-18-CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		PM2498	PM2499	PM2500	PM2501		
Sampling Date		2012/11/05 11:00	2012/11/05 11:00	2012/11/05 11:00	2012/11/05 11:00		
COC Number		378491-02-01	378491-02-01	378491-02-01	378491-02-01		
	Units	**C-5-C3B**	**C-5-C3C**	**C-6-C3A**	**C-6-C3B**	**RDL**	**QC Batch**
Metals							
Hot Water Ext. Boron (B)	ug/g	0.63	0.37	0.72	0.98	0.050	3026917
Acid Extractable Antimony (Sb)	ug/g	0.89	0.46	1.1	1.4	0.20	3026940
Acid Extractable Arsenic (As)	ug/g	89	31	95	100	1.0	3026940
Acid Extractable Barium (Ba)	ug/g	31	24	40	39	0.50	3026940
Acid Extractable Beryllium (Be)	ug/g	0.27	0.24	0.31	0.32	0.20	3026940
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	<5.0	<5.0	5.0	3026940
Acid Extractable Cadmium (Cd)	ug/g	0.21	0.13	0.22	0.21	0.10	3026940
Acid Extractable Chromium (Cr)	ug/g	10	8.6	10	10	1.0	3026940
Acid Extractable Cobalt (Co)	ug/g	2.8	2.4	3.4	3.4	0.10	3026940
Acid Extractable Copper (Cu)	ug/g	44	22	49	55	0.50	3026940
Acid Extractable Lead (Pb)	ug/g	250	96	280	300	1.0	3026940
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	<0.50	<0.50	0.50	3026940
Acid Extractable Nickel (Ni)	ug/g	5.4	4.5	5.6	5.9	0.50	3026940
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	<0.50	0.50	3026940
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	<0.20	<0.20	0.20	3026940
Acid Extractable Thallium (Tl)	ug/g	0.071	<0.050	0.078	0.089	0.050	3026940
Acid Extractable Uranium (U)	ug/g	0.37	0.30	0.30	0.28	0.050	3026940
Acid Extractable Vanadium (V)	ug/g	19	18	20	19	5.0	3026940
Acid Extractable Zinc (Zn)	ug/g	26	21	28	28	5.0	3026940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2H3155
Report Date: 2012/11/12

MMM Group Limited
Client Project #: 10050150-18-CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		PM2502		
Sampling Date		2012/11/05 11:00		
COC Number		378491-02-01		
	Units	**C-6-C3C**	**RDL**	**QC Batch**
Metals				
Hot Water Ext. Boron (B)	ug/g	0.80	0.050	3026917
Acid Extractable Antimony (Sb)	ug/g	1.7	0.20	3026940
Acid Extractable Arsenic (As)	ug/g	140	1.0	3026940
Acid Extractable Barium (Ba)	ug/g	35	0.50	3026940
Acid Extractable Beryllium (Be)	ug/g	0.30	0.20	3026940
Acid Extractable Boron (B)	ug/g	<5.0	5.0	3026940
Acid Extractable Cadmium (Cd)	ug/g	0.21	0.10	3026940
Acid Extractable Chromium (Cr)	ug/g	11	1.0	3026940
Acid Extractable Cobalt (Co)	ug/g	3.1	0.10	3026940
Acid Extractable Copper (Cu)	ug/g	55	0.50	3026940
Acid Extractable Lead (Pb)	ug/g	380	1.0	3026940
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	3026940
Acid Extractable Nickel (Ni)	ug/g	5.5	0.50	3026940
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	3026940
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	3026940
Acid Extractable Thallium (Tl)	ug/g	0.098	0.050	3026940
Acid Extractable Uranium (U)	ug/g	0.45	0.050	3026940
Acid Extractable Vanadium (V)	ug/g	18	5.0	3026940
Acid Extractable Zinc (Zn)	ug/g	25	5.0	3026940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2H3155
Report Date: 2012/11/12

MMM Group Limited
Client Project #: 10050150-18-CA1
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

Package 1	5.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Revised Report (2012/11/12): Client project number and report attention have been updated.
Sample C-6-C3C was submitted in a 250 ml Amber Glass container that was not provided by Maxxam. Analysis performed with client's consent.

Results relate only to the items tested.

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 10050150-18-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

Quality Assurance Report

Maxxam Job Number: MB2H3155

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3026917	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/06		94	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/06	<0.050		ug/g	
3026940	VIV	Matrix Spike [PM2494-01]	Acid Extractable Antimony (Sb)	2012/11/06		90	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/06		NC	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/06		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/06		99	%	75 - 125
			Acid Extractable Boron (B)	2012/11/06		90	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/06		94	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/06		100	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/06		94	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/06		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/06		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/06		92	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/06		99	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/06		94	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/06		95	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/06		90	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/06		97	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/06		101	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/06		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/06		94	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/06		99	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/06		101	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/06		99	%	80 - 120
			Acid Extractable Boron (B)	2012/11/06		95	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/06		97	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/06		97	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/06		96	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/06		95	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/06		94	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/06		93	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/06		99	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/06		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/06		97	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/06		92	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/06		100	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/06		97	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/06		96	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/06	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/06	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/06	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/06	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/06	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/06	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/06	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/06	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/06	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/06	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/06	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/06	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/06	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/06	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/06	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/06	<0.050		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 10050150-18-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C CONF. SAMPLES

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H3155

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3026940	VIV	Method Blank	Acid Extractable Vanadium (V)	2012/11/06	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/06	<5.0		ug/g	
		RPD [PM2494-01]	Acid Extractable Antimony (Sb)	2012/11/06	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/06	2.9		%	30
			Acid Extractable Barium (Ba)	2012/11/06	0.3		%	30
			Acid Extractable Beryllium (Be)	2012/11/06	NC		%	30
			Acid Extractable Boron (B)	2012/11/06	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/06	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/06	2.9		%	30
			Acid Extractable Cobalt (Co)	2012/11/06	2.4		%	30
			Acid Extractable Copper (Cu)	2012/11/06	3.9		%	30
			Acid Extractable Lead (Pb)	2012/11/06	1.7		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/06	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/06	4.1		%	30
			Acid Extractable Selenium (Se)	2012/11/06	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/06	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/06	NC		%	30
			Acid Extractable Uranium (U)	2012/11/06	2.4		%	30
			Acid Extractable Vanadium (V)	2012/11/06	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/06	1.0		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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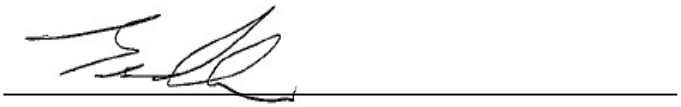
Validation Signature Page

Maxxam Job #: B2H3155

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Specialist

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Your Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Your C.O.C. #: 36548212, 365482-12-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/08

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H4849
Received: 2012/11/07, 14:10

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	7	2012/11/08	2012/11/08	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	7	2012/11/08	2012/11/08	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2H4849
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PN2595	PN2596	PN2597	PN2598	PN2599		
Sampling Date			2012/11/07	2012/11/07	2012/11/07	2012/11/07	2012/11/07		
COC Number			365482-12-01	365482-12-01	365482-12-01	365482-12-01	365482-12-01		
	Units	**Criteria**	**C-6C3D**	**C-6C3E**	**C-6C3F**	**C-5C3D**	**C-5C3E**	**RDL**	**QC Batch**
Metals									
Hot Water Ext. Boron (B)	ug/g	**-**	0.98	1.0	0.86	0.61	0.50	0.050	3029813
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.97	0.89	1.1	0.37	0.44	0.20	3029847
Acid Extractable Arsenic (As)	ug/g	**18**	**89**	**79**	**79**	**21**	**30**	1.0	3029847
Acid Extractable Barium (Ba)	ug/g	**220**	38	44	44	26	25	0.50	3029847
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.35	0.38	0.36	0.27	0.22	0.20	3029847
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	3029847
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.17	0.17	0.18	0.11	<0.10	0.10	3029847
Acid Extractable Chromium (Cr)	ug/g	**70**	11	13	12	9.3	8.0	1.0	3029847
Acid Extractable Cobalt (Co)	ug/g	**21**	3.5	4.2	4.2	3.0	2.6	0.10	3029847
Acid Extractable Copper (Cu)	ug/g	**92**	38	43	37	18	17	0.50	3029847
Acid Extractable Lead (Pb)	ug/g	**120**	**270**	**230**	**220**	61	85	1.0	3029847
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3029847
Acid Extractable Nickel (Ni)	ug/g	**82**	6.2	8.0	7.9	5.7	4.9	0.50	3029847
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3029847
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	3029847
Acid Extractable Thallium (Tl)	ug/g	**1**	0.077	0.089	0.082	0.054	0.060	0.050	3029847
Acid Extractable Uranium (U)	ug/g	**2.5**	0.42	0.44	0.36	0.30	0.26	0.050	3029847
Acid Extractable Vanadium (V)	ug/g	**86**	21	23	21	20	18	5.0	3029847
Acid Extractable Zinc (Zn)	ug/g	**290**	30	30	31	21	19	5.0	3029847

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H4849
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PN2600	PN2601		
Sampling Date			2012/11/07	2012/11/07		
COC Number			365482-12-01	365482-12-01		
	Units	**Criteria**	**C-5C3F**	**C-5C3F-D**	**RDL**	**QC Batch**
Metals						
Hot Water Ext. Boron (B)	ug/g	**-**	0.49	0.49	0.050	3029813
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.46	0.53	0.20	3029847
Acid Extractable Arsenic (As)	ug/g	**18**	**26**	**29**	1.0	3029847
Acid Extractable Barium (Ba)	ug/g	**220**	31	31	0.50	3029847
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.29	0.28	0.20	3029847
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5.0	3029847
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.14	0.14	0.10	3029847
Acid Extractable Chromium (Cr)	ug/g	**70**	9.5	9.1	1.0	3029847
Acid Extractable Cobalt (Co)	ug/g	**21**	3.0	3.0	0.10	3029847
Acid Extractable Copper (Cu)	ug/g	**92**	31	21	0.50	3029847
Acid Extractable Lead (Pb)	ug/g	**120**	76	82	1.0	3029847
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	0.50	3029847
Acid Extractable Nickel (Ni)	ug/g	**82**	5.6	5.5	0.50	3029847
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	0.50	3029847
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	0.20	3029847
Acid Extractable Thallium (Tl)	ug/g	**1**	0.055	0.055	0.050	3029847
Acid Extractable Uranium (U)	ug/g	**2.5**	0.33	0.31	0.050	3029847
Acid Extractable Vanadium (V)	ug/g	**86**	20	20	5.0	3029847
Acid Extractable Zinc (Zn)	ug/g	**290**	24	21	5.0	3029847

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H4849
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

Package 1	2.7°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report

Maxxam Job Number: MB2H4849

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3029813	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/08		101	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/08	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/11/08	NC		%	35
3029847	VIV	Matrix Spike						
		[PN2595-01]	Acid Extractable Antimony (Sb)	2012/11/08		94	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/08		NC	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/08		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/08		98	%	75 - 125
			Acid Extractable Boron (B)	2012/11/08		93	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/08		95	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/08		92	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/08		93	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/08		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/08		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/08		91	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/08		97	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/08		94	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/08		95	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/08		92	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/08		99	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/08		93	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/08		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/08		98	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/08		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/08		105	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/08		97	%	80 - 120
			Acid Extractable Boron (B)	2012/11/08		99	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/08		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/08		94	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/08		96	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/08		94	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/08		97	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/08		95	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/08		100	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/08		97	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/08		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/08		93	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/08		106	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/08		93	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/08		102	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/08	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/08	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/08	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/08	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/08	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/08	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/08	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/08	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/08	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/08	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/08	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/08	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/08	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/08	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/08	<0.050		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H4849

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3029847	VIV	Method Blank	Acid Extractable Uranium (U)	2012/11/08	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/08	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/08	<5.0		ug/g	
		RPD [PN2595-01]	Acid Extractable Antimony (Sb)	2012/11/08	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/08	3.9		%	30
			Acid Extractable Barium (Ba)	2012/11/08	0.7		%	30
			Acid Extractable Beryllium (Be)	2012/11/08	NC		%	30
			Acid Extractable Boron (B)	2012/11/08	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/08	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/08	8.3		%	30
			Acid Extractable Cobalt (Co)	2012/11/08	1.5		%	30
			Acid Extractable Copper (Cu)	2012/11/08	0.05		%	30
			Acid Extractable Lead (Pb)	2012/11/08	5.4		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/08	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/08	0.3		%	30
			Acid Extractable Selenium (Se)	2012/11/08	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/08	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/08	NC		%	30
			Acid Extractable Uranium (U)	2012/11/08	3.0		%	30
			Acid Extractable Vanadium (V)	2012/11/08	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/08	5.1		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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Validation Signature Page

Maxxam Job #: B2H4849

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere, Scientific Services

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Your Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Your C.O.C. #: 37849101, 378491-01-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H5439
Received: 2012/11/08, 11:35

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	2	2012/11/09	2012/11/09	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	2	2012/11/09	2012/11/09	CAM SOP-00447	EPA 6020
Moisture	1	N/A	2012/11/09	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	1	2012/11/10	2012/11/13	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2H5439
Report Date: 2012/11/13

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PN5913		
Sampling Date		2012/11/07		
COC Number		378491-01-01		
	Units	**C-FL-2P**	**RDL**	**QC Batch**
Inorganics				
Moisture	%	26	1.0	3032160

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2H5439
Report Date: 2012/11/13

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PN5911	PN5912		
Sampling Date			2012/11/07	2012/11/07		
COC Number			378491-01-01	378491-01-01		
	Units	**Criteria**	**C-FL-6**	**C-FL-5**	**RDL**	**QC Batch**
Metals						
Hot Water Ext. Boron (B)	ug/g	**-**	0.16	0.54	0.050	3031412
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	0.89	0.20	3031442
Acid Extractable Arsenic (As)	ug/g	**18**	4.2	**66**	1.0	3031442
Acid Extractable Barium (Ba)	ug/g	**220**	23	34	0.50	3031442
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.26	0.26	0.20	3031442
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5.0	3031442
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	0.18	0.10	3031442
Acid Extractable Chromium (Cr)	ug/g	**70**	9.1	9.1	1.0	3031442
Acid Extractable Cobalt (Co)	ug/g	**21**	3.4	2.9	0.10	3031442
Acid Extractable Copper (Cu)	ug/g	**92**	12	41	0.50	3031442
Acid Extractable Lead (Pb)	ug/g	**120**	12	**200**	1.0	3031442
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	0.50	3031442
Acid Extractable Nickel (Ni)	ug/g	**82**	5.2	5.6	0.50	3031442
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	0.50	3031442
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	0.20	3031442
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	0.071	0.050	3031442
Acid Extractable Uranium (U)	ug/g	**2.5**	0.26	0.31	0.050	3031442
Acid Extractable Vanadium (V)	ug/g	**86**	20	18	5.0	3031442
Acid Extractable Zinc (Zn)	ug/g	**290**	19	32	5.0	3031442

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2H5439
Report Date: 2012/11/13

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PN5913		
Sampling Date			2012/11/07		
COC Number			378491-01-01		
	Units	**Criteria**	**C-FL-2P**	**RDL**	**QC Batch**
Pesticides & Herbicides					
Aldrin	ug/g	**0.05**	<0.0020	0.0020	3032658
a-Chlordane	ug/g	**0.05**	<0.0020	0.0020	3032658
g-Chlordane	ug/g	**0.05**	<0.0020	0.0020	3032658
Chlordane (Total)	ug/g	**0.05**	<0.0020	0.0020	3032658
o,p-DDD	ug/g	**0.05**	<0.0020	0.0020	3032658
p,p-DDD	ug/g	**0.05**	0.0050	0.0020	3032658
o,p-DDD + p,p-DDD	ug/g	**-**	0.0050	0.0020	3032658
o,p-DDE	ug/g	**0.05**	<0.0020	0.0020	3032658
p,p-DDE	ug/g	**0.05**	**0.90**	0.10	3032658
o,p-DDE + p,p-DDE	ug/g	**-**	0.90	0.10	3032658
o,p-DDT	ug/g	**1.4**	0.0050	0.0020	3032658
p,p-DDT	ug/g	**1.4**	0.14	0.020	3032658
o,p-DDT + p,p-DDT	ug/g	**-**	0.15	0.020	3032658
Dieldrin	ug/g	**0.05**	<0.0020	0.0020	3032658
Lindane	ug/g	**0.01**	<0.0020	0.0020	3032658
Endosulfan I (alpha)	ug/g	**0.04**	<0.0020	0.0020	3032658
Endosulfan II	ug/g	**0.04**	<0.0020	0.0020	3032658
Total Endosulfan	ug/g	**-**	<0.0020	0.0020	3032658
Endrin	ug/g	**0.04**	<0.0020	0.0020	3032658
Heptachlor	ug/g	**0.05**	<0.0020	0.0020	3032658
Heptachlor epoxide	ug/g	**0.05**	<0.0020	0.0020	3032658
Hexachlorobenzene	ug/g	**0.01**	<0.0020	0.0020	3032658
Hexachlorobutadiene	ug/g	**0.01**	<0.0050	0.0050	3032658
Hexachloroethane	ug/g	**0.01**	<0.0050	0.0050	3032658
Methoxychlor	ug/g	**0.05**	<0.0050	0.0050	3032658
Aroclor 1242	ug/g	**-**	<0.015	0.015	3032658
Aroclor 1248	ug/g	**-**	<0.015	0.015	3032658
Aroclor 1254	ug/g	**-**	<0.015	0.015	3032658
Aroclor 1260	ug/g	**-**	<0.015	0.015	3032658
Total PCB	ug/g	**0.3**	<0.015	0.015	3032658

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B2H5439
Report Date: 2012/11/13

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PN5913		
Sampling Date			2012/11/07		
COC Number			378491-01-01		
	Units	**Criteria**	**C-FL-2P**	**RDL**	**QC Batch**
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	-	68		3032658
Decachlorobiphenyl	%	-	85		3032658

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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MMM Group Limited
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Site Location: SUMMERHILL WOODS/AREA C
Sampler Initials: RW

Package 1	4.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Sample PN5913-01: OC Pesticide analysis: Due to high concentrations of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report

Maxxam Job Number: MB2H5439

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3031412	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/09		95	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/09	<0.050		ug/g	
3031442	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/09		90	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/09		95	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/09		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/09		95	%	75 - 125
			Acid Extractable Boron (B)	2012/11/09		97	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/09		95	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/09		NC	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/09		92	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/09		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/09		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/09		95	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/09		NC	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/09		94	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/09		91	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/09		78	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/09		97	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/09		94	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/09		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/09		94	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/09		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/09		104	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/09		98	%	80 - 120
			Acid Extractable Boron (B)	2012/11/09		97	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/09		100	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/09		95	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/09		96	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/09		94	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/09		97	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/09		98	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/09		99	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/09		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/09		96	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/09		90	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/09		102	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/09		94	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/09		101	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/09	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/09	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/09	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/09	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/09	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/09	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/09	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/09	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/09	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/09	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/09	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/09	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/09	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/09	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/09	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/09	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/09	<5.0		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H5439

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3031442	VIV	Method Blank	Acid Extractable Zinc (Zn)	2012/11/09	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/09	25.7		%	30
			Acid Extractable Arsenic (As)	2012/11/09	2.0		%	30
			Acid Extractable Barium (Ba)	2012/11/09	3.4		%	30
			Acid Extractable Beryllium (Be)	2012/11/09	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/09	80.0 (1)		%	30
			Acid Extractable Chromium (Cr)	2012/11/09	5.4		%	30
			Acid Extractable Cobalt (Co)	2012/11/09	3.9		%	30
			Acid Extractable Copper (Cu)	2012/11/09	25.8		%	30
			Acid Extractable Lead (Pb)	2012/11/09	26.5		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/09	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/09	0.8		%	30
			Acid Extractable Selenium (Se)	2012/11/09	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/09	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/09	7.8		%	30
3032160	THT	RPD	Moisture	2012/11/09	1.1		%	20
3032658	NZ1	Matrix Spike						
		[PN5913-01]	2,4,5,6-Tetrachloro-m-xylene	2012/11/13		75	%	50 - 130
			Decachlorobiphenyl	2012/11/13		83	%	50 - 130
			Aldrin	2012/11/13		86	%	50 - 130
			a-Chlordane	2012/11/13		82	%	50 - 130
			g-Chlordane	2012/11/13		101	%	50 - 130
			o,p-DDD	2012/11/13		90	%	50 - 130
			p,p-DDD	2012/11/13		91	%	50 - 130
			o,p-DDE	2012/11/13		101	%	50 - 130
			p,p-DDE	2012/11/13		NC (2)	%	50 - 130
			o,p-DDT	2012/11/13		103	%	50 - 130
			p,p-DDT	2012/11/13		NC (2)	%	50 - 130
			Dieldrin	2012/11/13		98	%	50 - 130
			Lindane	2012/11/13		85	%	50 - 130
			Endosulfan I (alpha)	2012/11/13		83	%	50 - 130
			Endosulfan II	2012/11/13		96	%	50 - 130
			Endrin	2012/11/13		107	%	50 - 130
			Heptachlor	2012/11/13		92	%	50 - 130
			Heptachlor epoxide	2012/11/13		66	%	50 - 130
			Hexachlorobenzene	2012/11/13		78	%	50 - 130
			Hexachlorobutadiene	2012/11/13		68	%	50 - 130
			Hexachloroethane	2012/11/13		63	%	50 - 130
			Methoxychlor	2012/11/13		97	%	50 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/11/13		84	%	50 - 130
			Decachlorobiphenyl	2012/11/13		96	%	50 - 130
			Aldrin	2012/11/13		97	%	50 - 130
			a-Chlordane	2012/11/13		91	%	50 - 130
			g-Chlordane	2012/11/13		91	%	50 - 130
			o,p-DDD	2012/11/13		90	%	50 - 130
			p,p-DDD	2012/11/13		100	%	50 - 130
			o,p-DDE	2012/11/13		97	%	50 - 130
			p,p-DDE	2012/11/13		104	%	50 - 130
			o,p-DDT	2012/11/13		102	%	50 - 130
			p,p-DDT	2012/11/13		97	%	50 - 130
			Dieldrin	2012/11/13		95	%	50 - 130
			Lindane	2012/11/13		90	%	50 - 130
			Endosulfan I (alpha)	2012/11/13		80	%	50 - 130
			Endosulfan II	2012/11/13		87	%	50 - 130
			Endrin	2012/11/13		98	%	50 - 130

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H5439

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3032658	NZ1	Spiked Blank	Heptachlor	2012/11/13		102	%	50 - 130
			Heptachlor epoxide	2012/11/13		83	%	50 - 130
			Hexachlorobenzene	2012/11/13		85	%	50 - 130
			Hexachlorobutadiene	2012/11/13		83	%	50 - 130
			Hexachloroethane	2012/11/13		78	%	50 - 130
			Methoxychlor	2012/11/13		89	%	50 - 130
		RPD	Aroclor 1242	2012/11/13	NC		%	40
			Total PCB	2012/11/13	NC		%	40
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/11/13		78	%	50 - 130
			Decachlorobiphenyl	2012/11/13		91	%	50 - 130
			Aldrin	2012/11/13	<0.0020		ug/g	
			a-Chlordane	2012/11/13	<0.0020		ug/g	
			g-Chlordane	2012/11/13	<0.0020		ug/g	
			Chlordane (Total)	2012/11/13	<0.0020		ug/g	
			o,p-DDD	2012/11/13	<0.0020		ug/g	
			p,p-DDD	2012/11/13	<0.0020		ug/g	
			o,p-DDD + p,p-DDD	2012/11/13	<0.0020		ug/g	
			o,p-DDE	2012/11/13	<0.0020		ug/g	
			p,p-DDE	2012/11/13	<0.0020		ug/g	
			o,p-DDE + p,p-DDE	2012/11/13	<0.0020		ug/g	
			o,p-DDT	2012/11/13	<0.0020		ug/g	
			p,p-DDT	2012/11/13	<0.0020		ug/g	
			o,p-DDT + p,p-DDT	2012/11/13	<0.0020		ug/g	
			Dieldrin	2012/11/13	<0.0020		ug/g	
			Lindane	2012/11/13	<0.0020		ug/g	
			Endosulfan I (alpha)	2012/11/13	<0.0020		ug/g	
			Endosulfan II	2012/11/13	<0.0020		ug/g	
			Total Endosulfan	2012/11/13	<0.0020		ug/g	
			Endrin	2012/11/13	<0.0020		ug/g	
			Heptachlor	2012/11/13	<0.0020		ug/g	
			Heptachlor epoxide	2012/11/13	<0.0020		ug/g	
			Hexachlorobenzene	2012/11/13	<0.0020		ug/g	
			Hexachlorobutadiene	2012/11/13	<0.0050		ug/g	
			Hexachloroethane	2012/11/13	<0.0050		ug/g	
			Methoxychlor	2012/11/13	<0.0050		ug/g	
			Aroclor 1242	2012/11/13	<0.015		ug/g	
			Aroclor 1248	2012/11/13	<0.015		ug/g	
			Aroclor 1254	2012/11/13	<0.015		ug/g	
			Aroclor 1260	2012/11/13	<0.015		ug/g	
			Total PCB	2012/11/13	<0.015		ug/g	
		RPD [PN5913-01]	Aldrin	2012/11/13	NC		%	40
			a-Chlordane	2012/11/13	NC		%	40
			g-Chlordane	2012/11/13	NC		%	40
			Chlordane (Total)	2012/11/13	NC		%	40
			o,p-DDD	2012/11/13	NC		%	40
			p,p-DDD	2012/11/13	NC		%	40
			o,p-DDD + p,p-DDD	2012/11/13	NC		%	40
			o,p-DDE	2012/11/13	NC		%	40
			p,p-DDE	2012/11/13	25.0		%	40
			o,p-DDE + p,p-DDE	2012/11/13	25.0		%	40
			o,p-DDT	2012/11/13	NC		%	40
			p,p-DDT	2012/11/13	6.9		%	40
			o,p-DDT + p,p-DDT	2012/11/13	6.5		%	40
			Dieldrin	2012/11/13	NC		%	40
			Lindane	2012/11/13	NC		%	40

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Attention: Rebecca Wheater
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P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H5439

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3032658	NZ1	RPD [PN5913-01]	Endosulfan I (alpha)	2012/11/13	NC		%	40
			Endosulfan II	2012/11/13	NC		%	40
			Total Endosulfan	2012/11/13	NC		%	40
			Endrin	2012/11/13	NC		%	40
			Heptachlor	2012/11/13	NC		%	40
			Heptachlor epoxide	2012/11/13	NC		%	40
			Hexachlorobenzene	2012/11/13	NC		%	40
			Hexachlorobutadiene	2012/11/13	NC		%	40
			Hexachloroethane	2012/11/13	NC		%	40
			Methoxychlor	2012/11/13	NC		%	40
			Aroclor 1242	2012/11/13	NC		%	40
			Aroclor 1248	2012/11/13	NC		%	40
			Aroclor 1254	2012/11/13	NC		%	40
			Aroclor 1260	2012/11/13	NC		%	40
			Total PCB	2012/11/13	NC		%	40

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) The recovery in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.

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Validation Signature Page

Maxxam Job #: B2H5439

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Cristina Carriere, Scientific Services

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

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Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 10-05015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C
Your C.O.C. #: 36548218, 365482-18-01

Attention: Carolyn Adams
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/14
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H6804
Received: 2012/11/09, 17:40

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	3	2012/11/12	2012/11/13	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	3	2012/11/12	2012/11/13	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2H6804
Report Date: 2012/11/14

MMM Group Limited
Client Project #: 10-05015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		PO2265	PO2266	PO2267		
Sampling Date		2012/11/09 13:05	2012/11/09 13:10	2012/11/09 13:15		
COC Number		365482-18-01	365482-18-01	365482-18-01		
	Units	**C-6C3G**	**C-6C3H**	**C-6C3I**	**RDL**	**QC Batch**
Metals						
Hot Water Ext. Boron (B)	ug/g	0.58	0.56	0.36	0.050	3033976
Acid Extractable Antimony (Sb)	ug/g	0.74	0.64	0.34	0.20	3033594
Acid Extractable Arsenic (As)	ug/g	46	44	23	1.0	3033594
Acid Extractable Barium (Ba)	ug/g	51	42	52	0.50	3033594
Acid Extractable Beryllium (Be)	ug/g	0.46	0.33	0.40	0.20	3033594
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	<5.0	5.0	3033594
Acid Extractable Cadmium (Cd)	ug/g	0.20	0.14	0.15	0.10	3033594
Acid Extractable Chromium (Cr)	ug/g	14	10	13	1.0	3033594
Acid Extractable Cobalt (Co)	ug/g	4.8	3.7	4.7	0.10	3033594
Acid Extractable Copper (Cu)	ug/g	38	38	38	0.50	3033594
Acid Extractable Lead (Pb)	ug/g	150	140	70	1.0	3033594
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	<0.50	0.50	3033594
Acid Extractable Nickel (Ni)	ug/g	10	7.8	9.8	0.50	3033594
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	0.50	3033594
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	<0.20	0.20	3033594
Acid Extractable Thallium (Tl)	ug/g	0.096	0.081	0.086	0.050	3033594
Acid Extractable Uranium (U)	ug/g	0.35	0.28	0.34	0.050	3033594
Acid Extractable Vanadium (V)	ug/g	25	19	24	5.0	3033594
Acid Extractable Zinc (Zn)	ug/g	36	34	37	5.0	3033594

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2H6804
Report Date: 2012/11/14

MMM Group Limited
Client Project #: 10-05015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C

Package 1	7.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Revised Report (2012/11/14): Client sample ID, C-6C3A changed to C-6C3H as per client request.

Results relate only to the items tested.

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MMM Group Limited
Attention: Carolyn Adams
Client Project #: 10-05015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report

Maxxam Job Number: MB2H6804

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3033594	JBW	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/13		101	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/13		101	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/13		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/13		106	%	75 - 125
			Acid Extractable Boron (B)	2012/11/13		97	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/13		103	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/13		99	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/13		96	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/13		94	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/13		97	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/13		103	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/13		102	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/13		100	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/13		100	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/13		97	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/13		107	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/13		102	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/13		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/13		102	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/13		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/13		103	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/13		103	%	80 - 120
			Acid Extractable Boron (B)	2012/11/13		101	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/13		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/13		98	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/13		97	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/13		98	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/13		101	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/13		100	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/13		103	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/13		100	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/13		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/13		100	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/13		107	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/13		99	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/13		103	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/13	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/13	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/13	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/13	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/13	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/13	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/13	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/13	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/13	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/13	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/13	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/13	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/13	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/13	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/13	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/13	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/13	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/13	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/13	NC		%	30

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MMM Group Limited
Attention: Carolyn Adams
Client Project #: 10-05015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H6804

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3033594	JBW	RPD	Acid Extractable Arsenic (As)	2012/11/13	NC		%	30
			Acid Extractable Barium (Ba)	2012/11/13	2.0		%	30
			Acid Extractable Beryllium (Be)	2012/11/13	NC		%	30
			Acid Extractable Boron (B)	2012/11/13	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/13	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/13	2.8		%	30
			Acid Extractable Cobalt (Co)	2012/11/13	2.6		%	30
			Acid Extractable Copper (Cu)	2012/11/13	1.5		%	30
			Acid Extractable Lead (Pb)	2012/11/13	1.9		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/13	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/13	0.6		%	30
			Acid Extractable Selenium (Se)	2012/11/13	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/13	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/13	NC		%	30
			Acid Extractable Uranium (U)	2012/11/13	3.0		%	30
			Acid Extractable Vanadium (V)	2012/11/13	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/13	0.5		%	30
3033976	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/13		98	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/13	<0.050		ug/g	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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Validation Signature Page

Maxxam Job #: B2H6804

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere, Scientific Services

==========

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Your Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C FLOOR
Your C.O.C. #: 36548219, 365482-19-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H7335
Received: 2012/11/12, 14:30

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	4	2012/11/13	2012/11/13	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	4	2012/11/13	2012/11/13	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2H7335
Report Date: 2012/11/13

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C FLOOR

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PO5587	PO5588	PO5589	PO5590		
Sampling Date			2012/11/12 10:30	2012/11/12 10:30	2012/11/12 10:30	2012/11/12 10:30		
COC Number			365482-19-01	365482-19-01	365482-19-01	365482-19-01		
	Units	**Criteria**	**C-FL-5C-A**	**C-FL-5C-B**	**C-FL-5C-C**	**C-FL-5C-FD**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.11	0.075	0.17	0.089	0.050	3034175
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	<0.20	<0.20	<0.20	0.20	3034233
Acid Extractable Arsenic (As)	ug/g	**18**	4.7	2.2	2.3	3.6	1.0	3034233
Acid Extractable Barium (Ba)	ug/g	**220**	29	19	28	25	0.50	3034233
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.30	0.21	0.37	0.31	0.20	3034233
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	3034233
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	<0.10	<0.10	<0.10	0.10	3034233
Acid Extractable Chromium (Cr)	ug/g	**70**	10	8.5	11	9.9	1.0	3034233
Acid Extractable Cobalt (Co)	ug/g	**21**	3.8	3.3	3.7	3.6	0.10	3034233
Acid Extractable Copper (Cu)	ug/g	**92**	12	9.2	24	8.4	0.50	3034233
Acid Extractable Lead (Pb)	ug/g	**120**	13	5.2	6.6	9.1	1.0	3034233
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	3034233
Acid Extractable Nickel (Ni)	ug/g	**82**	6.5	4.7	6.4	5.9	0.50	3034233
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	3034233
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	3034233
Acid Extractable Thallium (Tl)	ug/g	**1**	0.068	<0.050	0.054	<0.050	0.050	3034233
Acid Extractable Uranium (U)	ug/g	**2.5**	0.34	0.32	0.35	0.38	0.050	3034233
Acid Extractable Vanadium (V)	ug/g	**86**	24	20	25	22	5.0	3034233
Acid Extractable Zinc (Zn)	ug/g	**290**	19	14	24	16	5.0	3034233

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H7335
Report Date: 2012/11/13

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/AREA C FLOOR

Package 1	3.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C FLOOR

Quality Assurance Report

Maxxam Job Number: MB2H7335

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3034175	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/13		99	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/13	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/11/13	NC		%	35
3034233	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/13		98	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/13		100	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/13		NC (1)	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/13		102	%	75 - 125
			Acid Extractable Boron (B)	2012/11/13		98	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/13		99	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/13		95	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/13		92	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/13		NC (1)	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/13		96	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/13		102	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/13		99	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/13		102	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/13		98	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/13		95	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/13		107	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/13		101	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/13		NC (1)	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/13		96	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/13		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/13		99	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/13		99	%	80 - 120
			Acid Extractable Boron (B)	2012/11/13		97	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/13		98	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/13		95	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/13		94	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/13		95	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/13		99	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/13		98	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/13		100	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/13		100	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/13		96	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/13		96	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/13		104	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/13		97	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/13		100	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/13	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/13	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/13	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/13	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/13	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/13	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/13	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/13	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/13	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/13	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/13	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/13	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/13	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/13	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/13	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/13	<0.050		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA C FLOOR

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H7335

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3034233	VIV	Method Blank	Acid Extractable Vanadium (V)	2012/11/13	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/13	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/13	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/13	NC		%	30
			Acid Extractable Barium (Ba)	2012/11/13	1.3		%	30
			Acid Extractable Beryllium (Be)	2012/11/13	NC		%	30
			Acid Extractable Boron (B)	2012/11/13	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/13	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/13	6.4		%	30
			Acid Extractable Cobalt (Co)	2012/11/13	3.7		%	30
			Acid Extractable Copper (Cu)	2012/11/13	2.0		%	30
			Acid Extractable Lead (Pb)	2012/11/13	5.3		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/13	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/13	11.3		%	30
			Acid Extractable Selenium (Se)	2012/11/13	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/13	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/13	NC		%	30
			Acid Extractable Uranium (U)	2012/11/13	0.8		%	30
			Acid Extractable Vanadium (V)	2012/11/13	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/13	1.4		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) The recovery in the matrix spike was not calculated (NC). Spiked concentration was less than 2x that native to the sample.

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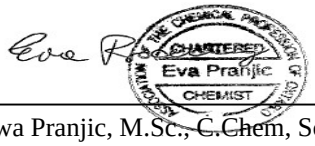
Validation Signature Page

Maxxam Job #: B2H7335

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 10-05015-018-CA1
Site Location: SUMMER HILL WOODS/AREA C
Your C.O.C. #: 36548217, 365482-17-01

Attention: Carolyn Adams
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/19

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H8945
Received: 2012/11/14, 14:46

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Moisture	3	N/A	2012/11/15	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	3	2012/11/15	2012/11/16	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2H8945
Report Date: 2012/11/19

MMM Group Limited
Client Project #: 10-05015-018-CA1
Site Location: SUMMER HILL WOODS/AREA C

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PP3571	PP3572	PP3573		
Sampling Date		2012/11/14 11:20	2012/11/14 11:20	2012/11/14 11:20		
COC Number		365482-17-01	365482-17-01	365482-17-01		
	Units	**C FL2P-A**	**C FL2P-B**	**C FL2P-C**	**RDL**	**QC Batch**
Inorganics						
Moisture	%	14	13	17	1.0	3037203

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2H8945
Report Date: 2012/11/19

MMM Group Limited
Client Project #: 10-05015-018-CA1
Site Location: SUMMER HILL WOODS/AREA C

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PP3571	PP3572		PP3573		
Sampling Date			2012/11/14 11:20	2012/11/14 11:20		2012/11/14 11:20		
COC Number			365482-17-01	365482-17-01		365482-17-01		
	Units	**Criteria**	**C FL2P-A**	**C FL2P-B**	**RDL**	**C FL2P-C**	**RDL**	**QC Batch**
Pesticides & Herbicides								
Aldrin	ug/g	**0.05**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
a-Chlordane	ug/g	**0.05**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
g-Chlordane	ug/g	**0.05**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
Chlordane (Total)	ug/g	**0.05**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
o,p-DDD	ug/g	**0.05**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
p,p-DDD	ug/g	**0.05**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
o,p-DDE	ug/g	**0.05**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
p,p-DDE	ug/g	**0.05**	0.0070	0.0020	0.0020	**0.060 (1)**	0.020	3037035
o,p-DDE + p,p-DDE	ug/g	**-**	0.0070	0.0020	0.0020	0.060	0.020	3037035
o,p-DDT	ug/g	**1.4**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
p,p-DDT	ug/g	**1.4**	<0.0020	<0.0020	0.0020	0.0070	0.0020	3037035
o,p-DDT + p,p-DDT	ug/g	**-**	<0.0020	<0.0020	0.0020	0.0070	0.0020	3037035
Dieldrin	ug/g	**0.05**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
Lindane	ug/g	**0.01**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
Endosulfan I (alpha)	ug/g	**0.04**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
Endosulfan II	ug/g	**0.04**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
Total Endosulfan	ug/g	**-**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
Endrin	ug/g	**0.04**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
Heptachlor	ug/g	**0.05**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
Heptachlor epoxide	ug/g	**0.05**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
Hexachlorobenzene	ug/g	**0.01**	<0.0020	<0.0020	0.0020	<0.0020	0.0020	3037035
Hexachlorobutadiene	ug/g	**0.01**	<0.0050	<0.0050	0.0050	<0.0050	0.0050	3037035
Hexachloroethane	ug/g	**0.01**	<0.0050	<0.0050	0.0050	<0.0050	0.0050	3037035
Methoxychlor	ug/g	**0.05**	<0.0050	<0.0050	0.0050	<0.0050	0.0050	3037035
Aroclor 1242	ug/g	**-**	<0.015	<0.015	0.015	<0.015	0.015	3037035
Aroclor 1248	ug/g	**-**	<0.015	<0.015	0.015	<0.015	0.015	3037035
Aroclor 1254	ug/g	**-**	<0.015	<0.015	0.015	<0.015	0.015	3037035

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
(1) Due to high concentrations of the target analyte, sample required dilution. Detection limits were adjusted accordingly.

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Maxxam Job #: B2H8945
Report Date: 2012/11/19

MMM Group Limited
Client Project #: 10-05015-018-CA1
Site Location: SUMMER HILL WOODS/AREA C

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PP3571	PP3572		PP3573		
Sampling Date			2012/11/14 11:20	2012/11/14 11:20		2012/11/14 11:20		
COC Number			365482-17-01	365482-17-01		365482-17-01		
	Units	**Criteria**	**C FL2P-A**	**C FL2P-B**	**RDL**	**C FL2P-C**	**RDL**	**QC Batch**
Aroclor 1260	ug/g	**-**	<0.015	<0.015	0.015	<0.015	0.015	3037035
Total PCB	ug/g	**0.3**	<0.015	<0.015	0.015	<0.015	0.015	3037035
Surrogate Recovery (%)								
2,4,5,6-Tetrachloro-m-xylene	%	-	101	108		109		3037035
Decachlorobiphenyl	%	-	86	103		95		3037035

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H8945
Report Date: 2012/11/19

MMM Group Limited
Client Project #: 10-05015-018-CA1
Site Location: SUMMER HILL WOODS/AREA C

Package 1	13.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Carolyn Adams
Client Project #: 10-05015-018-CA1
P.O. #:
Site Location: SUMMER HILL WOODS/AREA C

Quality Assurance Report

Maxxam Job Number: MB2H8945

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3037035	NZ1	Matrix Spike						
		[PP3572-01]	2,4,5,6-Tetrachloro-m-xylene	2012/11/16		130	%	50 - 130
			Decachlorobiphenyl	2012/11/16		104	%	50 - 130
			Aldrin	2012/11/16		109	%	50 - 130
			a-Chlordane	2012/11/16		102	%	50 - 130
			g-Chlordane	2012/11/16		114	%	50 - 130
			o,p-DDD	2012/11/16		109	%	50 - 130
			p,p-DDD	2012/11/16		118	%	50 - 130
			o,p-DDE	2012/11/16		101	%	50 - 130
			p,p-DDE	2012/11/16		116	%	50 - 130
			o,p-DDT	2012/11/16		115	%	50 - 130
			p,p-DDT	2012/11/16		129	%	50 - 130
			Dieldrin	2012/11/16		110	%	50 - 130
			Lindane	2012/11/16		104	%	50 - 130
			Endosulfan I (alpha)	2012/11/16		97	%	50 - 130
			Endosulfan II	2012/11/16		116	%	50 - 130
			Endrin	2012/11/16		111	%	50 - 130
			Heptachlor	2012/11/16		103	%	50 - 130
			Heptachlor epoxide	2012/11/16		96	%	50 - 130
			Hexachlorobenzene	2012/11/16		116	%	50 - 130
			Hexachlorobutadiene	2012/11/16		96	%	50 - 130
			Hexachloroethane	2012/11/16		95	%	50 - 130
			Methoxychlor	2012/11/16		105	%	50 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/11/16		127	%	50 - 130
			Decachlorobiphenyl	2012/11/16		106	%	50 - 130
			Aldrin	2012/11/16		102	%	50 - 130
			a-Chlordane	2012/11/16		100	%	50 - 130
			g-Chlordane	2012/11/16		106	%	50 - 130
			o,p-DDD	2012/11/16		102	%	50 - 130
			p,p-DDD	2012/11/16		125	%	50 - 130
			o,p-DDE	2012/11/16		86	%	50 - 130
			p,p-DDE	2012/11/16		105	%	50 - 130
			o,p-DDT	2012/11/16		121	%	50 - 130
			p,p-DDT	2012/11/16		117	%	50 - 130
			Dieldrin	2012/11/16		104	%	50 - 130
			Lindane	2012/11/16		112	%	50 - 130
			Endosulfan I (alpha)	2012/11/16		96	%	50 - 130
			Endosulfan II	2012/11/16		113	%	50 - 130
			Endrin	2012/11/16		107	%	50 - 130
			Heptachlor	2012/11/16		97	%	50 - 130
			Heptachlor epoxide	2012/11/16		101	%	50 - 130
			Hexachlorobenzene	2012/11/16		107	%	50 - 130
			Hexachlorobutadiene	2012/11/16		95	%	50 - 130
			Hexachloroethane	2012/11/16		100	%	50 - 130
			Methoxychlor	2012/11/16		107	%	50 - 130
		RPD	Aroclor 1242	2012/11/16	NC		%	40
			Total PCB	2012/11/16	NC		%	40
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/11/16		130	%	50 - 130
			Decachlorobiphenyl	2012/11/16		99	%	50 - 130
			Aldrin	2012/11/16	<0.0020		ug/g	
			a-Chlordane	2012/11/16	<0.0020		ug/g	
			g-Chlordane	2012/11/16	<0.0020		ug/g	
			Chlordane (Total)	2012/11/16	<0.0020		ug/g	
			o,p-DDD	2012/11/16	<0.0020		ug/g	
			p,p-DDD	2012/11/16	<0.0020		ug/g	

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MMM Group Limited
Attention: Carolyn Adams
Client Project #: 10-05015-018-CA1
P.O. #:
Site Location: SUMMER HILL WOODS/AREA C

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H8945

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3037035	NZ1	Method Blank	o,p-DDD + p,p-DDD	2012/11/16	<0.0020		ug/g	
			o,p-DDE	2012/11/16	<0.0020		ug/g	
			p,p-DDE	2012/11/16	<0.0020		ug/g	
			o,p-DDE + p,p-DDE	2012/11/16	<0.0020		ug/g	
			o,p-DDT	2012/11/16	<0.0020		ug/g	
			p,p-DDT	2012/11/16	<0.0020		ug/g	
			o,p-DDT + p,p-DDT	2012/11/16	<0.0020		ug/g	
			Dieldrin	2012/11/16	<0.0020		ug/g	
			Lindane	2012/11/16	<0.0020		ug/g	
			Endosulfan I (alpha)	2012/11/16	<0.0020		ug/g	
			Endosulfan II	2012/11/16	<0.0020		ug/g	
			Total Endosulfan	2012/11/16	<0.0020		ug/g	
			Endrin	2012/11/16	<0.0020		ug/g	
			Heptachlor	2012/11/16	<0.0020		ug/g	
			Heptachlor epoxide	2012/11/16	<0.0020		ug/g	
			Hexachlorobenzene	2012/11/16	<0.0020		ug/g	
			Hexachlorobutadiene	2012/11/16	<0.0050		ug/g	
			Hexachloroethane	2012/11/16	<0.0050		ug/g	
			Methoxychlor	2012/11/16	<0.0050		ug/g	
			Aroclor 1242	2012/11/16	<0.015		ug/g	
			Aroclor 1248	2012/11/16	<0.015		ug/g	
			Aroclor 1254	2012/11/16	<0.015		ug/g	
			Aroclor 1260	2012/11/16	<0.015		ug/g	
			Total PCB	2012/11/16	<0.015		ug/g	
		RPD [PP3572-01]	Aldrin	2012/11/16	NC		%	40
			a-Chlordane	2012/11/16	NC		%	40
			g-Chlordane	2012/11/16	NC		%	40
			Chlordane (Total)	2012/11/16	NC		%	40
			o,p-DDD	2012/11/16	NC		%	40
			p,p-DDD	2012/11/16	NC		%	40
			o,p-DDD + p,p-DDD	2012/11/16	NC		%	40
			o,p-DDE	2012/11/16	NC		%	40
			p,p-DDE	2012/11/16	NC		%	40
			o,p-DDE + p,p-DDE	2012/11/16	NC		%	40
			o,p-DDT	2012/11/16	NC		%	40
			p,p-DDT	2012/11/16	NC		%	40
			o,p-DDT + p,p-DDT	2012/11/16	NC		%	40
			Dieldrin	2012/11/16	NC		%	40
			Lindane	2012/11/16	NC		%	40
			Endosulfan I (alpha)	2012/11/16	NC		%	40
			Endosulfan II	2012/11/16	NC		%	40
			Total Endosulfan	2012/11/16	NC		%	40
			Endrin	2012/11/16	NC		%	40
			Heptachlor	2012/11/16	NC		%	40
			Heptachlor epoxide	2012/11/16	NC		%	40
			Hexachlorobenzene	2012/11/16	NC		%	40
			Hexachlorobutadiene	2012/11/16	NC		%	40
			Hexachloroethane	2012/11/16	NC		%	40
			Methoxychlor	2012/11/16	NC		%	40
			Aroclor 1242	2012/11/16	NC		%	40
			Aroclor 1248	2012/11/16	NC		%	40
			Aroclor 1254	2012/11/16	NC		%	40
			Aroclor 1260	2012/11/16	NC		%	40
			Total PCB	2012/11/16	NC		%	40
3037203	JK1	RPD [PP3573-01]	Moisture	2012/11/15	3.0		%	20

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MMM Group Limited
Attention: Carolyn Adams
Client Project #: 10-05015-018-CA1
P.O. #:
Site Location: SUMMER HILL WOODS/AREA C

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H8945

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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Validation Signature Page

Maxxam Job #: B2H8945

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS/AREA D
Your C.O.C. #: 36548239, 365482-39-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/02

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2G8900
Received: 2012/10/29, 15:36

Sample Matrix: Soil
Samples Received: 19

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	14	2012/11/01	2012/11/01	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	14	2012/11/01	2012/11/01	CAM SOP-00447	EPA 6020
Moisture	5	N/A	2012/10/30	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	5	2012/10/31	2012/10/31	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2G8900
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS/AREA D

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PK1893	PK1894	PK1900	PK1901	PK1902		
Sampling Date		2012/10/29	2012/10/29	2012/10/29	2012/10/29	2012/10/29		
COC Number		365482-39-01	365482-39-01	365482-39-01	365482-39-01	365482-39-01		
	Units	**D-W-1P**	**D-W-2P**	**D-FL-1P**	**D-FL-2P**	**D-FL-FDP**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	24	30	19	18	19	1.0	3019238

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2G8900
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS/AREA D

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PK1884	PK1885	PK1886	PK1887	PK1888		
Sampling Date			2012/10/29	2012/10/29	2012/10/29	2012/10/29	2012/10/29		
COC Number			365482-39-01	365482-39-01	365482-39-01	365482-39-01	365482-39-01		
	Units	**Criteria**	**D-W-1**	**D-W-2**	**D-W-3**	**D-W-4**	**D-W-5**	**RDL**	**QC Batch**
Metals									
Hot Water Ext. Boron (B)	ug/g	**-**	0.44	0.47	0.20	0.64	0.49	0.050	3022253
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	0.46	<0.20	0.35	0.36	0.20	3022240
Acid Extractable Arsenic (As)	ug/g	**18**	12	**22**	9.8	**28**	**30**	1.0	3022240
Acid Extractable Barium (Ba)	ug/g	**220**	30	27	41	40	27	0.50	3022240
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.25	0.25	0.26	0.24	0.24	0.20	3022240
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	3022240
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	0.11	0.14	0.17	<0.10	0.10	3022240
Acid Extractable Chromium (Cr)	ug/g	**70**	8.4	8.1	7.8	8.4	7.5	1.0	3022240
Acid Extractable Cobalt (Co)	ug/g	**21**	2.4	2.3	2.5	2.8	2.4	0.10	3022240
Acid Extractable Copper (Cu)	ug/g	**92**	14	11	8.0	11	13	0.50	3022240
Acid Extractable Lead (Pb)	ug/g	**120**	38	57	29	100	97	1.0	3022240
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3022240
Acid Extractable Nickel (Ni)	ug/g	**82**	4.4	4.3	4.1	5.1	4.2	0.50	3022240
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3022240
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	3022240
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	<0.050	0.050	<0.050	0.057	0.050	3022240
Acid Extractable Uranium (U)	ug/g	**2.5**	0.25	0.27	0.24	0.33	0.26	0.050	3022240
Acid Extractable Vanadium (V)	ug/g	**86**	18	18	17	17	16	5.0	3022240
Acid Extractable Zinc (Zn)	ug/g	**290**	18	19	21	160	21	5.0	3022240

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G8900
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS/AREA D

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PK1889	PK1890	PK1891	PK1892	PK1895		
Sampling Date			2012/10/29	2012/10/29	2012/10/29	2012/10/29	2012/10/29		
COC Number			365482-39-01	365482-39-01	365482-39-01	365482-39-01	365482-39-01		
	Units	**Criteria**	**D-W-6**	**D-W-7**	**D-W-8**	**D-W FD**	**D-FL-1**	**RDL**	**QC Batch**
Metals									
Hot Water Ext. Boron (B)	ug/g	**-**	0.60	0.35	0.82	0.63	0.66	0.050	3022253
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.31	0.45	0.28	0.31	0.71	0.20	3022240
Acid Extractable Arsenic (As)	ug/g	**18**	**25**	**33**	**24**	**20**	**84**	1.0	3022240
Acid Extractable Barium (Ba)	ug/g	**220**	24	39	25	25	17	0.50	3022240
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.23	0.30	0.24	0.23	0.22	0.20	3022240
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	3022240
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.11	0.20	0.14	0.11	0.11	0.10	3022240
Acid Extractable Chromium (Cr)	ug/g	**70**	8.0	9.2	7.7	8.4	7.7	1.0	3022240
Acid Extractable Cobalt (Co)	ug/g	**21**	2.6	2.9	2.2	2.7	2.2	0.10	3022240
Acid Extractable Copper (Cu)	ug/g	**92**	16	19	22	18	33	0.50	3022240
Acid Extractable Lead (Pb)	ug/g	**120**	80	100	75	64	**270**	1.0	3022240
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3022240
Acid Extractable Nickel (Ni)	ug/g	**82**	4.7	5.5	4.5	4.6	4.3	0.50	3022240
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3022240
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	3022240
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	0.061	<0.050	<0.050	0.065	0.050	3022240
Acid Extractable Uranium (U)	ug/g	**2.5**	0.26	0.29	0.24	0.28	0.32	0.050	3022240
Acid Extractable Vanadium (V)	ug/g	**86**	18	20	17	19	16	5.0	3022240
Acid Extractable Zinc (Zn)	ug/g	**290**	21	25	26	20	19	5.0	3022240

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G8900
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS/AREA D

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PK1896	PK1897	PK1898	PK1899		
Sampling Date			2012/10/29	2012/10/29	2012/10/29	2012/10/29		
COC Number			365482-39-01	365482-39-01	365482-39-01	365482-39-01		
	Units	**Criteria**	**D-FL-2**	**D-FL-3**	**D-FL-4**	**D-FL-5**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.45	0.50	1.2	0.14	0.050	3022253
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.22	0.68	0.25	<0.20	0.20	3022240
Acid Extractable Arsenic (As)	ug/g	**18**	7.5	**57**	18	5.7	1.0	3022240
Acid Extractable Barium (Ba)	ug/g	**220**	29	35	30	30	0.50	3022240
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.29	0.26	<0.20	0.22	0.20	3022240
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	3022240
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	0.18	0.13	<0.10	0.10	3022240
Acid Extractable Chromium (Cr)	ug/g	**70**	9.3	9.0	6.8	8.5	1.0	3022240
Acid Extractable Cobalt (Co)	ug/g	**21**	2.5	2.5	2.3	2.6	0.10	3022240
Acid Extractable Copper (Cu)	ug/g	**92**	9.6	21	20	7.8	0.50	3022240
Acid Extractable Lead (Pb)	ug/g	**120**	18	**160**	59	16	1.0	3022240
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	3022240
Acid Extractable Nickel (Ni)	ug/g	**82**	4.8	4.8	4.2	4.4	0.50	3022240
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	3022240
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	3022240
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	0.063	<0.050	<0.050	0.050	3022240
Acid Extractable Uranium (U)	ug/g	**2.5**	0.30	0.30	0.22	0.27	0.050	3022240
Acid Extractable Vanadium (V)	ug/g	**86**	22	19	15	20	5.0	3022240
Acid Extractable Zinc (Zn)	ug/g	**290**	19	46	25	19	5.0	3022240

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G8900
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS/AREA D

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PK1893		PK1894		PK1900	PK1901		
Sampling Date			2012/10/29		2012/10/29		2012/10/29	2012/10/29		
COC Number			365482-39-01		365482-39-01		365482-39-01	365482-39-01		
	Units	**Criteria**	**D-W-1P**	**RDL**	**D-W-2P**	**RDL**	**D-FL-1P**	**D-FL-2P**	**RDL**	**QC Batch**
Pesticides & Herbicides										
Aldrin	ug/g	**0.05**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
a-Chlordane	ug/g	**0.05**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
g-Chlordane	ug/g	**0.05**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
Chlordane (Total)	ug/g	**0.05**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
o,p-DDD	ug/g	**0.05**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
p,p-DDD	ug/g	**0.05**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
o,p-DDE	ug/g	**0.05**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
p,p-DDE	ug/g	**0.05**	0.040	0.010	**0.21**	0.020	0.0080	<0.0020	0.0020	3020760
o,p-DDE + p,p-DDE	ug/g	**-**	0.040	0.010	0.21	0.020	0.0080	<0.0020	0.0020	3020760
o,p-DDT	ug/g	**1.4**	0.0030	0.0020	0.0040	0.0020	<0.0020	<0.0020	0.0020	3020760
p,p-DDT	ug/g	**1.4**	0.018	0.0020	0.070 (1)	0.020	0.0040	<0.0020	0.0020	3020760
o,p-DDT + p,p-DDT	ug/g	**-**	0.021	0.0020	0.070 (1)	0.020	0.0040	<0.0020	0.0020	3020760
Dieldrin	ug/g	**0.05**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
Lindane	ug/g	**0.01**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
Endosulfan I (alpha)	ug/g	**0.04**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
Endosulfan II	ug/g	**0.04**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
Total Endosulfan	ug/g	**-**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
Endrin	ug/g	**0.04**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
Heptachlor	ug/g	**0.05**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
Heptachlor epoxide	ug/g	**0.05**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
Hexachlorobenzene	ug/g	**0.01**	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	3020760
Hexachlorobutadiene	ug/g	**0.01**	<0.0050	0.0050	<0.0050	0.0050	<0.0050	<0.0050	0.0050	3020760
Hexachloroethane	ug/g	**0.01**	<0.0050	0.0050	<0.0050	0.0050	<0.0050	<0.0050	0.0050	3020760
Methoxychlor	ug/g	**0.05**	<0.0050	0.0050	<0.0050	0.0050	<0.0050	<0.0050	0.0050	3020760
Aroclor 1242	ug/g	**-**	<0.015	0.015	<0.015	0.015	<0.015	<0.015	0.015	3020760
Aroclor 1248	ug/g	**-**	<0.015	0.015	<0.015	0.015	<0.015	<0.015	0.015	3020760
Aroclor 1254	ug/g	**-**	<0.015	0.015	<0.015	0.015	<0.015	<0.015	0.015	3020760
Aroclor 1260	ug/g	**-**	<0.015	0.015	<0.015	0.015	<0.015	<0.015	0.015	3020760
Total PCB	ug/g	**0.3**	<0.015	0.015	<0.015	0.015	<0.015	<0.015	0.015	3020760

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
(1) Test Group: Due to high concentrations of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Maxxam Job #: B2G8900
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS/AREA D

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PK1893		PK1894		PK1900	PK1901		
Sampling Date			2012/10/29		2012/10/29		2012/10/29	2012/10/29		
COC Number			365482-39-01		365482-39-01		365482-39-01	365482-39-01		
	Units	**Criteria**	**D-W-1P**	**RDL**	**D-W-2P**	**RDL**	**D-FL-1P**	**D-FL-2P**	**RDL**	**QC Batch**
Surrogate Recovery (%)										
2,4,5,6-Tetrachloro-m-xylene	%	-	98		101		99	99		3020760
Decachlorobiphenyl	%	-	92		105		107	100		3020760

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G8900
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS/AREA D

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PK1902		
Sampling Date			2012/10/29		
COC Number			365482-39-01		
	Units	**Criteria**	**D-FL-FDP**	**RDL**	**QC Batch**
Pesticides & Herbicides					
Aldrin	ug/g	**0.05**	<0.0020	0.0020	3020760
a-Chlordane	ug/g	**0.05**	<0.0020	0.0020	3020760
g-Chlordane	ug/g	**0.05**	<0.0020	0.0020	3020760
Chlordane (Total)	ug/g	**0.05**	<0.0020	0.0020	3020760
o,p-DDD	ug/g	**0.05**	<0.0020	0.0020	3020760
p,p-DDD	ug/g	**0.05**	<0.0020	0.0020	3020760
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0020	0.0020	3020760
o,p-DDE	ug/g	**0.05**	<0.0020	0.0020	3020760
p,p-DDE	ug/g	**0.05**	0.0060	0.0020	3020760
o,p-DDE + p,p-DDE	ug/g	**-**	0.0060	0.0020	3020760
o,p-DDT	ug/g	**1.4**	<0.0020	0.0020	3020760
p,p-DDT	ug/g	**1.4**	0.0030	0.0020	3020760
o,p-DDT + p,p-DDT	ug/g	**-**	0.0030	0.0020	3020760
Dieldrin	ug/g	**0.05**	<0.0020	0.0020	3020760
Lindane	ug/g	**0.01**	<0.0020	0.0020	3020760
Endosulfan I (alpha)	ug/g	**0.04**	<0.0020	0.0020	3020760
Endosulfan II	ug/g	**0.04**	<0.0020	0.0020	3020760
Total Endosulfan	ug/g	**-**	<0.0020	0.0020	3020760
Endrin	ug/g	**0.04**	<0.0020	0.0020	3020760
Heptachlor	ug/g	**0.05**	<0.0020	0.0020	3020760
Heptachlor epoxide	ug/g	**0.05**	<0.0020	0.0020	3020760
Hexachlorobenzene	ug/g	**0.01**	<0.0020	0.0020	3020760
Hexachlorobutadiene	ug/g	**0.01**	<0.0050	0.0050	3020760
Hexachloroethane	ug/g	**0.01**	<0.0050	0.0050	3020760
Methoxychlor	ug/g	**0.05**	<0.0050	0.0050	3020760
Aroclor 1242	ug/g	**-**	<0.015	0.015	3020760
Aroclor 1248	ug/g	**-**	<0.015	0.015	3020760
Aroclor 1254	ug/g	**-**	<0.015	0.015	3020760
Aroclor 1260	ug/g	**-**	<0.015	0.015	3020760
Total PCB	ug/g	**0.3**	<0.015	0.015	3020760

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2G8900
Report Date: 2012/11/02

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS/AREA D

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PK1902		
Sampling Date			2012/10/29		
COC Number			365482-39-01		
	Units	**Criteria**	**D-FL-FDP**	**RDL**	**QC Batch**
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	-	84		3020760
Decachlorobiphenyl	%	-	92		3020760

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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MMM Group Limited
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Site Location: SUMMERHILL WOODS/AREA D

Package 1	6.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Sample PK1893-01: OC Pesticide Analysis: Due to high concentration of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Sample PK1894-01: OC Pesticide Analysis: Due to high concentration of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CAI
P.O. #:
Site Location: SUMMERHILL WOODS/AREA D

Quality Assurance Report

Maxxam Job Number: MB2G8900

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3019238	JL2	RPD	Moisture	2012/10/30	7.7		%	20
3020760	NZ1	Matrix Spike						
		[PK1901-01]	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		90	%	50 - 130
			Decachlorobiphenyl	2012/10/31		94	%	50 - 130
			Aldrin	2012/10/31		97	%	50 - 130
			a-Chlordane	2012/10/31		85	%	50 - 130
			g-Chlordane	2012/10/31		86	%	50 - 130
			o,p-DDD	2012/10/31		86	%	50 - 130
			p,p-DDD	2012/10/31		104	%	50 - 130
			o,p-DDE	2012/10/31		100	%	50 - 130
			p,p-DDE	2012/10/31		113	%	50 - 130
			o,p-DDT	2012/10/31		102	%	50 - 130
			p,p-DDT	2012/10/31		87	%	50 - 130
			Dieldrin	2012/10/31		98	%	50 - 130
			Lindane	2012/10/31		93	%	50 - 130
			Endosulfan I (alpha)	2012/10/31		72	%	50 - 130
			Endosulfan II	2012/10/31		87	%	50 - 130
			Endrin	2012/10/31		130	%	50 - 130
			Heptachlor	2012/10/31		96	%	50 - 130
			Heptachlor epoxide	2012/10/31		81	%	50 - 130
			Hexachlorobenzene	2012/10/31		88	%	50 - 130
			Hexachlorobutadiene	2012/10/31		76	%	50 - 130
			Hexachloroethane	2012/10/31		72	%	50 - 130
			Methoxychlor	2012/10/31		95	%	50 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		91	%	50 - 130
			Decachlorobiphenyl	2012/10/31		101	%	50 - 130
			Aldrin	2012/10/31		100	%	50 - 130
			a-Chlordane	2012/10/31		88	%	50 - 130
			g-Chlordane	2012/10/31		86	%	50 - 130
			o,p-DDD	2012/10/31		95	%	50 - 130
			p,p-DDD	2012/10/31		103	%	50 - 130
			o,p-DDE	2012/10/31		103	%	50 - 130
			p,p-DDE	2012/10/31		109	%	50 - 130
			o,p-DDT	2012/10/31		103	%	50 - 130
			p,p-DDT	2012/10/31		90	%	50 - 130
			Dieldrin	2012/10/31		101	%	50 - 130
			Lindane	2012/10/31		88	%	50 - 130
			Endosulfan I (alpha)	2012/10/31		76	%	50 - 130
			Endosulfan II	2012/10/31		88	%	50 - 130
			Endrin	2012/10/31		128	%	50 - 130
			Heptachlor	2012/10/31		95	%	50 - 130
			Heptachlor epoxide	2012/10/31		87	%	50 - 130
			Hexachlorobenzene	2012/10/31		93	%	50 - 130
			Hexachlorobutadiene	2012/10/31		82	%	50 - 130
			Hexachloroethane	2012/10/31		87	%	50 - 130
			Methoxychlor	2012/10/31		92	%	50 - 130
		RPD	Aroclor 1242	2012/10/31	NC		%	40
			Total PCB	2012/10/31	NC		%	40
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		100	%	50 - 130
			Decachlorobiphenyl	2012/10/31		113	%	50 - 130
			Aldrin	2012/10/31	<0.0020		ug/g	
			a-Chlordane	2012/10/31	<0.0020		ug/g	
			g-Chlordane	2012/10/31	<0.0020		ug/g	
			Chlordane (Total)	2012/10/31	<0.0020		ug/g	
			o,p-DDD	2012/10/31	<0.0020		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CAI
P.O. #:
Site Location: SUMMERHILL WOODS/AREA D

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G8900

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3020760	NZ1	Method Blank	p,p-DDD	2012/10/31	<0.0020		ug/g	
			o,p-DDD + p,p-DDD	2012/10/31	<0.0020		ug/g	
			o,p-DDE	2012/10/31	<0.0020		ug/g	
			p,p-DDE	2012/10/31	<0.0020		ug/g	
			o,p-DDE + p,p-DDE	2012/10/31	<0.0020		ug/g	
			o,p-DDT	2012/10/31	<0.0020		ug/g	
			p,p-DDT	2012/10/31	<0.0020		ug/g	
			o,p-DDT + p,p-DDT	2012/10/31	<0.0020		ug/g	
			Dieldrin	2012/10/31	<0.0020		ug/g	
			Lindane	2012/10/31	<0.0020		ug/g	
			Endosulfan I (alpha)	2012/10/31	<0.0020		ug/g	
			Endosulfan II	2012/10/31	<0.0020		ug/g	
			Total Endosulfan	2012/10/31	<0.0020		ug/g	
			Endrin	2012/10/31	<0.0020		ug/g	
			Heptachlor	2012/10/31	<0.0020		ug/g	
			Heptachlor epoxide	2012/10/31	<0.0020		ug/g	
			Hexachlorobenzene	2012/10/31	<0.0020		ug/g	
			Hexachlorobutadiene	2012/10/31	<0.0050		ug/g	
			Hexachloroethane	2012/10/31	<0.0050		ug/g	
			Methoxychlor	2012/10/31	<0.0050		ug/g	
			Aroclor 1242	2012/10/31	<0.015		ug/g	
			Aroclor 1248	2012/10/31	<0.015		ug/g	
			Aroclor 1254	2012/10/31	<0.015		ug/g	
			Aroclor 1260	2012/10/31	<0.015		ug/g	
			Total PCB	2012/10/31	<0.015		ug/g	
		RPD [PK1901-01]	Aldrin	2012/10/31	NC		%	40
			a-Chlordane	2012/10/31	NC		%	40
			g-Chlordane	2012/10/31	NC		%	40
			Chlordane (Total)	2012/10/31	NC		%	40
			o,p-DDD	2012/10/31	NC		%	40
			p,p-DDD	2012/10/31	NC		%	40
			o,p-DDD + p,p-DDD	2012/10/31	NC		%	40
			o,p-DDE	2012/10/31	NC		%	40
			p,p-DDE	2012/10/31	NC		%	40
			o,p-DDE + p,p-DDE	2012/10/31	NC		%	40
			o,p-DDT	2012/10/31	NC		%	40
			p,p-DDT	2012/10/31	NC		%	40
			o,p-DDT + p,p-DDT	2012/10/31	NC		%	40
			Dieldrin	2012/10/31	NC		%	40
			Lindane	2012/10/31	NC		%	40
			Endosulfan I (alpha)	2012/10/31	NC		%	40
			Endosulfan II	2012/10/31	NC		%	40
			Total Endosulfan	2012/10/31	NC		%	40
			Endrin	2012/10/31	NC		%	40
			Heptachlor	2012/10/31	NC		%	40
			Heptachlor epoxide	2012/10/31	NC		%	40
			Hexachlorobenzene	2012/10/31	NC		%	40
			Hexachlorobutadiene	2012/10/31	NC		%	40
			Hexachloroethane	2012/10/31	NC		%	40
			Methoxychlor	2012/10/31	NC		%	40
			Aroclor 1242	2012/10/31	NC		%	40
			Aroclor 1248	2012/10/31	NC		%	40
			Aroclor 1254	2012/10/31	NC		%	40
			Aroclor 1260	2012/10/31	NC		%	40
			Total PCB	2012/10/31	NC		%	40

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CAI
P.O. #:
Site Location: SUMMERHILL WOODS/AREA D

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G8900

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3022240	VIV	Matrix Spike [PK1884-01]	Acid Extractable Antimony (Sb)	2012/11/01		89	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/01		94	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/01		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/01		94	%	75 - 125
			Acid Extractable Boron (B)	2012/11/01		86	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/01		94	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/01		90	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/01		90	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/01		90	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/01		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/01		91	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/01		94	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/01		93	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/01		92	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/01		88	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/01		98	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/01		94	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/01		101	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/01		95	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/01		102	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/01		104	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/01		98	%	80 - 120
			Acid Extractable Boron (B)	2012/11/01		96	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/01		102	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/01		96	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/01		96	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/01		96	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/01		97	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/01		97	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/01		100	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/01		97	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/01		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/01		95	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/01		104	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/01		100	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/01		104	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/01	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/01	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/01	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/01	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/01	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/01	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/01	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/01	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/01	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/01	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/01	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/01	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/01	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/01	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/01	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/01	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/01	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/01	<5.0		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CAI
P.O. #:
Site Location: SUMMERHILL WOODS/AREA D

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G8900

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3022240	VIV	RPD [PK1884-01]	Acid Extractable Antimony (Sb)	2012/11/01	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/01	1.9		%	30
			Acid Extractable Barium (Ba)	2012/11/01	1.5		%	30
			Acid Extractable Beryllium (Be)	2012/11/01	NC		%	30
			Acid Extractable Boron (B)	2012/11/01	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/01	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/01	1.1		%	30
			Acid Extractable Cobalt (Co)	2012/11/01	1.1		%	30
			Acid Extractable Copper (Cu)	2012/11/01	3.0		%	30
			Acid Extractable Lead (Pb)	2012/11/01	2.2		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/01	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/01	1.5		%	30
			Acid Extractable Selenium (Se)	2012/11/01	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/01	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/01	NC		%	30
			Acid Extractable Uranium (U)	2012/11/01	0.8		%	30
			Acid Extractable Vanadium (V)	2012/11/01	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/01	NC		%	30
3022253	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/01		99	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/01	<0.050		ug/g	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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Validation Signature Page

Maxxam Job #: B2G8900

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Cristina Carriere, Scientific Services

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 1005015018-CA1
Site Location: SUMMERHILL WOODS/AREA D CONF SAMPLES
Your C.O.C. #: 36548230, 365482-30-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/05

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H2041
Received: 2012/11/02, 14:15

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	3	2012/11/05	2012/11/05	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	3	2012/11/05	2012/11/05	CAM SOP-00447	EPA 6020

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B2H2041
Report Date: 2012/11/05

MMM Group Limited
Client Project #: 1005015018-CA1
Site Location: SUMMERHILL WOODS/AREA D CONF SAMPLES
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PL7416	PL7417	PL7418		
Sampling Date			2012/11/02 10:30	2012/11/02 10:30	2012/11/02 10:30		
COC Number			365482-30-01	365482-30-01	365482-30-01		
	Units	**Criteria**	**D-FL-IC1**	**D-FL-IC2**	**D-FL-IC3**	**RDL**	**QC Batch**
Metals							
Hot Water Ext. Boron (B)	ug/g	**-**	0.26	0.44	0.26	0.050	3025591
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	0.23	0.27	0.20	3025365
Acid Extractable Arsenic (As)	ug/g	**18**	3.7	12	14	1.0	3025365
Acid Extractable Barium (Ba)	ug/g	**220**	30	30	34	0.50	3025365
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.31	0.30	0.29	0.20	3025365
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	5.0	3025365
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	0.12	0.11	0.10	3025365
Acid Extractable Chromium (Cr)	ug/g	**70**	10	9.2	9.3	1.0	3025365
Acid Extractable Cobalt (Co)	ug/g	**21**	3.1	2.7	2.8	0.10	3025365
Acid Extractable Copper (Cu)	ug/g	**92**	3.6	7.8	7.9	0.50	3025365
Acid Extractable Lead (Pb)	ug/g	**120**	12	41	37	1.0	3025365
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	3025365
Acid Extractable Nickel (Ni)	ug/g	**82**	5.6	5.0	5.1	0.50	3025365
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	3025365
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	3025365
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	<0.050	<0.050	0.050	3025365
Acid Extractable Uranium (U)	ug/g	**2.5**	0.33	0.30	0.25	0.050	3025365
Acid Extractable Vanadium (V)	ug/g	**86**	22	19	20	5.0	3025365
Acid Extractable Zinc (Zn)	ug/g	**290**	20	20	20	5.0	3025365

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2H2041
Report Date: 2012/11/05

MMM Group Limited
Client Project #: 1005015018-CA1
Site Location: SUMMERHILL WOODS/AREA D CONF SAMPLES
Sampler Initials: RW

Package 1	8.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA D CONF SAMPLES

Quality Assurance Report

Maxxam Job Number: MB2H2041

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3025365	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/05		93	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/05		98	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/05		NC (1)	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/05		102	%	75 - 125
			Acid Extractable Boron (B)	2012/11/05		91	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/05		99	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/05		95	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/05		95	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/05		94	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/05		NC (1)	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/05		98	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/05		NC (1)	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/05		101	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/05		97	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/05		91	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/05		103	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/05		NC (1)	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/05		NC (1)	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/05		97	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/05		99	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/05		101	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/05		98	%	80 - 120
			Acid Extractable Boron (B)	2012/11/05		94	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/05		98	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/05		96	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/05		97	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/05		98	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/05		97	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/05		97	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/05		99	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/05		101	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/05		96	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/05		92	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/05		99	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/05		95	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/05		100	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/05	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/05	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/05	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/05	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/05	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/05	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/05	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/05	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/05	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/05	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/05	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/05	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/05	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/05	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/05	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/05	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/05	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/05	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/05	NC		%	30

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA D CONF SAMPLES

Quality Assurance Report (Continued)

Maxxam Job Number: MB2H2041

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3025365	VIV	RPD	Acid Extractable Arsenic (As)	2012/11/05	NC		%	30
			Acid Extractable Barium (Ba)	2012/11/05	5.4		%	30
			Acid Extractable Beryllium (Be)	2012/11/05	NC		%	30
			Acid Extractable Boron (B)	2012/11/05	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/05	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/05	1.5		%	30
			Acid Extractable Cobalt (Co)	2012/11/05	5.7		%	30
			Acid Extractable Copper (Cu)	2012/11/05	2.6		%	30
			Acid Extractable Lead (Pb)	2012/11/05	2.2		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/05	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/05	2.0		%	30
			Acid Extractable Selenium (Se)	2012/11/05	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/05	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/05	NC		%	30
			Acid Extractable Uranium (U)	2012/11/05	0.6		%	30
			Acid Extractable Vanadium (V)	2012/11/05	0.8		%	30
			Acid Extractable Zinc (Zn)	2012/11/05	0.08		%	30
3025591	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/05		98	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/05	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/11/05	NC		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) The recovery in the matrix spike was not calculated (NC). Spiked concentration was less than 2x that native to the sample.

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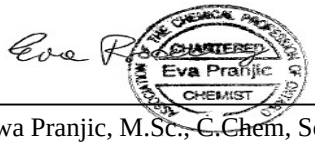
Validation Signature Page

Maxxam Job #: B2H2041

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS
Your C.O.C. #: 36548245, 365482-45-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/10/30

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2G6829
Received: 2012/10/25, 13:56

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	5	2012/10/29	2012/10/29	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	2	2012/10/29	2012/10/29	CAM SOP-00447	EPA 6020
Acid Extr. Metals (aqua regia) by ICPMS	3	2012/10/29	2012/10/30	CAM SOP-00447	EPA 6020
Moisture	1	N/A	2012/10/26	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	1	2012/10/26	2012/10/29	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B2G6829
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS
Sampler Initials: RW

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PJ0192		
Sampling Date		2012/10/25 08:30		
COC Number		365482-45-01		
	Units	**E-W-1P**	**RDL**	**QC Batch**
Inorganics				
Moisture	%	22	1.0	3016461

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2G6829
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ0189	PJ0190		PJ0191		
Sampling Date			2012/10/25 08:30	2012/10/25 08:30		2012/10/25 08:30		
COC Number			365482-45-01	365482-45-01		365482-45-01		
	Units	**Criteria**	**E-W-1**	**E-W-2**	**QC Batch**	**E-W-3**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	-	0.49	0.48	3017840	0.74	0.050	3017840
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.65	0.30	3017990	0.57	0.20	3017854
Acid Extractable Arsenic (As)	ug/g	**18**	**40**	**26**	3017990	**54**	1.0	3017854
Acid Extractable Barium (Ba)	ug/g	**220**	52	32	3017990	47	0.50	3017854
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.38	0.28	3017990	0.36	0.20	3017854
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	3017990	<5.0	5.0	3017854
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.19	<0.10	3017990	0.17	0.10	3017854
Acid Extractable Chromium (Cr)	ug/g	**70**	13	10	3017990	13	1.0	3017854
Acid Extractable Cobalt (Co)	ug/g	**21**	4.8	3.6	3017990	4.8	0.10	3017854
Acid Extractable Copper (Cu)	ug/g	**92**	24	13	3017990	22	0.50	3017854
Acid Extractable Lead (Pb)	ug/g	**120**	120	90	3017990	**150**	1.0	3017854
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	0.54	3017990	<0.50	0.50	3017854
Acid Extractable Nickel (Ni)	ug/g	**82**	7.9	6.1	3017990	7.5	0.50	3017854
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	3017990	0.63	0.50	3017854
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	3017990	<0.20	0.20	3017854
Acid Extractable Thallium (Tl)	ug/g	**1**	0.096	0.073	3017990	0.087	0.050	3017854
Acid Extractable Uranium (U)	ug/g	**2.5**	0.42	0.28	3017990	0.37	0.050	3017854
Acid Extractable Vanadium (V)	ug/g	**86**	26	22	3017990	22	5.0	3017854
Acid Extractable Zinc (Zn)	ug/g	**290**	34	29	3017990	34	5.0	3017854

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2G6829
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ0193		PJ0194		
Sampling Date			2012/10/25 08:30		2012/10/25 09:00		
COC Number			365482-45-01		365482-45-01		
	Units	**Criteria**	**E-W-FD**	**QC Batch**	**E-FL-1**	**RDL**	**QC Batch**
Metals							
Hot Water Ext. Boron (B)	ug/g	**-**	0.25	3017840	0.15	0.050	3017840
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.28	3017990	<0.20	0.20	3017854
Acid Extractable Arsenic (As)	ug/g	**18**	**22**	3017990	2.8	1.0	3017854
Acid Extractable Barium (Ba)	ug/g	**220**	33	3017990	37	0.50	3017854
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.30	3017990	0.31	0.20	3017854
Acid Extractable Boron (B)	ug/g	**36**	<5.0	3017990	<5.0	5.0	3017854
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.13	3017990	<0.10	0.10	3017854
Acid Extractable Chromium (Cr)	ug/g	**70**	9.9	3017990	11	1.0	3017854
Acid Extractable Cobalt (Co)	ug/g	**21**	3.8	3017990	4.1	0.10	3017854
Acid Extractable Copper (Cu)	ug/g	**92**	12	3017990	6.0	0.50	3017854
Acid Extractable Lead (Pb)	ug/g	**120**	66	3017990	10	1.0	3017854
Acid Extractable Molybdenum (Mo)	ug/g	**2**	0.56	3017990	<0.50	0.50	3017854
Acid Extractable Nickel (Ni)	ug/g	**82**	6.1	3017990	6.6	0.50	3017854
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	3017990	0.52	0.50	3017854
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	3017990	<0.20	0.20	3017854
Acid Extractable Thallium (Tl)	ug/g	**1**	0.067	3017990	0.054	0.050	3017854
Acid Extractable Uranium (U)	ug/g	**2.5**	0.28	3017990	0.25	0.050	3017854
Acid Extractable Vanadium (V)	ug/g	**86**	22	3017990	20	5.0	3017854
Acid Extractable Zinc (Zn)	ug/g	**290**	28	3017990	25	5.0	3017854

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G6829
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS
Sampler Initials: RW

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ0192		
Sampling Date			2012/10/25 08:30		
COC Number			365482-45-01		
	Units	**Criteria**	**E-W-1P**	**RDL**	**QC Batch**
Pesticides & Herbicides					
Aldrin	ug/g	**0.05**	<0.0020	0.0020	3015903
a-Chlordane	ug/g	**0.05**	<0.0020	0.0020	3015903
g-Chlordane	ug/g	**0.05**	<0.0020	0.0020	3015903
Chlordane (Total)	ug/g	**0.05**	<0.0020	0.0020	3015903
o,p-DDD	ug/g	**0.05**	<0.0020	0.0020	3015903
p,p-DDD	ug/g	**0.05**	<0.0020	0.0020	3015903
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0020	0.0020	3015903
o,p-DDE	ug/g	**0.05**	<0.0020	0.0020	3015903
p,p-DDE	ug/g	**0.05**	<0.0020	0.0020	3015903
o,p-DDE + p,p-DDE	ug/g	**-**	<0.0020	0.0020	3015903
o,p-DDT	ug/g	**1.4**	<0.0020	0.0020	3015903
p,p-DDT	ug/g	**1.4**	<0.0020	0.0020	3015903
o,p-DDT + p,p-DDT	ug/g	**-**	<0.0020	0.0020	3015903
Dieldrin	ug/g	**0.05**	<0.0020	0.0020	3015903
Lindane	ug/g	**0.01**	<0.0020	0.0020	3015903
Endosulfan I (alpha)	ug/g	**0.04**	<0.0020	0.0020	3015903
Endosulfan II	ug/g	**0.04**	<0.0020	0.0020	3015903
Total Endosulfan	ug/g	**-**	<0.0020	0.0020	3015903
Endrin	ug/g	**0.04**	<0.0020	0.0020	3015903
Heptachlor	ug/g	**0.05**	<0.0020	0.0020	3015903
Heptachlor epoxide	ug/g	**0.05**	<0.0020	0.0020	3015903
Hexachlorobenzene	ug/g	**0.01**	<0.0020	0.0020	3015903
Hexachlorobutadiene	ug/g	**0.01**	<0.0050	0.0050	3015903
Hexachloroethane	ug/g	**0.01**	<0.0050	0.0050	3015903
Methoxychlor	ug/g	**0.05**	<0.0050	0.0050	3015903
Aroclor 1242	ug/g	**-**	<0.015	0.015	3015903
Aroclor 1248	ug/g	**-**	<0.015	0.015	3015903
Aroclor 1254	ug/g	**-**	<0.015	0.015	3015903
Aroclor 1260	ug/g	**-**	<0.015	0.015	3015903

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B2G6829
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS
Sampler Initials: RW

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ0192		
Sampling Date			2012/10/25 08:30		
COC Number			365482-45-01		
	Units	**Criteria**	**E-W-1P**	**RDL**	**QC Batch**
Total PCB	ug/g	**0.3**	<0.015	0.015	3015903
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	-	81		3015903
Decachlorobiphenyl	%	-	68		3015903

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G6829
Report Date: 2012/10/30

MMM Group Limited
Client Project #: 1005015-018-CAI
Site Location: SUMMERHILL WOODS
Sampler Initials: RW

Package 1	4.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CAI
P.O. #:
Site Location: SUMMERHILL WOODS

Quality Assurance Report

Maxxam Job Number: MB2G6829

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3015903	MAK	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2012/10/29		91	%	50 - 130
			Decachlorobiphenyl	2012/10/29		84	%	50 - 130
			Aldrin	2012/10/29		92	%	50 - 130
			a-Chlordane	2012/10/29		90	%	50 - 130
			g-Chlordane	2012/10/29		92	%	50 - 130
			o,p-DDD	2012/10/29		92	%	50 - 130
			p,p-DDD	2012/10/29		92	%	50 - 130
			o,p-DDE	2012/10/29		92	%	50 - 130
			p,p-DDE	2012/10/29		90	%	50 - 130
			o,p-DDT	2012/10/29		104	%	50 - 130
			p,p-DDT	2012/10/29		75	%	50 - 130
			Dieldrin	2012/10/29		89	%	50 - 130
			Lindane	2012/10/29		87	%	50 - 130
			Endosulfan I (alpha)	2012/10/29		73	%	50 - 130
			Endosulfan II	2012/10/29		120	%	50 - 130
			Endrin	2012/10/29		99	%	50 - 130
			Heptachlor	2012/10/29		96	%	50 - 130
			Heptachlor epoxide	2012/10/29		85	%	50 - 130
			Hexachlorobenzene	2012/10/29		89	%	50 - 130
			Hexachlorobutadiene	2012/10/29		78	%	50 - 130
			Hexachloroethane	2012/10/29		76	%	50 - 130
			Methoxychlor	2012/10/29		86	%	50 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/29		93	%	50 - 130
			Decachlorobiphenyl	2012/10/29		74	%	50 - 130
			Aldrin	2012/10/29		89	%	50 - 130
			a-Chlordane	2012/10/29		82	%	50 - 130
			g-Chlordane	2012/10/29		69	%	50 - 130
			o,p-DDD	2012/10/29		66	%	50 - 130
			p,p-DDD	2012/10/29		67	%	50 - 130
			o,p-DDE	2012/10/29		92	%	50 - 130
			p,p-DDE	2012/10/29		86	%	50 - 130
			o,p-DDT	2012/10/29		98	%	50 - 130
			p,p-DDT	2012/10/29		86	%	50 - 130
			Dieldrin	2012/10/29		67	%	50 - 130
			Lindane	2012/10/29		66	%	50 - 130
			Endosulfan I (alpha)	2012/10/29		55	%	50 - 130
			Endosulfan II	2012/10/29		57	%	50 - 130
			Endrin	2012/10/29		71	%	50 - 130
			Heptachlor	2012/10/29		96	%	50 - 130
			Heptachlor epoxide	2012/10/29		66	%	50 - 130
			Hexachlorobenzene	2012/10/29		82	%	50 - 130
			Hexachlorobutadiene	2012/10/29		92	%	50 - 130
			Hexachloroethane	2012/10/29		98	%	50 - 130
			Methoxychlor	2012/10/29		72	%	50 - 130
		RPD	Aroclor 1242	2012/10/29	NC		%	40
			Total PCB	2012/10/29	NC		%	40
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/29		88	%	50 - 130
			Decachlorobiphenyl	2012/10/29		73	%	50 - 130
			Aldrin	2012/10/29	<0.0020		ug/g	
			a-Chlordane	2012/10/29	<0.0020		ug/g	
			g-Chlordane	2012/10/29	<0.0020		ug/g	
			Chlordane (Total)	2012/10/29	<0.0020		ug/g	
			o,p-DDD	2012/10/29	<0.0020		ug/g	
			p,p-DDD	2012/10/29	<0.0020		ug/g	
			o,p-DDD + p,p-DDD	2012/10/29	<0.0020		ug/g	

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MMM Group Limited
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Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6829

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3015903	MAK	Method Blank	o,p-DDE	2012/10/29	<0.0020		ug/g	
			p,p-DDE	2012/10/29	<0.0020		ug/g	
			o,p-DDE + p,p-DDE	2012/10/29	<0.0020		ug/g	
			o,p-DDT	2012/10/29	<0.0020		ug/g	
			p,p-DDT	2012/10/29	<0.0020		ug/g	
			o,p-DDT + p,p-DDT	2012/10/29	<0.0020		ug/g	
			Dieldrin	2012/10/29	<0.0020		ug/g	
			Lindane	2012/10/29	<0.0020		ug/g	
			Endosulfan I (alpha)	2012/10/29	<0.0020		ug/g	
			Endosulfan II	2012/10/29	<0.0020		ug/g	
			Total Endosulfan	2012/10/29	<0.0020		ug/g	
			Endrin	2012/10/29	<0.0020		ug/g	
			Heptachlor	2012/10/29	<0.0020		ug/g	
			Heptachlor epoxide	2012/10/29	<0.0020		ug/g	
			Hexachlorobenzene	2012/10/29	<0.0020		ug/g	
			Hexachlorobutadiene	2012/10/29	<0.0050		ug/g	
			Hexachloroethane	2012/10/29	<0.0050		ug/g	
			Methoxychlor	2012/10/29	<0.0050		ug/g	
			Aroclor 1242	2012/10/29	<0.015		ug/g	
			Aroclor 1248	2012/10/29	<0.015		ug/g	
			Aroclor 1254	2012/10/29	<0.015		ug/g	
			Aroclor 1260	2012/10/29	<0.015		ug/g	
			Total PCB	2012/10/29	<0.015		ug/g	
		RPD	Aldrin	2012/10/29	NC		%	40
			a-Chlordane	2012/10/29	NC		%	40
			g-Chlordane	2012/10/29	NC		%	40
			Chlordane (Total)	2012/10/29	NC		%	40
			o,p-DDD	2012/10/29	NC		%	40
			p,p-DDD	2012/10/29	NC		%	40
			o,p-DDD + p,p-DDD	2012/10/29	NC		%	40
			o,p-DDE	2012/10/29	NC		%	40
			p,p-DDE	2012/10/29	NC		%	40
			o,p-DDE + p,p-DDE	2012/10/29	NC		%	40
			o,p-DDT	2012/10/29	NC		%	40
			p,p-DDT	2012/10/29	NC		%	40
			o,p-DDT + p,p-DDT	2012/10/29	NC		%	40
			Dieldrin	2012/10/29	NC		%	40
			Lindane	2012/10/29	NC		%	40
			Endosulfan I (alpha)	2012/10/29	NC		%	40
			Endosulfan II	2012/10/29	NC		%	40
			Total Endosulfan	2012/10/29	NC		%	40
			Endrin	2012/10/29	NC		%	40
			Heptachlor	2012/10/29	NC		%	40
			Heptachlor epoxide	2012/10/29	NC		%	40
			Hexachlorobenzene	2012/10/29	NC		%	40
			Hexachlorobutadiene	2012/10/29	NC		%	40
			Hexachloroethane	2012/10/29	NC		%	40
			Methoxychlor	2012/10/29	NC		%	40
			Aroclor 1248	2012/10/29	NC		%	40
			Aroclor 1254	2012/10/29	NC		%	40
			Aroclor 1260	2012/10/29	NC		%	40
3016461	THT	RPD	Moisture	2012/10/26	0.5		%	20
3017840	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/10/29		95	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/10/29	<0.050		ug/g	
3017854	JBW	Matrix Spike	Acid Extractable Antimony (Sb)	2012/10/29		109	%	75 - 125

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Client Project #: 1005015-018-CAI
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Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6829

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017854	JBW	Matrix Spike	Acid Extractable Arsenic (As)	2012/10/29		109	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/29		105	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/29		108	%	75 - 125
			Acid Extractable Boron (B)	2012/10/29		101	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/29		108	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/29		105	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/29		104	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/29		99	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/29		103	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/29		109	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/29		103	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/29		105	%	75 - 125
			Acid Extractable Silver (Ag)	2012/10/29		104	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/29		96	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/29		105	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/29		106	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/29		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/29		106	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/29		106	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/29		105	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/29		105	%	80 - 120
			Acid Extractable Boron (B)	2012/10/29		101	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/29		106	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/29		103	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/29		103	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/29		102	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/29		104	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/29		103	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/29		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/29		102	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/29		104	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/10/29		95	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/29		104	%	80 - 120
			Acid Extractable Vanadium (V)	2012/10/29		102	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/10/29		109	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/29	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/29	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/29	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/10/29	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/29	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/29	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/29	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/29	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/29	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/29	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/29	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/29	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/29	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/29	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/29	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/29	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/10/29	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/10/29	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/10/29	NC		%	30
			Acid Extractable Arsenic (As)	2012/10/29	NC		%	30

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Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6829

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017854	JBW	RPD	Acid Extractable Barium (Ba)	2012/10/29	6.0		%	30
			Acid Extractable Beryllium (Be)	2012/10/29	NC		%	30
			Acid Extractable Boron (B)	2012/10/29	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/29	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/29	NC		%	30
			Acid Extractable Cobalt (Co)	2012/10/29	10.1		%	30
			Acid Extractable Copper (Cu)	2012/10/29	4.0		%	30
			Acid Extractable Lead (Pb)	2012/10/29	NC		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/29	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/29	1.9		%	30
			Acid Extractable Selenium (Se)	2012/10/29	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/29	NC		%	30
			Acid Extractable Thallium (Tl)	2012/10/29	NC		%	30
			Acid Extractable Uranium (U)	2012/10/29	NC		%	30
			Acid Extractable Vanadium (V)	2012/10/29	NC		%	30
			Acid Extractable Zinc (Zn)	2012/10/29	2.1		%	30
3017990	JBW	Matrix Spike	Acid Extractable Antimony (Sb)	2012/10/30		112	%	75 - 125
			Acid Extractable Arsenic (As)	2012/10/30		104	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/30		102	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/30		102	%	75 - 125
			Acid Extractable Boron (B)	2012/10/30		96	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/30		108	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/30		109	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/30		105	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/30		103	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/30		106	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/30		110	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/30		106	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/30		105	%	75 - 125
			Acid Extractable Silver (Ag)	2012/10/30		104	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/30		93	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/30		108	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/30		113	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/30		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/30		107	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/30		98	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/30		100	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/30		101	%	80 - 120
			Acid Extractable Boron (B)	2012/10/30		91	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/30		103	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/30		102	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/30		102	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/30		100	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/30		103	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/30		102	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/30		103	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/30		100	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/30		100	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/10/30		91	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/30		103	%	80 - 120
			Acid Extractable Vanadium (V)	2012/10/30		104	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/10/30		105	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/30	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/30	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/30	<0.50		ug/g	

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Quality Assurance Report (Continued)

Maxxam Job Number: MB2G6829

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017990	JBW	Method Blank	Acid Extractable Beryllium (Be)	2012/10/30	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/30	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/30	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/30	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/30	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/30	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/30	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/30	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/30	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/30	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/30	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/30	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/30	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/10/30	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/10/30	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/10/30	NC		%	30
			Acid Extractable Arsenic (As)	2012/10/30	NC		%	30
			Acid Extractable Barium (Ba)	2012/10/30	0.4		%	30
			Acid Extractable Beryllium (Be)	2012/10/30	NC		%	30
			Acid Extractable Boron (B)	2012/10/30	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/30	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/30	NC		%	30
			Acid Extractable Cobalt (Co)	2012/10/30	0.04		%	30
			Acid Extractable Copper (Cu)	2012/10/30	10.4		%	30
			Acid Extractable Lead (Pb)	2012/10/30	0.7		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/30	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/30	0.6		%	30
			Acid Extractable Selenium (Se)	2012/10/30	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/30	NC		%	30
			Acid Extractable Thallium (Tl)	2012/10/30	NC		%	30
			Acid Extractable Uranium (U)	2012/10/30	2.7		%	30
			Acid Extractable Vanadium (V)	2012/10/30	NC		%	30
			Acid Extractable Zinc (Zn)	2012/10/30	3.8		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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Validation Signature Page

Maxxam Job #: B2G6829

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Cristina Carriere, Scientific Services

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/ AREA E
Your C.O.C. #: C#365482, C#365482-42-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/10/31

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2G7806
Received: 2012/10/26, 14:53

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	2	2012/10/30	2012/10/31	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	2	2012/10/31	2012/10/31	CAM SOP-00447	EPA 6020
Moisture	3	N/A	2012/10/29	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	1	2012/10/29	2012/10/31	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B2G7806
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/ AREA E
Sampler Initials: RW

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PJ5008	PJ5009		PJ5010		
Sampling Date		2012/10/26 09:30	2012/10/26 09:30		2012/10/26 09:30		
COC Number		C#365482-42-01	C#365482-42-01		C#365482-42-01		
	Units	**E-FL-2**	**E-FL-3**	**QC Batch**	**E-FL-IP**	**RDL**	**QC Batch**
Inorganics							
Moisture	%	28	30	3017801	32	1.0	3017827

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2G7806
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/ AREA E
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PJ5008	PJ5009		
Sampling Date			2012/10/26 09:30	2012/10/26 09:30		
COC Number			C#365482-42-01	C#365482-42-01		
	Units	**Criteria**	**E-FL-2**	**E-FL-3**	**RDL**	**QC Batch**
Metals						
Hot Water Ext. Boron (B)	ug/g	**-**	0.32	0.46	0.050	3019967
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.46	0.49	0.20	3020456
Acid Extractable Arsenic (As)	ug/g	**18**	**31**	**35**	1.0	3020456
Acid Extractable Barium (Ba)	ug/g	**220**	50	43	0.50	3020456
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.37	0.34	0.20	3020456
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5.0	3020456
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.15	0.16	0.10	3020456
Acid Extractable Chromium (Cr)	ug/g	**70**	14	12	1.0	3020456
Acid Extractable Cobalt (Co)	ug/g	**21**	5.1	4.3	0.10	3020456
Acid Extractable Copper (Cu)	ug/g	**92**	17	17	0.50	3020456
Acid Extractable Lead (Pb)	ug/g	**120**	100	110	1.0	3020456
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	0.50	3020456
Acid Extractable Nickel (Ni)	ug/g	**82**	8.4	7.4	0.50	3020456
Acid Extractable Selenium (Se)	ug/g	**1.5**	0.55	0.65	0.50	3020456
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	0.20	3020456
Acid Extractable Thallium (Tl)	ug/g	**1**	0.081	0.076	0.050	3020456
Acid Extractable Uranium (U)	ug/g	**2.5**	0.41	0.35	0.050	3020456
Acid Extractable Vanadium (V)	ug/g	**86**	27	23	5.0	3020456
Acid Extractable Zinc (Zn)	ug/g	**290**	34	35	5.0	3020456
Acid Extractable Mercury (Hg)	ug/g	**0.27**	<0.050	<0.050	0.050	3020456

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7806
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/ AREA E
Sampler Initials: RW

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ5010		
Sampling Date			2012/10/26 09:30		
COC Number			C#365482-42-01		
	Units	**Criteria**	**E-FL-IP**	**RDL**	**QC Batch**
Pesticides & Herbicides					
Aldrin	ug/g	**0.05**	<0.0030	0.0030	3017515
a-Chlordane	ug/g	**0.05**	<0.0030	0.0030	3017515
g-Chlordane	ug/g	**0.05**	<0.0030	0.0030	3017515
Chlordane (Total)	ug/g	**0.05**	<0.0030	0.0030	3017515
o,p-DDD	ug/g	**0.05**	<0.0030	0.0030	3017515
p,p-DDD	ug/g	**0.05**	<0.0030	0.0030	3017515
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0030	0.0030	3017515
o,p-DDE	ug/g	**0.05**	<0.0030	0.0030	3017515
p,p-DDE	ug/g	**0.05**	<0.0030	0.0030	3017515
o,p-DDE + p,p-DDE	ug/g	**-**	<0.0030	0.0030	3017515
o,p-DDT	ug/g	**1.4**	<0.0030	0.0030	3017515
p,p-DDT	ug/g	**1.4**	<0.0030	0.0030	3017515
o,p-DDT + p,p-DDT	ug/g	**-**	<0.0030	0.0030	3017515
Dieldrin	ug/g	**0.05**	<0.0030	0.0030	3017515
Lindane	ug/g	**0.01**	<0.0030	0.0030	3017515
Endosulfan I (alpha)	ug/g	**0.04**	<0.0030	0.0030	3017515
Endosulfan II	ug/g	**0.04**	<0.0030	0.0030	3017515
Total Endosulfan	ug/g	**-**	<0.0030	0.0030	3017515
Endrin	ug/g	**0.04**	<0.0030	0.0030	3017515
Heptachlor	ug/g	**0.05**	<0.0030	0.0030	3017515
Heptachlor epoxide	ug/g	**0.05**	<0.0030	0.0030	3017515
Hexachlorobenzene	ug/g	**0.01**	<0.0030	0.0030	3017515
Hexachlorobutadiene	ug/g	**0.01**	<0.0075	0.0075	3017515
Hexachloroethane	ug/g	**0.01**	<0.0075	0.0075	3017515
Methoxychlor	ug/g	**0.05**	<0.0075	0.0075	3017515
Aroclor 1242	ug/g	**-**	<0.023	0.023	3017515
Aroclor 1248	ug/g	**-**	<0.023	0.023	3017515
Aroclor 1254	ug/g	**-**	<0.023	0.023	3017515
Aroclor 1260	ug/g	**-**	<0.023	0.023	3017515

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7806
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/ AREA E
Sampler Initials: RW

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PJ5010		
Sampling Date			2012/10/26 09:30		
COC Number			C#365482-42-01		
	Units	**Criteria**	**E-FL-IP**	**RDL**	**QC Batch**
Total PCB	ug/g	**0.3**	<0.023	0.023	3017515
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	-	84		3017515
Decachlorobiphenyl	%	-	92		3017515

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2G7806
Report Date: 2012/10/31

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: SUMMERHILL WOODS/ AREA E
Sampler Initials: RW

Package 1	2.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Sample PJ5010-01: OC Pesticide Analysis: Detection limits were raised for high moisture content.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/ AREA E

Quality Assurance Report

Maxxam Job Number: MB2G7806

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017515	NZ1	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		95	%	50 - 130
			Decachlorobiphenyl	2012/10/31		101	%	50 - 130
			Aldrin	2012/10/31		98	%	50 - 130
			a-Chlordane	2012/10/31		107	%	50 - 130
			g-Chlordane	2012/10/31		105	%	50 - 130
			o,p-DDD	2012/10/31		98	%	50 - 130
			p,p-DDD	2012/10/31		113	%	50 - 130
			o,p-DDE	2012/10/31		104	%	50 - 130
			p,p-DDE	2012/10/31		NC (1)	%	50 - 130
			o,p-DDT	2012/10/31		108	%	50 - 130
			p,p-DDT	2012/10/31		NC (1)	%	50 - 130
			Dieldrin	2012/10/31		99	%	50 - 130
			Lindane	2012/10/31		91	%	50 - 130
			Endosulfan I (alpha)	2012/10/31		80	%	50 - 130
			Endosulfan II	2012/10/31		97	%	50 - 130
			Endrin	2012/10/31		104	%	50 - 130
			Heptachlor	2012/10/31		100	%	50 - 130
			Heptachlor epoxide	2012/10/31		81	%	50 - 130
			Hexachlorobenzene	2012/10/31		90	%	50 - 130
			Hexachlorobutadiene	2012/10/31		83	%	50 - 130
			Hexachloroethane	2012/10/31		75	%	50 - 130
			Methoxychlor	2012/10/31		108	%	50 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		95	%	50 - 130
			Decachlorobiphenyl	2012/10/31		105	%	50 - 130
			Aldrin	2012/10/31		102	%	50 - 130
			a-Chlordane	2012/10/31		101	%	50 - 130
			g-Chlordane	2012/10/31		91	%	50 - 130
			o,p-DDD	2012/10/31		88	%	50 - 130
			p,p-DDD	2012/10/31		95	%	50 - 130
			o,p-DDE	2012/10/31		94	%	50 - 130
			p,p-DDE	2012/10/31		102	%	50 - 130
			o,p-DDT	2012/10/31		97	%	50 - 130
			p,p-DDT	2012/10/31		99	%	50 - 130
			Dieldrin	2012/10/31		91	%	50 - 130
			Lindane	2012/10/31		87	%	50 - 130
			Endosulfan I (alpha)	2012/10/31		74	%	50 - 130
			Endosulfan II	2012/10/31		78	%	50 - 130
			Endrin	2012/10/31		91	%	50 - 130
			Heptachlor	2012/10/31		96	%	50 - 130
			Heptachlor epoxide	2012/10/31		82	%	50 - 130
			Hexachlorobenzene	2012/10/31		89	%	50 - 130
			Hexachlorobutadiene	2012/10/31		93	%	50 - 130
			Hexachloroethane	2012/10/31		91	%	50 - 130
			Methoxychlor	2012/10/31		87	%	50 - 130
		RPD	Aroclor 1242	2012/10/31	NC		%	40
			Total PCB	2012/10/31	NC		%	40
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/10/31		88	%	50 - 130
			Decachlorobiphenyl	2012/10/31		97	%	50 - 130
			Aldrin	2012/10/31	<0.0020		ug/g	
			a-Chlordane	2012/10/31	<0.0020		ug/g	
			g-Chlordane	2012/10/31	<0.0020		ug/g	
			Chlordane (Total)	2012/10/31	<0.0020		ug/g	
			o,p-DDD	2012/10/31	<0.0020		ug/g	
			p,p-DDD	2012/10/31	<0.0020		ug/g	
			o,p-DDD + p,p-DDD	2012/10/31	<0.0020		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/ AREA E

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7806

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3017515	NZ1	Method Blank	o,p-DDE	2012/10/31	<0.0020		ug/g	
			p,p-DDE	2012/10/31	<0.0020		ug/g	
			o,p-DDE + p,p-DDE	2012/10/31	<0.0020		ug/g	
			o,p-DDT	2012/10/31	<0.0020		ug/g	
			p,p-DDT	2012/10/31	<0.0020		ug/g	
			o,p-DDT + p,p-DDT	2012/10/31	<0.0020		ug/g	
			Dieldrin	2012/10/31	<0.0020		ug/g	
			Lindane	2012/10/31	<0.0020		ug/g	
			Endosulfan I (alpha)	2012/10/31	<0.0020		ug/g	
			Endosulfan II	2012/10/31	<0.0020		ug/g	
			Total Endosulfan	2012/10/31	<0.0020		ug/g	
			Endrin	2012/10/31	<0.0020		ug/g	
			Heptachlor	2012/10/31	<0.0020		ug/g	
			Heptachlor epoxide	2012/10/31	<0.0020		ug/g	
			Hexachlorobenzene	2012/10/31	<0.0020		ug/g	
			Hexachlorobutadiene	2012/10/31	<0.0050		ug/g	
			Hexachloroethane	2012/10/31	<0.0050		ug/g	
			Methoxychlor	2012/10/31	<0.0050		ug/g	
			Aroclor 1242	2012/10/31	<0.015		ug/g	
			Aroclor 1248	2012/10/31	<0.015		ug/g	
			Aroclor 1254	2012/10/31	<0.015		ug/g	
			Aroclor 1260	2012/10/31	<0.015		ug/g	
			Total PCB	2012/10/31	<0.015		ug/g	
		RPD	Aldrin	2012/10/31	NC		%	40
			a-Chlordane	2012/10/31	NC		%	40
			g-Chlordane	2012/10/31	NC		%	40
			Chlordane (Total)	2012/10/31	NC		%	40
			o,p-DDD	2012/10/31	NC		%	40
			p,p-DDD	2012/10/31	NC		%	40
			o,p-DDD + p,p-DDD	2012/10/31	NC		%	40
			o,p-DDE	2012/10/31	NC		%	40
			p,p-DDE	2012/10/31	8.7 (2)		%	40
			o,p-DDE + p,p-DDE	2012/10/31	8.7 (2)		%	40
			o,p-DDT	2012/10/31	NC		%	40
			p,p-DDT	2012/10/31	0		%	40
			o,p-DDT + p,p-DDT	2012/10/31	0		%	40
			Dieldrin	2012/10/31	NC		%	40
			Lindane	2012/10/31	NC		%	40
			Endosulfan I (alpha)	2012/10/31	NC		%	40
			Endosulfan II	2012/10/31	NC		%	40
			Total Endosulfan	2012/10/31	NC		%	40
			Endrin	2012/10/31	NC		%	40
			Heptachlor	2012/10/31	NC		%	40
			Heptachlor epoxide	2012/10/31	NC		%	40
			Hexachlorobenzene	2012/10/31	NC		%	40
			Hexachlorobutadiene	2012/10/31	NC		%	40
			Hexachloroethane	2012/10/31	NC		%	40
			Methoxychlor	2012/10/31	NC		%	40
			Aroclor 1248	2012/10/31	NC		%	40
			Aroclor 1254	2012/10/31	NC		%	40
			Aroclor 1260	2012/10/31	NC		%	40
3017801	MYG	RPD	Moisture	2012/10/29	0.4		%	20
3017827	JL2	RPD	Moisture	2012/10/29	2.0		%	20
3019967	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/10/30		93	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/10/30	<0.050		ug/g	

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MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/ AREA E

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7806

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3019967	AFZ	RPD	Hot Water Ext. Boron (B)	2012/10/30	NC		%	35
3020456	HRE	Matrix Spike	Acid Extractable Antimony (Sb)	2012/10/31		102	%	75 - 125
			Acid Extractable Arsenic (As)	2012/10/31		NC	%	75 - 125
			Acid Extractable Barium (Ba)	2012/10/31		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/10/31		98	%	75 - 125
			Acid Extractable Boron (B)	2012/10/31		87	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/10/31		103	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/10/31		103	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/10/31		103	%	75 - 125
			Acid Extractable Copper (Cu)	2012/10/31		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/10/31		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/10/31		103	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/10/31		104	%	75 - 125
			Acid Extractable Selenium (Se)	2012/10/31		100	%	75 - 125
			Acid Extractable Silver (Ag)	2012/10/31		101	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/10/31		94	%	75 - 125
			Acid Extractable Uranium (U)	2012/10/31		106	%	75 - 125
			Acid Extractable Vanadium (V)	2012/10/31		103	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/10/31		104	%	75 - 125
			Acid Extractable Mercury (Hg)	2012/10/31		110	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/10/31		99	%	80 - 120
			Acid Extractable Arsenic (As)	2012/10/31		100	%	80 - 120
			Acid Extractable Barium (Ba)	2012/10/31		97	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/10/31		97	%	80 - 120
			Acid Extractable Boron (B)	2012/10/31		90	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/10/31		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/10/31		102	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/10/31		102	%	80 - 120
			Acid Extractable Copper (Cu)	2012/10/31		96	%	80 - 120
			Acid Extractable Lead (Pb)	2012/10/31		102	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/10/31		100	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/10/31		102	%	80 - 120
			Acid Extractable Selenium (Se)	2012/10/31		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/10/31		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/10/31		91	%	80 - 120
			Acid Extractable Uranium (U)	2012/10/31		105	%	80 - 120
			Acid Extractable Vanadium (V)	2012/10/31		105	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/10/31		100	%	80 - 120
			Acid Extractable Mercury (Hg)	2012/10/31		100	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/10/31	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/10/31	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/10/31	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/10/31	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/10/31	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/10/31	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/10/31	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/10/31	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/10/31	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/10/31	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/10/31	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/10/31	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/10/31	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/10/31	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/10/31	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/10/31	<0.050		ug/g	

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/ AREA E

Quality Assurance Report (Continued)

Maxxam Job Number: MB2G7806

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3020456	HRE	Method Blank	Acid Extractable Vanadium (V)	2012/10/31	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/10/31	<5.0		ug/g	
			Acid Extractable Mercury (Hg)	2012/10/31	<0.050		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/10/31	1.1		%	30
			Acid Extractable Arsenic (As)	2012/10/31	5.7		%	30
			Acid Extractable Barium (Ba)	2012/10/31	1.9		%	30
			Acid Extractable Beryllium (Be)	2012/10/31	NC		%	30
			Acid Extractable Boron (B)	2012/10/31	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/10/31	NC		%	30
			Acid Extractable Chromium (Cr)	2012/10/31	4.3		%	30
			Acid Extractable Cobalt (Co)	2012/10/31	2.9		%	30
			Acid Extractable Copper (Cu)	2012/10/31	4.9		%	30
			Acid Extractable Lead (Pb)	2012/10/31	4.2		%	30
			Acid Extractable Molybdenum (Mo)	2012/10/31	NC		%	30
			Acid Extractable Nickel (Ni)	2012/10/31	2.5		%	30
			Acid Extractable Selenium (Se)	2012/10/31	NC		%	30
			Acid Extractable Silver (Ag)	2012/10/31	NC		%	30
			Acid Extractable Thallium (Tl)	2012/10/31	NC		%	30
			Acid Extractable Uranium (U)	2012/10/31	2.0		%	30
			Acid Extractable Vanadium (V)	2012/10/31	NC		%	30
			Acid Extractable Zinc (Zn)	2012/10/31	NC		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) The recovery in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.
(2) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

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Validation Signature Page

Maxxam Job #: B2G7806

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: 1005015018-CA1
Site Location: SUMMERHILL WOODS/AREA F CONF. SAMPLES
Your C.O.C. #: 37849103, 378491-03-01

Attention: Rebecca Wheater
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2012/11/08

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2H3148
Received: 2012/11/05, 14:40

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	4	2012/11/06	2012/11/06	CAM SOP-00408	R153 Ana. Prot. 2011
Acid Extr. Metals (aqua regia) by ICPMS	4	2012/11/06	2012/11/06	CAM SOP-00447	EPA 6020
Moisture	1	N/A	2012/11/05	CAM SOP-00445	R.Carter,1993
OC Pesticides (Selected) & PCB (1)	1	2012/11/06	2012/11/08	CAM SOP-00307	SW846 8081, 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B2H3148
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015018-CA1
Site Location: SUMMERHILL WOODS/AREA F CONF. SAMPLES
Sampler Initials: RW

RESULTS OF ANALYSES OF SOIL

Maxxam ID		PM2454		
Sampling Date		2012/11/05 12:30		
COC Number		378491-03-01		
	Units	**F-W-1P**	**RDL**	**QC Batch**
Inorganics				
Moisture	%	30	1.0	3026666

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2H3148
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015018-CA1
Site Location: SUMMERHILL WOODS/AREA F CONF. SAMPLES
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PM2452		PM2453	PM2455		
Sampling Date			2012/11/05 12:30		2012/11/05 12:30	2012/11/05 12:30		
COC Number			378491-03-01		378491-03-01	378491-03-01		
	Units	**Criteria**	**F-W-1**	**QC Batch**	**F-W-2**	**F-FL-1**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	**-**	0.51	3026917	0.66	0.25	0.050	3027013
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.59	3027110	0.56	<0.20	0.20	3027110
Acid Extractable Arsenic (As)	ug/g	**18**	**51**	3027110	**44**	7.2	1.0	3027110
Acid Extractable Barium (Ba)	ug/g	**220**	54	3027110	54	44	0.50	3027110
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.42	3027110	0.40	0.32	0.20	3027110
Acid Extractable Boron (B)	ug/g	**36**	<5.0	3027110	<5.0	<5.0	5.0	3027110
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.27	3027110	0.22	<0.10	0.10	3027110
Acid Extractable Chromium (Cr)	ug/g	**70**	15	3027110	14	12	1.0	3027110
Acid Extractable Cobalt (Co)	ug/g	**21**	4.9	3027110	4.8	4.1	0.10	3027110
Acid Extractable Copper (Cu)	ug/g	**92**	27	3027110	24	9.0	0.50	3027110
Acid Extractable Lead (Pb)	ug/g	**120**	**150**	3027110	**130**	18	1.0	3027110
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	3027110	<0.50	<0.50	0.50	3027110
Acid Extractable Nickel (Ni)	ug/g	**82**	8.1	3027110	7.8	7.7	0.50	3027110
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	3027110	<0.50	<0.50	0.50	3027110
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	3027110	<0.20	<0.20	0.20	3027110
Acid Extractable Thallium (Tl)	ug/g	**1**	0.092	3027110	0.078	0.059	0.050	3027110
Acid Extractable Uranium (U)	ug/g	**2.5**	0.44	3027110	0.43	0.31	0.050	3027110
Acid Extractable Vanadium (V)	ug/g	**86**	26	3027110	26	22	5.0	3027110
Acid Extractable Zinc (Zn)	ug/g	**290**	33	3027110	30	19	5.0	3027110

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2H3148
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015018-CA1
Site Location: SUMMERHILL WOODS/AREA F CONF. SAMPLES
Sampler Initials: RW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			PM2456		
Sampling Date			2012/11/05 12:30		
COC Number			378491-03-01		
	Units	**Criteria**	**F-FL-2**	**RDL**	**QC Batch**
Metals					
Hot Water Ext. Boron (B)	ug/g	-	0.71	0.050	3027013
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.45	0.20	3026940
Acid Extractable Arsenic (As)	ug/g	**18**	**40**	1.0	3026940
Acid Extractable Barium (Ba)	ug/g	**220**	49	0.50	3026940
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.38	0.20	3026940
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5.0	3026940
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.23	0.10	3026940
Acid Extractable Chromium (Cr)	ug/g	**70**	13	1.0	3026940
Acid Extractable Cobalt (Co)	ug/g	**21**	4.4	0.10	3026940
Acid Extractable Copper (Cu)	ug/g	**92**	22	0.50	3026940
Acid Extractable Lead (Pb)	ug/g	**120**	120	1.0	3026940
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	0.50	3026940
Acid Extractable Nickel (Ni)	ug/g	**82**	7.7	0.50	3026940
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	0.50	3026940
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	0.20	3026940
Acid Extractable Thallium (Tl)	ug/g	**1**	0.073	0.050	3026940
Acid Extractable Uranium (U)	ug/g	**2.5**	0.40	0.050	3026940
Acid Extractable Vanadium (V)	ug/g	**86**	24	5.0	3026940
Acid Extractable Zinc (Zn)	ug/g	**290**	27	5.0	3026940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H3148
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015018-CA1
Site Location: SUMMERHILL WOODS/AREA F CONF. SAMPLES
Sampler Initials: RW

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PM2454		
Sampling Date			2012/11/05 12:30		
COC Number			378491-03-01		
	Units	**Criteria**	**F-W-1P**	**RDL**	**QC Batch**
Pesticides & Herbicides					
Aldrin	ug/g	**0.05**	<0.0030	0.0030	3027596
a-Chlordane	ug/g	**0.05**	<0.0030	0.0030	3027596
g-Chlordane	ug/g	**0.05**	<0.0030	0.0030	3027596
Chlordane (Total)	ug/g	**0.05**	<0.0030	0.0030	3027596
o,p-DDD	ug/g	**0.05**	<0.0030	0.0030	3027596
p,p-DDD	ug/g	**0.05**	<0.0030	0.0030	3027596
o,p-DDD + p,p-DDD	ug/g	**-**	<0.0030	0.0030	3027596
o,p-DDE	ug/g	**0.05**	<0.0030	0.0030	3027596
p,p-DDE	ug/g	**0.05**	<0.0030	0.0030	3027596
o,p-DDE + p,p-DDE	ug/g	**-**	<0.0030	0.0030	3027596
o,p-DDT	ug/g	**1.4**	<0.0030	0.0030	3027596
p,p-DDT	ug/g	**1.4**	<0.0030	0.0030	3027596
o,p-DDT + p,p-DDT	ug/g	**-**	<0.0030	0.0030	3027596
Dieldrin	ug/g	**0.05**	<0.0030	0.0030	3027596
Lindane	ug/g	**0.01**	<0.0030	0.0030	3027596
Endosulfan I (alpha)	ug/g	**0.04**	<0.0030	0.0030	3027596
Endosulfan II	ug/g	**0.04**	<0.0030	0.0030	3027596
Total Endosulfan	ug/g	**-**	<0.0030	0.0030	3027596
Endrin	ug/g	**0.04**	<0.0030	0.0030	3027596
Heptachlor	ug/g	**0.05**	<0.0030	0.0030	3027596
Heptachlor epoxide	ug/g	**0.05**	<0.0030	0.0030	3027596
Hexachlorobenzene	ug/g	**0.01**	<0.0030	0.0030	3027596
Hexachlorobutadiene	ug/g	**0.01**	<0.0075	0.0075	3027596
Hexachloroethane	ug/g	**0.01**	<0.0075	0.0075	3027596
Methoxychlor	ug/g	**0.05**	<0.0075	0.0075	3027596
Aroclor 1242	ug/g	**-**	<0.023	0.023	3027596
Aroclor 1248	ug/g	**-**	<0.023	0.023	3027596
Aroclor 1254	ug/g	**-**	<0.023	0.023	3027596
Aroclor 1260	ug/g	**-**	<0.023	0.023	3027596

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H3148
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015018-CA1
Site Location: SUMMERHILL WOODS/AREA F CONF. SAMPLES
Sampler Initials: RW

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID			PM2454		
Sampling Date			2012/11/05 12:30		
COC Number			378491-03-01		
	Units	**Criteria**	**F-W-1P**	**RDL**	**QC Batch**
Total PCB	ug/g	**0.3**	<0.023	0.023	3027596
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	-	93		3027596
Decachlorobiphenyl	%	-	99		3027596

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B2H3148
Report Date: 2012/11/08

MMM Group Limited
Client Project #: 1005015018-CA1
Site Location: SUMMERHILL WOODS/AREA F CONF. SAMPLES
Sampler Initials: RW

Package 1	5.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Sample PM2454-01: OC Pesticide Analysis: Detection limits were adjusted for high moisture content.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Rebecca Wheater
Client Project #: 1005015018-CA1
P.O. #:
Site Location: SUMMERHILL WOODS/AREA F CONF. SAMPLES

Quality Assurance Report

Maxxam Job Number: MB2H3148

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3026666	THT	RPD	Moisture	2012/11/05	1.3		%	20
3026917	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/06		94	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/06	<0.050		ug/g	
3026940	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/06		90	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/06		NC	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/06		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/06		99	%	75 - 125
			Acid Extractable Boron (B)	2012/11/06		90	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/06		94	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/06		100	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/06		94	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/06		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/06		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/06		92	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/06		99	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/06		94	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/06		95	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/06		90	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/06		97	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/06		101	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/06		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/06		94	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/06		99	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/06		101	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/06		99	%	80 - 120
			Acid Extractable Boron (B)	2012/11/06		95	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/06		97	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/06		97	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/06		96	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/06		95	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/06		94	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/06		93	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/06		99	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/06		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/06		97	%	80 - 120
			Acid Extractable Thallium (Tl)	2012/11/06		92	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/06		100	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/06		97	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/06		96	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/06	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/06	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/06	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/06	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/06	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/06	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/06	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/06	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/06	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/06	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/06	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/06	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/06	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/06	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/06	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/06	<0.050		ug/g	

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MMM Group Limited
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Quality Assurance Report (Continued)

Maxxam Job Number: MB2H3148

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3026940	VIV	Method Blank	Acid Extractable Vanadium (V)	2012/11/06	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/06	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/06	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/06	2.9		%	30
			Acid Extractable Barium (Ba)	2012/11/06	0.3		%	30
			Acid Extractable Beryllium (Be)	2012/11/06	NC		%	30
			Acid Extractable Boron (B)	2012/11/06	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/06	NC		%	30
			Acid Extractable Chromium (Cr)	2012/11/06	2.9		%	30
			Acid Extractable Cobalt (Co)	2012/11/06	2.4		%	30
			Acid Extractable Copper (Cu)	2012/11/06	3.9		%	30
			Acid Extractable Lead (Pb)	2012/11/06	1.7		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/06	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/06	4.1		%	30
			Acid Extractable Selenium (Se)	2012/11/06	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/06	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/06	NC		%	30
			Acid Extractable Uranium (U)	2012/11/06	2.4		%	30
			Acid Extractable Vanadium (V)	2012/11/06	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/06	1.0		%	30
3027013	AFZ	Spiked Blank	Hot Water Ext. Boron (B)	2012/11/06		95	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2012/11/06	<0.050		ug/g	
		RPD	Hot Water Ext. Boron (B)	2012/11/06	NC		%	35
3027110	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2012/11/06		82	%	75 - 125
			Acid Extractable Arsenic (As)	2012/11/06		94	%	75 - 125
			Acid Extractable Barium (Ba)	2012/11/06		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2012/11/06		102	%	75 - 125
			Acid Extractable Boron (B)	2012/11/06		79	%	75 - 125
			Acid Extractable Cadmium (Cd)	2012/11/06		96	%	75 - 125
			Acid Extractable Chromium (Cr)	2012/11/06		95	%	75 - 125
			Acid Extractable Cobalt (Co)	2012/11/06		91	%	75 - 125
			Acid Extractable Copper (Cu)	2012/11/06		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2012/11/06		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2012/11/06		88	%	75 - 125
			Acid Extractable Nickel (Ni)	2012/11/06		NC	%	75 - 125
			Acid Extractable Selenium (Se)	2012/11/06		93	%	75 - 125
			Acid Extractable Silver (Ag)	2012/11/06		93	%	75 - 125
			Acid Extractable Thallium (Tl)	2012/11/06		72 (1)	%	75 - 125
			Acid Extractable Uranium (U)	2012/11/06		96	%	75 - 125
			Acid Extractable Vanadium (V)	2012/11/06		93	%	75 - 125
			Acid Extractable Zinc (Zn)	2012/11/06		NC	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2012/11/06		91	%	80 - 120
			Acid Extractable Arsenic (As)	2012/11/06		96	%	80 - 120
			Acid Extractable Barium (Ba)	2012/11/06		98	%	80 - 120
			Acid Extractable Beryllium (Be)	2012/11/06		101	%	80 - 120
			Acid Extractable Boron (B)	2012/11/06		100	%	80 - 120
			Acid Extractable Cadmium (Cd)	2012/11/06		95	%	80 - 120
			Acid Extractable Chromium (Cr)	2012/11/06		96	%	80 - 120
			Acid Extractable Cobalt (Co)	2012/11/06		93	%	80 - 120
			Acid Extractable Copper (Cu)	2012/11/06		92	%	80 - 120
			Acid Extractable Lead (Pb)	2012/11/06		92	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2012/11/06		91	%	80 - 120
			Acid Extractable Nickel (Ni)	2012/11/06		97	%	80 - 120
			Acid Extractable Selenium (Se)	2012/11/06		99	%	80 - 120
			Acid Extractable Silver (Ag)	2012/11/06		96	%	80 - 120

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Quality Assurance Report (Continued)

Maxxam Job Number: MB2H3148

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3027110	VIV	Spiked Blank	Acid Extractable Thallium (Tl)	2012/11/06		90	%	80 - 120
			Acid Extractable Uranium (U)	2012/11/06		96	%	80 - 120
			Acid Extractable Vanadium (V)	2012/11/06		93	%	80 - 120
			Acid Extractable Zinc (Zn)	2012/11/06		97	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2012/11/06	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2012/11/06	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2012/11/06	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2012/11/06	<0.20		ug/g	
			Acid Extractable Boron (B)	2012/11/06	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2012/11/06	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2012/11/06	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2012/11/06	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2012/11/06	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2012/11/06	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2012/11/06	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2012/11/06	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2012/11/06	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2012/11/06	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2012/11/06	<0.050		ug/g	
			Acid Extractable Uranium (U)	2012/11/06	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2012/11/06	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2012/11/06	<5.0		ug/g	
		RPD	Acid Extractable Antimony (Sb)	2012/11/06	NC		%	30
			Acid Extractable Arsenic (As)	2012/11/06	5.7		%	30
			Acid Extractable Barium (Ba)	2012/11/06	6.0		%	30
			Acid Extractable Beryllium (Be)	2012/11/06	NC		%	30
			Acid Extractable Boron (B)	2012/11/06	NC		%	30
			Acid Extractable Cadmium (Cd)	2012/11/06	6.7		%	30
			Acid Extractable Chromium (Cr)	2012/11/06	8.2		%	30
			Acid Extractable Cobalt (Co)	2012/11/06	4.1		%	30
			Acid Extractable Copper (Cu)	2012/11/06	5.4		%	30
			Acid Extractable Lead (Pb)	2012/11/06	3.3		%	30
			Acid Extractable Molybdenum (Mo)	2012/11/06	NC		%	30
			Acid Extractable Nickel (Ni)	2012/11/06	4.2		%	30
			Acid Extractable Selenium (Se)	2012/11/06	NC		%	30
			Acid Extractable Silver (Ag)	2012/11/06	NC		%	30
			Acid Extractable Thallium (Tl)	2012/11/06	NC		%	30
			Acid Extractable Uranium (U)	2012/11/06	7.7		%	30
			Acid Extractable Vanadium (V)	2012/11/06	NC		%	30
			Acid Extractable Zinc (Zn)	2012/11/06	4.4		%	30
3027596	MAK	Matrix Spike [PM2454-01]	2,4,5,6-Tetrachloro-m-xylene	2012/11/08		95	%	50 - 130
			Decachlorobiphenyl	2012/11/08		101	%	50 - 130
			Aldrin	2012/11/08		104	%	50 - 130
			a-Chlordane	2012/11/08		126	%	50 - 130
			g-Chlordane	2012/11/08		120	%	50 - 130
			o,p-DDD	2012/11/08		125	%	50 - 130
			p,p-DDD	2012/11/08		117	%	50 - 130
			o,p-DDE	2012/11/08		108	%	50 - 130
			p,p-DDE	2012/11/08		97	%	50 - 130
			o,p-DDT	2012/11/08		117	%	50 - 130
			p,p-DDT	2012/11/08		140 (2)	%	50 - 130
			Dieldrin	2012/11/08		116	%	50 - 130
			Lindane	2012/11/08		121	%	50 - 130
			Endosulfan I (alpha)	2012/11/08		113	%	50 - 130

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Quality Assurance Report (Continued)

Maxxam Job Number: MB2H3148

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3027596	MAK	Matrix Spike						
		[PM2454-01]	Endosulfan II	2012/11/08		116	%	50 - 130
			Endrin	2012/11/08		114	%	50 - 130
			Heptachlor	2012/11/08		100	%	50 - 130
			Heptachlor epoxide	2012/11/08		125	%	50 - 130
			Hexachlorobenzene	2012/11/08		106	%	50 - 130
			Hexachlorobutadiene	2012/11/08		78	%	50 - 130
			Hexachloroethane	2012/11/08		76	%	50 - 130
			Methoxychlor	2012/11/08		124	%	50 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2012/11/08		84	%	50 - 130
			Decachlorobiphenyl	2012/11/08		92	%	50 - 130
			Aldrin	2012/11/08		91	%	50 - 130
			a-Chlordane	2012/11/08		109	%	50 - 130
			g-Chlordane	2012/11/08		116	%	50 - 130
			o,p-DDD	2012/11/08		112	%	50 - 130
			p,p-DDD	2012/11/08		115	%	50 - 130
			o,p-DDE	2012/11/08		98	%	50 - 130
			p,p-DDE	2012/11/08		85	%	50 - 130
			o,p-DDT	2012/11/08		99	%	50 - 130
			p,p-DDT	2012/11/08		112	%	50 - 130
			Dieldrin	2012/11/08		115	%	50 - 130
			Lindane	2012/11/08		102	%	50 - 130
			Endosulfan I (alpha)	2012/11/08		95	%	50 - 130
			Endosulfan II	2012/11/08		106	%	50 - 130
			Endrin	2012/11/08		111	%	50 - 130
			Heptachlor	2012/11/08		92	%	50 - 130
			Heptachlor epoxide	2012/11/08		110	%	50 - 130
			Hexachlorobenzene	2012/11/08		80	%	50 - 130
			Hexachlorobutadiene	2012/11/08		80	%	50 - 130
			Hexachloroethane	2012/11/08		84	%	50 - 130
			Methoxychlor	2012/11/08		109	%	50 - 130
		RPD	Aroclor 1242	2012/11/08	NC		%	40
			Total PCB	2012/11/08	NC		%	40
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2012/11/08		89	%	50 - 130
			Decachlorobiphenyl	2012/11/08		91	%	50 - 130
			Aldrin	2012/11/08	<0.0020		ug/g	
			a-Chlordane	2012/11/08	<0.0020		ug/g	
			g-Chlordane	2012/11/08	<0.0020		ug/g	
			Chlordane (Total)	2012/11/08	<0.0020		ug/g	
			o,p-DDD	2012/11/08	<0.0020		ug/g	
			p,p-DDD	2012/11/08	<0.0020		ug/g	
			o,p-DDD + p,p-DDD	2012/11/08	<0.0020		ug/g	
			o,p-DDE	2012/11/08	<0.0020		ug/g	
			p,p-DDE	2012/11/08	<0.0020		ug/g	
			o,p-DDE + p,p-DDE	2012/11/08	<0.0020		ug/g	
			o,p-DDT	2012/11/08	<0.0020		ug/g	
			p,p-DDT	2012/11/08	<0.0020		ug/g	
			o,p-DDT + p,p-DDT	2012/11/08	<0.0020		ug/g	
			Dieldrin	2012/11/08	<0.0020		ug/g	
			Lindane	2012/11/08	<0.0020		ug/g	
			Endosulfan I (alpha)	2012/11/08	<0.0020		ug/g	
			Endosulfan II	2012/11/08	<0.0020		ug/g	
			Total Endosulfan	2012/11/08	<0.0020		ug/g	
			Endrin	2012/11/08	<0.0020		ug/g	
			Heptachlor	2012/11/08	<0.0020		ug/g	

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Quality Assurance Report (Continued)

Maxxam Job Number: MB2H3148

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3027596	MAK	Method Blank	Heptachlor epoxide	2012/11/08	<0.0020		ug/g	
			Hexachlorobenzene	2012/11/08	<0.0020		ug/g	
			Hexachlorobutadiene	2012/11/08	<0.0050		ug/g	
			Hexachloroethane	2012/11/08	<0.0050		ug/g	
			Methoxychlor	2012/11/08	<0.0050		ug/g	
			Aroclor 1242	2012/11/08	<0.015		ug/g	
			Aroclor 1248	2012/11/08	<0.015		ug/g	
			Aroclor 1254	2012/11/08	<0.015		ug/g	
			Aroclor 1260	2012/11/08	<0.015		ug/g	
			Total PCB	2012/11/08	<0.015		ug/g	
		RPD [PM2454-01]	Aldrin	2012/11/08	NC		%	40
			a-Chlordane	2012/11/08	NC		%	40
			g-Chlordane	2012/11/08	NC		%	40
			Chlordane (Total)	2012/11/08	NC		%	40
			o,p-DDD	2012/11/08	NC		%	40
			p,p-DDD	2012/11/08	NC		%	40
			o,p-DDD + p,p-DDD	2012/11/08	NC		%	40
			o,p-DDE	2012/11/08	NC		%	40
			p,p-DDE	2012/11/08	NC		%	40
			o,p-DDE + p,p-DDE	2012/11/08	NC		%	40
			o,p-DDT	2012/11/08	NC		%	40
			p,p-DDT	2012/11/08	NC		%	40
			o,p-DDT + p,p-DDT	2012/11/08	NC		%	40
			Dieldrin	2012/11/08	NC		%	40
			Lindane	2012/11/08	NC		%	40
			Endosulfan I (alpha)	2012/11/08	NC		%	40
			Endosulfan II	2012/11/08	NC		%	40
			Total Endosulfan	2012/11/08	NC		%	40
			Endrin	2012/11/08	NC		%	40
			Heptachlor	2012/11/08	NC		%	40
			Heptachlor epoxide	2012/11/08	NC		%	40
			Hexachlorobenzene	2012/11/08	NC		%	40
			Hexachlorobutadiene	2012/11/08	NC		%	40
			Hexachloroethane	2012/11/08	NC		%	40
			Methoxychlor	2012/11/08	NC		%	40
			Aroclor 1242	2012/11/08	NC		%	40
			Aroclor 1248	2012/11/08	NC		%	40
			Aroclor 1254	2012/11/08	NC		%	40
			Aroclor 1260	2012/11/08	NC		%	40
			Total PCB	2012/11/08	NC		%	40

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) The recovery was above the upper control limit. This may represent a high bias in some results for this specific analyte. For results that were not detected (ND), this potential bias has no impact.

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Validation Signature Page

Maxxam Job #: B2H3148

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Charles Ancker, B.Sc., M.Sc., C.Chem, Senior Analyst

Cristina Carriere, Scientific Services

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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UNIVERSITY of GUELPH
LABORATORY SERVICES

Soil and Nutrient Laboratory
95 Stone Road West
Guelph, Ontario N1H 8J7
(519) 823-1268 ext. 57215

Submission Number: 13-027860
Report date: April 17, 2013

HOME LAWN & GARDEN SOIL TEST REPORT

Sample No.	Plant type	SOIL TEST RESULTS							ANNUAL FERTILIZER REQUIREMENTS		
		Phosphorus mg/L P	Potassium mg/L K	Magnesium mg/L Mg	Soil pH	Electrical Conductivity mS/cm	Organic Matter % dry	Lime Requirements kg/100m²	**NITROGEN kg/100 m² (N)	PHOSPHATE kg/100 m² (P_2O_5)	POTASH kg/100 m² (K_2O)
0001	Lawn	5.8	96	130	7.7	0.185	3.6	not required	1.5	3.6	0.8
	Garden	5.8	96	130	7.7	0.185	3.6	not required	0.6	2.0	1.3

OMAFRA RECOMMENDATIONS

****Nitrogen**

This is not part of a regular soil test, since the interpretation of the results is only valid for a deeper sample taken at planting, nitrogen levels are based on general requirements.

Lawns: Nitrogen to be recommended by turf specialist: not more than 2 kg/100 m² in 4 applications if clippings are left on. Not more than 0.5 kg/100 m² per application except for the late fall application. The last application of the season should be made in late October to early November, after last growth has stopped but before freeze-up, at a rate not to exceed 1 kg/100 m².

Garden: Over-applying nitrogen to gardens can lead to increased vegetative growth at the expense of crop production, and increased incidence of disease.

Phosphorus and Potassium

Lawn: Above rates for phosphorus are total yearly applications. Not more than 0.9 kg/100 m² should be applied in any one application.

For an explanation of your results and fertilizer requirements please see page 2 of this report.
Explanations of electrical conductivity and organic matter are on page 3.

Interpreting your home lawn and garden Soil Test Report

Understanding your Report

The front (page 1) of your report shows the soil test results of your sample(s).
The shaded columns show your Annual Fertilizer Requirements based upon these soil test results.
These show the amount of fertilizer nutrients (and lime if applicable) required per $100m^2$, a typical garden size, for lawn and garden crops.
These requirements have been determined by fertilizer trials on Ontario farms.

Choosing a fertilizer

Mixed fertilizer is sold in different formulations according to the percentage by weight of Nitrogen (N), Phosphate(P_2O_5) and Potash (K_2O).
Fertilizer bags are labelled with three numbers to indicate these percentages (in order: N-P_2O_5-K_2O).
Due to the quantity of different formulations available, you will have to pick a fertilizer to suit your needs.
When choosing a fertilizer to apply consider the relative amounts of each nutrient you require under the shaded Fertilizer Requirements (page 1).
If the Phosphate requirement is higher than the Nitrogen and Potash, then the middle number in your fertilizer should be proportionately higher to reflect this.
If no numbers are indicated for Phosphate or Potash there is no need to apply these nutrients.

How much to apply

Once you have chosen your fertilizer, you must calculate how much to apply using the worksheet below.
Using the values given under the Annual Fertilizer Requirements (page 1), transfer the number from each coloured box to the corresponding coloured box below.
In the middle box put the percentage of nutrient in your fertilizer, for example 10 for 10% N.
Follow the calculation to give you the total amount of fertilizer to apply for the year.

	N requirement value ($kg/100m^2$)	x 100	Then divide by	% N in your chosen bag of fertilizer	=	kg fertilizer to apply per $100m^2$
	P (P_2O_5) requirement value ($kg/100m^2$)	x 100	Then divide by	% P in your chosen bag of fertilizer	=	kg fertilizer to apply per $100m^2$
	K (K_2O) requirement value ($kg/100m^2$)	x 100	Then divide by	% K in your chosen bag of fertilizer	=	kg fertilizer to apply per $100m^2$

If you have correctly matched the proportionate amounts when picking out your fertilizer, your quantity of fertilizer to apply for each nutrient should be close.
If there are differences in the numbers then apply the lowest amount.
Apply this total annual amount in 3 - 4 applications per growing season to avoid over applying Nitrogen and Phosphate.
Refer to the notes on the front of the report for a more detailed explanation.

Soil pH

This is a measure of your soil's acidity or alkalinity. pH values above 7.0 are alkaline and below 7.0 are acidic. A pH of 7.0 is neutral. In Ontario many crops grow well on soils with pH values from 6.0 to 8.0.

Soluble Salt

This is also known as electrical conductivity and reported as millisiemens per centimetre (mS/cm). Ontario soils are naturally low in soluble salts.
Soluble salts in soil can result from excessive applications of fertilizer and manures, and runoff of salts applied to roads. High concentrations of water soluble salts in soils can prevent or delay germination of seeds and can kill established plants or seriously retard their growth.

Table adapted from Soil Fertility Handbook (OMAFRA Pub. 611, 2006)

Conductivity (salt) reading mS/cm	Rating	Plant Response
0 to 0.25	low	Suitable for most plants if recommended amounts of fertilizer are used.
0.26 to 0.45	medium	Suitable for most plants if recommended amounts of fertilizer are used.
0.46 to 0.70	high	May reduce emergence and cause slight to severe damage to salt sensitive plants.
0.71 to 1.00	excessive	May prevent emergence and cause slight to severe damage to most plants.
>1.00	excessive	Expected to cause severe damage to most plants.

If your soil is has a high salt level watering may encourage some of the salt to leach out, alternatively you can replace the soil if it is cost effective.

Organic Matter

If your soil has less than 3% organic matter, then apply approximately 2.5 m^3 of an organic amendment such as sphagnum peat per 100 m^2.

For additional information on fertilizer recommendations see: http://www.omafra.gov.on.ca/english/crops/gardbk/8maint.htm

If further assistance is required, contact: **OMAFRA contact Centre 1-877-424-1300**
http://www.omafra.gov.on.ca/english/crops/soils/test-categories.htm

Your Project #: 1005015-018-CA1
Site Location: VICTORIA PARK AND MCNICHOL
Your C.O.C. #: 84158

Attention: Carolyn Adams
MMM Group Limited
100 Commerce Valley Dr W
Thornhill, ON
CANADA L3T 0A1

Report Date: 2013/04/10

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B352029
Received: 2013/04/09, 15:00

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	7	2013/04/10	2013/04/10	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	7	N/A	2013/04/10	CAM SOP-00457	Ontario MOE CN-E3015
Conductivity	7	N/A	2013/04/10	CAM SOP-00414	APHA 2510
Hexavalent Chromium in Soil by IC (1)	7	2013/04/10	2013/04/10	CAM SOP-00436	EPA SW846-3060/7199
Acid Extr. Metals (aqua regia) by ICPMS	7	2013/04/10	2013/04/10	CAM SOP-00447	EPA 6020
Moisture	7	N/A	2013/04/09	CAM SOP-00445	R.Carter,1993
pH CaCl2 EXTRACT	7	2013/04/10	2013/04/10	CAM SOP-00413	SM 4500H+ B
Sodium Adsorption Ratio (SAR)	7	2013/04/09	2013/04/10	CAM SOP-00102	EPA 6010

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jolanta Goralczyk, Project Manager
Email: JGoralczyk@maxxam.ca
Phone# (905) 817-5751

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B352029
Report Date: 2013/04/10

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: VICTORIA PARK AND MCNICHOL

RESULTS OF ANALYSES OF SOIL

Maxxam ID		RC4916	RC4917	RC4918	RC4919	RC4920	RC4921		
Sampling Date		2013/04/09	2013/04/09	2013/04/09	2013/04/09	2013/04/09	2013/04/09		
COC Number		84158	84158	84158	84158	84158	84158		
	Units	**GS-1**	**GS-2**	**GS-3**	**GS-4**	**GS-5**	**GS-6**	**RDL**	**QC Batch**
Calculated Parameters									
Sodium Adsorption Ratio	N/A	0.25	0.24	0.26	0.24	0.24	0.32		3175162
Inorganics									
Chromium (VI)	ug/g	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3176368
Conductivity	mS/cm	0.16	0.18	0.16	0.18	0.17	0.17	0.002	3176450
Free Cyanide	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3176182
Moisture	%	21	24	15	19	22	16	1.0	3176197
Available (CaCl2) pH	pH	7.25	7.28	7.46	7.49	7.42	7.52		3176393

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		RC4922		
Sampling Date		2013/04/09		
COC Number		84158		
	Units	**GS-FD**	**RDL**	**QC Batch**
Calculated Parameters				
Sodium Adsorption Ratio	N/A	0.23		3175162
Inorganics				
Chromium (VI)	ug/g	<0.2	0.2	3176368
Conductivity	mS/cm	0.19	0.002	3176450
Free Cyanide	ug/g	<0.01	0.01	3176182
Moisture	%	19	1.0	3176197
Available (CaCl2) pH	pH	7.38		3176393

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B352029
Report Date: 2013/04/10

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: VICTORIA PARK AND MCNICHOL

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		RC4916	RC4917	RC4918	RC4919	RC4920		
Sampling Date		2013/04/09	2013/04/09	2013/04/09	2013/04/09	2013/04/09		
COC Number		84158	84158	84158	84158	84158		
	Units	**GS-1**	**GS-2**	**GS-3**	**GS-4**	**GS-5**	**RDL**	**QC Batch**
Metals								
Hot Water Ext. Boron (B)	ug/g	0.16	0.20	0.13	0.17	0.21	0.050	3176409
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	3176422
Acid Extractable Arsenic (As)	ug/g	2.8	2.8	2.3	2.8	2.4	1.0	3176422
Acid Extractable Barium (Ba)	ug/g	80	82	57	72	61	0.50	3176422
Acid Extractable Beryllium (Be)	ug/g	0.59	0.60	0.47	0.57	0.54	0.20	3176422
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	3176422
Acid Extractable Cadmium (Cd)	ug/g	0.22	0.25	0.16	0.21	0.24	0.10	3176422
Acid Extractable Chromium (Cr)	ug/g	17	17	14	16	15	1.0	3176422
Acid Extractable Cobalt (Co)	ug/g	7.3	7.2	6.3	7.7	6.9	0.10	3176422
Acid Extractable Copper (Cu)	ug/g	13	14	12	12	11	0.50	3176422
Acid Extractable Lead (Pb)	ug/g	13	14	10	12	12	1.0	3176422
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3176422
Acid Extractable Nickel (Ni)	ug/g	14	15	13	14	12	0.50	3176422
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3176422
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	3176422
Acid Extractable Thallium (Tl)	ug/g	0.11	0.10	0.11	0.12	0.096	0.050	3176422
Acid Extractable Uranium (U)	ug/g	0.50	0.44	0.41	0.44	0.44	0.050	3176422
Acid Extractable Vanadium (V)	ug/g	25	25	22	25	24	5.0	3176422
Acid Extractable Zinc (Zn)	ug/g	45	46	36	43	39	5.0	3176422
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	3176422

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B352029
Report Date: 2013/04/10

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: VICTORIA PARK AND MCNICHOL

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		RC4921	RC4922		
Sampling Date		2013/04/09	2013/04/09		
COC Number		84158	84158		
	Units	**GS-6**	**GS-FD**	**RDL**	**QC Batch**
Metals					
Hot Water Ext. Boron (B)	ug/g	0.15	0.25	0.050	3176409
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	0.20	3176422
Acid Extractable Arsenic (As)	ug/g	2.5	2.7	1.0	3176422
Acid Extractable Barium (Ba)	ug/g	61	65	0.50	3176422
Acid Extractable Beryllium (Be)	ug/g	0.47	0.52	0.20	3176422
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	5.0	3176422
Acid Extractable Cadmium (Cd)	ug/g	0.18	0.19	0.10	3176422
Acid Extractable Chromium (Cr)	ug/g	15	15	1.0	3176422
Acid Extractable Cobalt (Co)	ug/g	6.7	7.0	0.10	3176422
Acid Extractable Copper (Cu)	ug/g	11	12	0.50	3176422
Acid Extractable Lead (Pb)	ug/g	12	13	1.0	3176422
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	0.50	3176422
Acid Extractable Nickel (Ni)	ug/g	13	13	0.50	3176422
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	0.50	3176422
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	0.20	3176422
Acid Extractable Thallium (Tl)	ug/g	0.095	0.095	0.050	3176422
Acid Extractable Uranium (U)	ug/g	0.39	0.42	0.050	3176422
Acid Extractable Vanadium (V)	ug/g	23	23	5.0	3176422
Acid Extractable Zinc (Zn)	ug/g	39	41	5.0	3176422
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	0.050	3176422

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B352029
Report Date: 2013/04/10

MMM Group Limited
Client Project #: 1005015-018-CA1
Site Location: VICTORIA PARK AND MCNICHOL

Package 1	11.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Sample RC4916-01: SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample RC4917-01: SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample RC4918-01: SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample RC4919-01: SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample RC4920-01: SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample RC4922-01: SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Carolyn Adams
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: VICTORIA PARK AND MCNICHOL

Quality Assurance Report

Maxxam Job Number: MB352029

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3176182	LHA	Matrix Spike						
		[RC4916-01]	Free Cyanide	2013/04/10		103	%	75 - 125
		Spiked Blank	Free Cyanide	2013/04/10		106	%	80 - 120
		Method Blank	Free Cyanide	2013/04/10	<0.01		ug/g	
		RPD [RC4916-01]	Free Cyanide	2013/04/10	NC		%	35
3176197	JL2	RPD	Moisture	2013/04/09	0.5		%	20
3176368	OK	Matrix Spike						
		[RC4916-01]	Chromium (VI)	2013/04/10		58 (1)	%	75 - 125
		QC Standard	Chromium (VI)	2013/04/10		103	%	75 - 125
		Spiked Blank	Chromium (VI)	2013/04/10		93	%	80 - 120
		Method Blank	Chromium (VI)	2013/04/10	<0.2		ug/g	
		RPD [RC4916-01]	Chromium (VI)	2013/04/10	NC		%	35
3176409	AFZ	Matrix Spike						
		[RC4917-01]	Hot Water Ext. Boron (B)	2013/04/10		97	%	75 - 125
		Spiked Blank	Hot Water Ext. Boron (B)	2013/04/10		101	%	75 - 125
		Method Blank	Hot Water Ext. Boron (B)	2013/04/10	<0.050		ug/g	
		RPD [RC4917-01]	Hot Water Ext. Boron (B)	2013/04/10	NC		%	35
3176422	JBW	Matrix Spike						
		[RC4917-01]	Acid Extractable Antimony (Sb)	2013/04/10		93	%	75 - 125
			Acid Extractable Arsenic (As)	2013/04/10		89	%	75 - 125
			Acid Extractable Barium (Ba)	2013/04/10		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2013/04/10		94	%	75 - 125
			Acid Extractable Boron (B)	2013/04/10		82	%	75 - 125
			Acid Extractable Cadmium (Cd)	2013/04/10		101	%	75 - 125
			Acid Extractable Chromium (Cr)	2013/04/10		89	%	75 - 125
			Acid Extractable Cobalt (Co)	2013/04/10		91	%	75 - 125
			Acid Extractable Copper (Cu)	2013/04/10		93	%	75 - 125
			Acid Extractable Lead (Pb)	2013/04/10		94	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2013/04/10		97	%	75 - 125
			Acid Extractable Nickel (Ni)	2013/04/10		92	%	75 - 125
			Acid Extractable Selenium (Se)	2013/04/10		94	%	75 - 125
			Acid Extractable Silver (Ag)	2013/04/10		100	%	75 - 125
			Acid Extractable Thallium (Tl)	2013/04/10		93	%	75 - 125
			Acid Extractable Uranium (U)	2013/04/10		97	%	75 - 125
			Acid Extractable Vanadium (V)	2013/04/10		89	%	75 - 125
			Acid Extractable Zinc (Zn)	2013/04/10		NC	%	75 - 125
			Acid Extractable Mercury (Hg)	2013/04/10		95	%	75 - 125
		Spiked Blank	Acid Extractable Antimony (Sb)	2013/04/10		100	%	80 - 120
			Acid Extractable Arsenic (As)	2013/04/10		96	%	80 - 120
			Acid Extractable Barium (Ba)	2013/04/10		95	%	80 - 120
			Acid Extractable Beryllium (Be)	2013/04/10		98	%	80 - 120
			Acid Extractable Boron (B)	2013/04/10		91	%	80 - 120
			Acid Extractable Cadmium (Cd)	2013/04/10		107	%	80 - 120
			Acid Extractable Chromium (Cr)	2013/04/10		94	%	80 - 120
			Acid Extractable Cobalt (Co)	2013/04/10		97	%	80 - 120
			Acid Extractable Copper (Cu)	2013/04/10		98	%	80 - 120
			Acid Extractable Lead (Pb)	2013/04/10		100	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2013/04/10		100	%	80 - 120
			Acid Extractable Nickel (Ni)	2013/04/10		100	%	80 - 120
			Acid Extractable Selenium (Se)	2013/04/10		100	%	80 - 120
			Acid Extractable Silver (Ag)	2013/04/10		105	%	80 - 120
			Acid Extractable Thallium (Tl)	2013/04/10		97	%	80 - 120
			Acid Extractable Uranium (U)	2013/04/10		103	%	80 - 120
			Acid Extractable Vanadium (V)	2013/04/10		92	%	80 - 120
			Acid Extractable Zinc (Zn)	2013/04/10		101	%	80 - 120

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Carolyn Adams
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: VICTORIA PARK AND MCNICHOL

Quality Assurance Report (Continued)

Maxxam Job Number: MB352029

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3176422	JBW	Spiked Blank	Acid Extractable Mercury (Hg)	2013/04/10		103	%	80 - 120
		Method Blank	Acid Extractable Antimony (Sb)	2013/04/10	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2013/04/10	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2013/04/10	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2013/04/10	<0.20		ug/g	
			Acid Extractable Boron (B)	2013/04/10	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2013/04/10	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2013/04/10	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2013/04/10	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2013/04/10	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2013/04/10	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2013/04/10	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2013/04/10	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2013/04/10	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2013/04/10	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2013/04/10	<0.050		ug/g	
			Acid Extractable Uranium (U)	2013/04/10	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2013/04/10	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2013/04/10	<5.0		ug/g	
			Acid Extractable Mercury (Hg)	2013/04/10	<0.050		ug/g	
		RPD [RC4917-01]	Acid Extractable Antimony (Sb)	2013/04/10	NC		%	30
			Acid Extractable Arsenic (As)	2013/04/10	NC		%	30
			Acid Extractable Barium (Ba)	2013/04/10	5.1		%	30
			Acid Extractable Beryllium (Be)	2013/04/10	NC		%	30
			Acid Extractable Boron (B)	2013/04/10	NC		%	30
			Acid Extractable Cadmium (Cd)	2013/04/10	NC		%	30
			Acid Extractable Chromium (Cr)	2013/04/10	3.9		%	30
			Acid Extractable Cobalt (Co)	2013/04/10	2.1		%	30
			Acid Extractable Copper (Cu)	2013/04/10	3.8		%	30
			Acid Extractable Lead (Pb)	2013/04/10	0.6		%	30
			Acid Extractable Molybdenum (Mo)	2013/04/10	NC		%	30
			Acid Extractable Nickel (Ni)	2013/04/10	3.3		%	30
			Acid Extractable Selenium (Se)	2013/04/10	NC		%	30
			Acid Extractable Silver (Ag)	2013/04/10	NC		%	30
			Acid Extractable Thallium (Tl)	2013/04/10	NC		%	30
			Acid Extractable Uranium (U)	2013/04/10	0.3		%	30
			Acid Extractable Vanadium (V)	2013/04/10	NC		%	30
			Acid Extractable Zinc (Zn)	2013/04/10	0.4		%	30
			Acid Extractable Mercury (Hg)	2013/04/10	NC		%	30
3176450	NYS	QC Standard	Conductivity	2013/04/10		98	%	90 - 110
		Spiked Blank	Conductivity	2013/04/10		99	%	90 - 110
		Method Blank	Conductivity	2013/04/10	<0.002		mS/cm	
		RPD [RC4917-01]	Conductivity	2013/04/10	1.8		%	10

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

MMM Group Limited
Attention: Carolyn Adams
Client Project #: 1005015-018-CA1
P.O. #:
Site Location: VICTORIA PARK AND MCNICHOL

Quality Assurance Report (Continued)

Maxxam Job Number: MB352029

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
(1) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample.								

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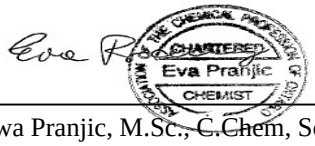
Validation Signature Page

Maxxam Job #: B352029

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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APPENDIX B – RISK MANAGEMENT MEASURES

B-1
CERTIFICATES OF PROPERTY USE

Certificate of Property Use

Environmental Protection Act, R.S.O. 1990, c.E.19, s.168.6

Certificate of Property Use Number 8812-7RBMXF-1
Risk Assessment Number 8812-7RBMXF

Client: **The Corporation of the Town of Newmarket** **(Owners)**
395 Mulock Drive
Newmarket, Ontario
L3Y 4X7

Site: **Parcel 1: William Thomas Mulock Park** **(Property)**
Parcel 2: Trail lands south of Mulock Drive

With a Legal Description of:

Parcel 1: Part 44 Plan 65R-16718, being
PIN 3589-0571, 3589-0572 and 3589-0429
Parcel 2: Part 64 Plan 65R-24258, Part 3 Plan 65R-31269, Block 5,
Plan 65M-4099, Part 4 Plan 65R-31269, being
PIN 3626-0353
Town of Newmarket, Regional Municipality of York

The conditions of this Certificate of Property Use (CPU) address the Risk Management Measures in the Risk Assessment noted above and described in detail in Part 1 below (Risk Assessment). In the event of a conflict between the CPU and the Risk Assessment, the conditions of the CPU take precedence.

Summary:

Refer to Part 1 of the CPU, Interpretation, for the meaning of all the defined capitalized terms that apply to the CPU.

i) CPU requirements addressed in Part 4 of the CPU, Director Requirements, are summarized as follows:

a.	Installing any equipment	No
b.	Monitoring any contaminant	No
c.	Refraining from constructing any building specified	Yes
d.	Refraining from using the Property for any use specified	Yes
e.	Other: Maintaining the current park use and configuration, ensuring fencing and prohibiting gates, preparing and/or implementing a soil management plan, health and safety plan, and a site development plan for the Property.	Yes

ii) Duration of Risk Management Measures identified in Part 4 of the CPU is summarized as follows:

a. The requirements to maintain the existing park and woodland configuration of Parcels 1 and 2, and control access with fencing and slashbacks and vegetation over Parcel 1 of the Property shall be maintained indefinitely until the Director alters or revokes the CPU

b. The site specific health and safety plan for workers exposed to site soils shall be required for as long as the Contaminants of Concern are present on the Property.

c. The soil management plan shall be required for the Property during any activities potentially in contact with or exposing site soils for as long as the Contaminants of Concern are present on the Property.

d. All other Risk Management Measures shall continue indefinitely until the Director alters or revokes the CPU.

Part 1: Interpretation

In the CPU the following terms shall have the meanings described below:

"Act" means the ***Environmental Protection Act***, R.S.O. 1990, c. E. 19, as amended.

"Adverse Effect" has the same meaning as in the Act; namely,
(a) impairment of the quality of the natural environment for any use that can be made of it,
(b) injury or damage to property or to plant or animal life,
(c) harm or material discomfort to any person,
(d) an adverse effect on the health of any person,
(e) impairment of the safety of any person,
(f) rendering any property or plant or animal life unfit for human use,
(g) loss of enjoyment of normal use of property, and
(h) interference with the normal conduct of business.

"Contaminant" has the same meaning as in the Act; namely any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of them, resulting directly or indirectly from human activities that causes or may cause an Adverse Effect.

"Contaminants of Concern" has the meaning as set out in section 3.2 of the CPU.

"CPU" means this Certificate of Property Use Number 8812-7RBMXF-1 as may be altered from time to time.

"Director" means the undersigned Director or any other person appointed as a Director for the purpose of issuing a certificate of property use.

"EBR" means the Environmental Bill of Rights, 1993, .S.O. 1993, c.28, as amended.

"Ministry" means the Ontario Ministry of the Environment.

"O. Reg. 153/04" means Ontario Regulation 153/04 "Records of Site Condition – Part XV.1 of the Act" as amended, made under the Act.

"Owner" means means the owner(s) of the Property including the person(s) to whom the CPU is issued, described in the "Client" section on page 1 above , **The Corporation of the Town of Newmarket**, the current registered owner(s) of the Property, and any subsequent owner of the Property.

"OWRA" means the ***Ontario Water Resources Act***, R.S.O. 1990, c. O. 40, as amended.

"Property" means the property that is the subject of the CPU and described in the "Site" section on page 1 above, and illustrated as RA Part 1 in Figure 1 of Schedule A attached to this CPU.

"Property Specific Standards" means the property specific standards established for the Contaminants of Concern set out in the Risk Assessment and in section 3.2 of the CPU.

"Provincial Officer" means a person who is designated as a provincial officer for the purposes of the Act.

"Qualified Person" means a person who has the training, experience and expertise to carry out the work described in the CPU where required and also meets the qualifications prescribed in O. Reg. 153/04 related to such work.

" Risk Assessment" means the Risk Assessment 8812-7RBMXF which includes a geographic area that is greater than the Property and was accepted by the Director on October 13, 2011, and set out in the following documents:

- "PSF for Former Mulock Farm Property, Town of Newmarket, Regional Municipality of York, by Intrinsik Environmental Sciences Inc. dated April 20, 2009
- "Risk Assessment of the Former Mulock Farm Property, Newmarket, Ontario", by Intrinsik Environmental Science Inc, dated April 2010;
- "A Risk Assessment of the Former Mulock Farm Property, Newmarket, Ontario", by Intrinsik Environmental Science Inc, dated September 2010;
- "Risk Assessment for the Former Mulock Farm Property, Newmarket, Ontario" prepared by Intrinsic Environmental Sciences Inc., dated May 2011.

"Risk Management Measures" means the risk management measures specific to the Property described in the Risk Assessment and/or Part 4 of the CPU.

"Tribunal" has the same meaning as in the Act; namely, the Environmental Review Tribunal.

Part 2: Legal Authority

2.1 Section 19 of the Act states that a certificate of property use is binding on the executor, administrator, administrator with the will annexed, guardian of property or attorney for property of the person to whom it was directed, and on any other successor or assignee of the person to whom it was directed.

2.2 Subsection 132(1.1) of the Act states that the Director may include in a certificate of property use a requirement that the person to whom the certificate is issued provide financial assurance to the Crown in right of Ontario for any one or more of,

(a) the performance of any action specified in the certificate of property use;
(b) the provision of alternate water supplies to replace those that the Director has reasonable and probable grounds to believe are or are likely to be contaminated or otherwise interfered with by a contaminant on, in or under the property to which the certificate of property use relates; and
(c) measures appropriate to prevent adverse effects in respect of the property to which the certificate of property use relates.

2.3 Section 168.6 (1) of the Act states that if a risk assessment relating to a property has been accepted under clause 168.5 (1)(a), the Director may issue a certificate of property use to the owner of the property, requiring the owner to do any of the following things:

1) Take any action that is specified in the certificate and that, in the Director's opinion, is necessary to prevent, eliminate or ameliorate any adverse effect that has been identified in the risk assessment, including installing any equipment, monitoring any contaminant or recording or reporting information for that purpose.
2) Refrain from using the property for any use specified in the certificate or from constructing any building specified in the certificate on the property.

2.4 Subsection 168.6(2) of the Act states that a certificate of property use shall not require an owner of property to take any action that would have the effect of reducing the concentration of a contaminant on, in or under the property to a level below the level that is required to meet the standards specified for the contaminant in the risk assessment.

2.5 Subsection 168.6(3) of the Act states that the Director may, on his or her own initiative or on application by the owner of the property in respect of which a certificate has been issued under subsection 168.6(1),

(a) alter any terms and conditions in the certificate or impose new terms and conditions; or
(b) revoke the certificate.

2.6 Subsection 168.6(4) of the Act states that if a certificate of property use contains a provision requiring the owner of the property to refrain from using the property for a specified use or from constructing a specified building on the property,

(a) the owner of the property shall ensure that a copy of the provision is given to every occupant of the property;

(b) the provision applies, with necessary modifications, to every occupant of the property who receives a copy of the provision; and

(c) the owner of the property shall ensure that every occupant of the property complies with the provision.

2.7 Subsection 197(1) of the Act states that a person who has authority under the Act to make an order or decision affecting real property also has authority to make an order requiring any person with an interest in the property, before dealing with the property in any way, to give a copy of the order or decision affecting the property to every person who will acquire an interest in the property as a result of the dealing.

2.8 Subsection 197(2) of the Act states that a certificate setting out a requirement imposed under subsection 197(1) may be registered in the proper land registry office on the title of the real property to which the requirement relates, if the certificate is in a form approved by the Minister, is signed or authorized by a person who has authority to make orders imposing requirements under subsection 197(1) and is accompanied by a registrable description of the property.

2.9 Subsection 197(3) of the Act states that a requirement, imposed under subsection 197(1) that is set out in a certificate registered under subsection 197(2) is, from the time of registration, deemed to be directed to each person who subsequently acquires an interest in the real property.

2.10 Subsection 197(4) of the Act states that a dealing with real property by a person who is subject to a requirement imposed under subsection 197(1) or 197(3) is voidable at the instance of a person who was not given the copy of the order or decision in accordance with the requirement.

Part 3: Background

3.1 The Risk Assessment was undertaken for the Property to establish the risks that the Contaminants identified in the Risk Assessment may pose to future users and to identify appropriate Risk Management Measures to be implemented to ensure that the Property is suitable for the intended use: **Parkland**, as defined in O. Reg. 153/04**.**

3.2 The Contaminants on, in or under the Property that are present above **Table 2** of the ***Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act published by the Ministry and dated April 15, 2011*** or are set out in the Risk Assessment and in Schedule B (Contaminants of Concern). The Property Specific Standards for these Contaminants of Concern are also set out in Schedule B which is attached to and forms part of the CPU. Also attached to and forming part of the CPU in Schedule A, for reference purposes is a copy of Figure 1 identifying the Property.

3.3 I am of the opinion, for the reasons set out in the Risk Assessment that the Risk Management Measures described therein and outlined in Part 4 of the CPU are necessary to prevent, eliminate or ameliorate an Adverse Effect on the Property.

3.4 The Risk Assessment indicates the presence of Contaminants of Concern including; salt, metals, organochlorine pesticides in soil and groundwater which require on-going restriction of land use and pathway elimination. As such, it is necessary to restrict the use of the Property and restrict the construction of any buildings on the Property as set out in the Risk Assessment and in Part 4 of the CPU.

Part 4: Director Requirements

Pursuant to the authority vested in me under section 168.6(1) of the Act, I hereby require the Owner to do or cause to be done the following:

Risk Management Measures

4.1 Implement, and thereafter maintain or cause to be maintained, the Risk Management Measures.

4.2 Without restricting the generality of the foregoing in Item 4.1, carry out or cause to be carried out the following key elements of the Risk Management Measures:

(a) The current parkland configuration of the Property shall be maintained and include the following requirements:

i. Access to Parcel 1 shall be limited with the development and implementation of a site access and control plan. This plan shall describe where fencing will be required between the Site and residential properties, the location and maintenance of slashbacks and/or restrictive vegetation and any other measures to ensure there is no access to parcel 1 via gates from neighbouring residential properties.

ii. A maximum 2m slashback from the parcel 2 trail and from residential areas adjacent to parcel 1 shall be maintained; and

iii. No changes to the existing park and woodland areas including no construction of subsurface utilities or active recreation facilities.

iv. A copy of the site access and control plan shall be made available upon request by a Provincial Officer.

(b) A soil management plan shall be prepared and implemented for the Property during any activities potentially in contact with or exposure to site soils. A copy of the plan shall be made available for review by a Provincial Officer upon request. The plan shall be overseen by a Qualified Person and shall include, but not be limited to, provisions for soils excavation, stockpiling, characterization, reuse or disposal and record keeping specified below:

i. Dust control measures and prevention of soil tracking by vehicles and personnel from the Property, including wetting of soil with potable water, reduced speeds for on-site vehicles, tire washing stations, mud mats and restricting working areas in high wind conditions;

ii. Management of excavated materials including cleaning equipment, placement of materials for stockpiling on designated areas lined and covered with polyethylene sheeting, bermed and fenced to prevent access, runoff control to minimize contact and provisions for discharge to sanitary sewers or other approved treatment;

iii. Characterization of excavated materials to determine if materials exceed the Property Specific Standards and require off-site disposal in accordance with the provisions of O. Reg. 347, as amended, made under the Act. Where excavated material meets the Property Specific Standards it may be reused on site if deemed suitable by a Qualified Person and a geotechnical engineer.

iv. Record keeping including dates and duration of work, weather and site conditions, location and depth of excavation activities, dust control measures, stockpile management and drainage, all materials characterization results, names of the Qualified Person, contractors, haulers and receiving sites for any materials removed from the Property and any complaints received relating to site activities.

(c) A site specific health and safety plan shall be developed and implemented for the Property during all intrusive activities potentially in contact with or exposing on-site soils and a copy shall be maintained on the Property for the duration of all intrusive activities. The Owner shall ensure that the health and safety Plan takes into account the presence of the Contaminants of Concern and is implemented prior to any intrusive work being done on the Property in order to protect workers from exposure to the Contaminants of Concern. The health and safety plan shall be prepared in accordance with applicable Ministry of Labour health and safety regulations, along with any potential risks identified in the Risk Assessment and include, but not limited to, occupational hygiene requirements, personal protective equipment, contingency plans and contact information. Prior to initiation of any project (as defined in the Occupational Health and Safety Act, as amended) on the Property, the local Ministry of Labour office shall be notified of the proposed activities and that the Property contains contaminated soils. The health and safety plan shall be overseen by an appropriately qualified person to review the provisions of the plan with respect to the proposed site work and conduct daily inspections. The Owner shall retain a copy of the plan to be available for review by the Ministry upon request.

(d) The Owner shall prepare a site plan and site drawing within three months of completion of site remediation activities proposed in the Risk Assessment which describes the Property, remediation work completed, measures taken to minimize disruption to existing vegetation and to limit access. The accompanying site drawing will include plan and cross section drawings specifying the vertical and lateral extent of remediation completed and any new vegetation planted at the remediation site and fencing at the Property. This plan shall be submitted to the Director and the Owner shall retain one copy available for inspection upon request by a Provincial Officer.

(e) An inspection and maintenance program shall be implemented to ensure the continuing effectiveness of the risk management measures. The inspection program shall include a semi-annual (two times per year) inspection of the Parcel 2 trail and perimeter slashback and buffers and fencing associated with Parcel 1. Any areas with vegetation loss, evidence of uncontrolled access or fencing deficiencies shall be identified and addressed forthwith. Based on a minimum of two years of inspection and maintenance program results, the Owner may make an application to the Director to alter the CPU and reduce the inspection program to annual events.

(f) The Owner shall maintain records which shall be available for inspection upon request by a Provincial Officer. The records shall contain information regarding the Risk Management Measures undertaken including, but not limited to, the following information:

(i) A copy of the inspections of the Property and any activities carried out as a result of the inspections;
(ii) A copy of all records relating to the soil management plan; and
(iii) A copy of all records relating to the health and safety plan.

4.3 Refrain from using the Property for any of the following use(s):
(i) All property uses, except for "parkland use" as defined in O.Reg. 153/04

4.4 Refrain from constructing the following building(s): No residential buildings or active recreation facilities.

4.5 The Owner shall ensure that every occupant of the Property is given notice that the Ministry has issued this CPU and that it contains the provisions noted above in sections 4.3 and 4.4, unless noted N/A. For the purposes of this requirement, an occupant means any person with whom the Owner has a contractual relationship regarding the occupancy of all or part of the Property.

Site Changes

4.6 In the event of a change in the physical site conditions or receptor characteristics at the Property that may affect the Risk Management Measures and/or any underlying basis for the Risk Management Measures, forthwith notify the Director of such changes and the steps taken, to implement, maintain and operate any further Risk Management Measures as are necessary to prevent, eliminate or ameliorate any Adverse Effect that will result from the presence on, in or under the Property or the discharge of any Contaminant of Concern into the natural environment from the Property. An amendment to the CPU will be issued to address the changes set out in the notice received and any further changes that the Director considers necessary in the circumstances.

Reports

4.7 Retain a copy of any reports required under the CPU, the Risk Assessment and any reports referred to in the Risk Assessment (until otherwise notified by the Director) and within ten (10) days of the Director or a Provincial Officer making a request for a report, provide a copy to the Director or Provincial Officer.

Property Requirement

4.8 For the reasons set out in the CPU and pursuant to the authority vested in me under subsection 197(1) of the Act, I hereby order the Owner and any other person with an interest in the Property, before dealing with the Property in any way, to give a copy of the CPU, including any amendments thereto, to every person who will acquire an interest in the Property as a result of the dealing.

Certificate of Requirement

4.9 Within fifteen (15) days from the date of receipt of a certificate of requirement, issued under subsection 197(2) of the Act, register the certificate of requirement on title to the Property in the appropriate land registry office.

4.10 Immediately after registration of the certificate of requirement, provide to the Director written verification that the certificate of requirement has been registered on title to the Property.

Owner / Occupant Change

4.11 While the CPU is in effect, forthwith report in writing to the Director any changes of ownership, or occupancy of the Property.

Financial Assurance

4.12 The Director has not included in the CPU a requirement that the Owner provide financial assurance to the Crown in right of Ontario.

Part 5: General

5.1 The requirements of the CPU are severable. If any requirement of the CPU or the application of any requirement to any circumstance is held invalid, the application of such requirement to other circumstances and the remainder of the CPU shall not be affected thereby.

5.2 An application under sub section 168.6(3) of the Act to,
a) alter any terms and conditions in the CPU or impose new terms and conditions; or
b) revoke the CPU;
shall be made in writing to the Director, with reasons for the request.

5.3 The Director may alter the CPU under subsections 132(2) or (3) of the Act to change a requirement as to financial assurance, including that the financial assurance may be increased or provided, reduced or released in stages. The total financial assurance required may be reduced from time to time or released by an order issued by the Director under section 134 of the Act upon request and submission of such supporting documentation as required by the Director.

5.4 Subsection 186(3) of the Act provides that non-compliance with the requirements of the CPU constitutes an offence.

5.5 The requirements of the CPU are minimum requirements only and do not relieve the Owner from,
a) complying with any other applicable order, statute, regulation, municipal, provincial or federal law; or
b) obtaining any approvals or consents not specified in the CPU.

5.6 Notwithstanding the issuance of the CPU, further requirements may be imposed in accordance with legislation as circumstances require. The Director shall also alter the CPU where the approval or acceptance of the Director is required in respect of a matter under the CPU and the Director either does not grant the approval or acceptance or does not grant it in a manner agreed to by the Owner.

5.7 In the event that, any person is, in the opinion of the Director, rendered unable to comply with any requirements in the CPU because of,

a) natural phenomena of an inevitable or irresistible nature, or insurrections,
b) strikes, lockouts or other labour disturbances,
c) inability to obtain materials or equipment for reasons beyond their control, or
d) any other cause whether similar to or different from the foregoing beyond their control,

the requirements shall be adjusted in a manner defined by the Director. To obtain such an adjustment, the Director must be notified immediately of any of the above occurrences, providing details that demonstrate that no practical alternatives are feasible in order to meet the requirements in question.

5.8 Failure to comply with a requirement of the CPU by the date specified does not absolve the Owner from compliance with the requirement. The obligation to complete the requirement shall continue each day thereafter.

Part 6: Hearing before the Environmental Review Tribunal

6.1 Pursuant to section 139 of the Act, you may require a hearing before the Environmental Review Tribunal (the "Tribunal"), if within fifteen (15) days after service on you of a copy of the CPU, you serve written notice upon the Director and the Tribunal.

6.2 Pursuant to section 142 of the Act, the notice requiring the hearing must include a statement of the portions of the CPU and the grounds on which you intend to rely at the hearing. Except by leave of the Tribunal, you are not entitled to appeal a portion of the CPU or to rely on a ground, that is not stated in the notice requiring the hearing.

6.3 Service of a notice requiring a hearing must be carried out in a manner set out in section 182 of the Act and Ontario Regulation 227/07: ***Service of Documents,*** made under the Act as they may be amended from time to time. The address, email address and fax numbers of the Director and the Tribunal are:

The Secretary
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, ON, M5G 1E5
Fax: (416) 314-4506
Email: ERTTribunalSecretary@ontario.ca

and

Dave Fumerton, Director
Ministry of the Environment
230 Westney Road South, 5th Floor
Ajax, ON
L1S 7J5

Fax: 905-427-5602
Email: Dave.Fumerton@ontario.ca

6.4 Unless stayed by application to the Tribunal under section 143 of the Act, the CPU is effective from the date of issue.

6.5 If you commence an appeal before the Tribunal, under section 47 of the Environmental Bill of Rights, 1993 (the "EBR"), you must give notice to the public in the EBR registry. The notice must include a brief description of the CPU (sufficient to identify it) and a brief description of the grounds of appeal.

The notice must be delivered to the Environmental Commissioner of Ontario who will place it on the EBR registry. The notice must be delivered to the Environmental Commissioner at 605-1075 Bay Street, Toronto, Ontario M5S 2B1 by the earlier of:

6.5.1 two (2) days after the day on which the appeal before the Tribunal was commenced; and

6.5.2 fifteen (15) days after service on you of a copy of the CPU.

6.6 Pursuant to subsection 47(7) of the EBR, the Tribunal may permit any person to participate in the appeal, as a party or otherwise, in order to provide fair and adequate representation of the private and public interests, including governmental interests, involved in the appeal.

6.7 For your information, under section 38 of the EBR, any person resident in Ontario with an interest in the CPU may seek leave to appeal the CPU. Under section 40 of the EBR, the application for leave to appeal must be made to the Tribunal by the earlier of:

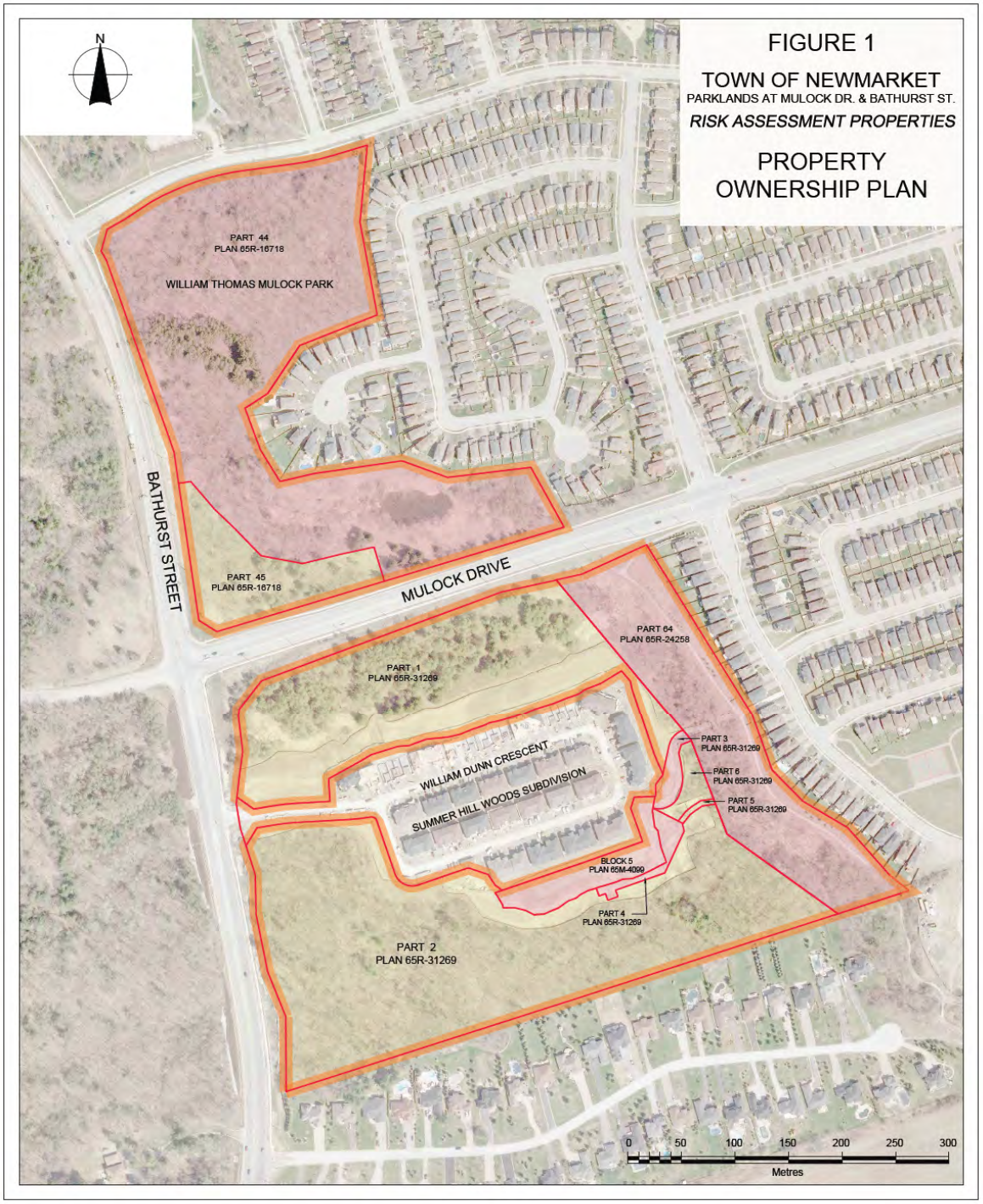
6.7.1 fifteen (15) days after the day on which notice of the issuance of the CPU is given in the EBR registry; and

6.7.2 if you appeal, fifteen (15) days after the day on which your notice of appeal is given in the EBR registry.

Issued at Ajax this 22nd day of June, 2012.

Dave Fumerton,
Director, section 168.6 of the Act

Schedule ‘A’: Figure 1



LEGEND

- PROPERTY BOUNDARIES
- RISK ASSESSMENT BOUNDARY
- LANDS OWNED BY CORPORATION OF THE TOWN OF NEWMARKET
- LANDS OWNED BY CRITERION DEVELOPMENT CORPORATION (TO BE CONVEYED TO THE TOWN OF NEWMARKET)

NOTE:
THE RIGHT OF WAY FOR BATHURST STREET AND MULOCK DRIVE IS OWNED BY THE REGIONAL MUNICIPALITY OF YORK

Image Source:
Background 2009 colour air photos obtained from First Base Solutions Inc.

Scale 1:3,500
March 2012
Project Number: D24650
Projection: UTM Zone 17
Datum: NAD83
Prepared by: C. Sheppard
Verified by: J. Walls

BURNSIDE

246500 RISK ASSESSMENT PROPERTY OWNERSHIP PLAN.dwg

Schedule ‘B’
Property Specific Standards

Environmental Media	Contaminants of Concern (COC)	Property Specific Stratified Soil Standards (µg/g)	Property Specific Groundwater Standards (µg/L)
Groundwater	Barium		1000
Groundwater	Lead		10
Groundwater	Chloride		790,000
Groundwater	Sodium		41,000
Soil	Arsenic	58	
Soil	Boron	1.5	
Soil	Lead	460	
Soil	Dichlorodiphenyldichloroethane (DDD)	0.026	
Soil	Dichlorodiphenyldichloroethylene (DDE)	0.48	

Certificate of Property Use

Environmental Protection Act, R.S.O. 1990, c.E.19, s.168.6

Certificate of Property Use Number 8812-7RBMXF-2
Risk Assessment Number 8812-7RBMXF

Client: **Criterion Development Corporation** **(Owners)**
3625 Dufferin Street, Suite 404
Toronto, Ontario
M3K 1N4

Site: **Part of Parcel 1: Southwest Part of William Thomas Mulock Park (Property)**
Parcels 3 & 4: Northern and Southern Forested Lands south of Mulock Drive around William Dunn Crescent

With a Legal Description of:

Part of Lot 91, Concession 1 WYS (King) designated as PART 45 on Plan 65R-16718 (Newmarket) and Part of Block 6, Plan 65M-4099, designated as Parts 1, 2, 5 and 6 on Plan 65R-31269, Part 45: PIN 03589-0572, Part 1: PIN 03626-2313 and Parts 2, 5 and 6: PIN 03626-2312
Town of Newmarket, Regional Municipality of York.

The conditions of this Certificate of Property Use (CPU) address the Risk Management Measures in the Risk Assessment noted above and described in detail in Part 1 below (Risk Assessment). In the event of a conflict between the CPU and the Risk Assessment, the conditions of the CPU take precedence.

Summary:

Refer to Part 1 of the CPU, Interpretation, for the meaning of all the defined capitalized terms that apply to the CPU.

i) CPU requirements addressed in Part 4 of the CPU, Director Requirements, are summarized as follows:

a.	Installing any equipment	No
b.	Monitoring any contaminant	No
c.	Refraining from constructing any building specified	Yes
d.	Refraining from using the Property for any use specified	Yes
e.	Other: Maintaining the current park and woodland use and configuration, ensuring fencing and prohibiting gates, preparing and/or implementing a soil management plan, health and safety plan, and a site development plan for the Property.	Yes

ii) Duration of Risk Management Measures identified in Part 4 of the CPU is summarized as follows:

a. The requirements to maintain the existing park and woodland configuration, and control access with fencing and slashbacks and vegetation over the Property shall be maintained indefinitely until the

Director alters or revokes the CPU

b. The site specific health and safety plan for workers exposed to site soils shall be required for as long as the Contaminants of Concern are present on the Property.

c. The soil management plan shall be required for the Property during any activities potentially in contact with or exposing site soils for as long as the Contaminants of Concern are present on the Property.

d. All other Risk Management Measures shall continue indefinitely until the Director alters or revokes the CPU.

Part 1: Interpretation

In the CPU the following terms shall have the meanings described below:

"Act" means the ***Environmental Protection Act***, R.S.O. 1990, c. E. 19, as amended.

"Adverse Effect" has the same meaning as in the Act; namely,
(a) impairment of the quality of the natural environment for any use that can be made of it,
(b) injury or damage to property or to plant or animal life,
(c) harm or material discomfort to any person,
(d) an adverse effect on the health of any person,
(e) impairment of the safety of any person,
(f) rendering any property or plant or animal life unfit for human use,
(g) loss of enjoyment of normal use of property, and
(h) interference with the normal conduct of business.

"Contaminant" has the same meaning as in the Act; namely any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of them, resulting directly or indirectly from human activities that causes or may cause an Adverse Effect.

"Contaminants of Concern" has the meaning as set out in section 3.2 of the CPU.

"CPU" means this Certificate of Property Use Number 8812-7RBMXF-2 as may be altered from time to time.

"Director" means the undersigned Director or any other person appointed as a Director for the purpose of issuing a certificate of property use.

"EBR" means the Environmental Bill of Rights, 1993, S.O. 1993, c.28, as amended.

"Ministry" means the Ontario Ministry of the Environment.

"O. Reg. 153/04" means Ontario Regulation 153/04 "Records of Site Condition – Part XV.1 of the Act" as amended, made under the Act.

"Owner" means means the owner(s) of the Property including the person(s) to whom the CPU is issued, described in the "Client" section on page 1 above , **Criterion Development Corporation,** the current registered owner(s) of the Property, and any subsequent owner of the Property.

"OWRA" means the ***Ontario Water Resources Act***, R.S.O. 1990, c. O. 40, as amended.

"Property" means the property that is the subject of the CPU and described in the "Site" section on page 1 above, and illustrated as in Figures 1 and 2 of Schedule A attached to this CPU.

"Property Specific Standards" means the property specific standards established for the Contaminants of Concern set out in the Risk Assessment and in section 3.2 of the CPU.

"Provincial Officer" means a person who is designated as a provincial officer for the purposes of the Act.

“Qualified Person” means a person who has the training, experience and expertise to carry out the work described in the CPU where required and also meets the qualifications prescribed in O. Reg. 153/04 related to such work.

"Risk Assessment" means the Risk Assessment 8812-7RBMXF which includes a geographic area that is greater than the Property and was accepted by the Director on October 13, 2011, and set out in the following documents:

- “PSF for Former Mulock Farm Property, Town of Newmarket, Regional Municipality of York, by Intrinsik Environmental Sciences Inc. dated April 20, 2009
- “Risk Assessment of the Former Mulock Farm Property, Newmarket, Ontario”, by Intrinsik Environmental Science Inc, dated April 2010;
- “A Risk Assessment of the Former Mulock Farm Property, Newmarket, Ontario”, by Intrinsik Environmental Science Inc, dated September 2010;
- “Risk Assessment for the Former Mulock Farm Property, Newmarket, Ontario” prepared by Intrinsic Environmental Sciences Inc., dated May 2011.

"Risk Management Measures" means the risk management measures specific to the Property described in the Risk Assessment and/or Part 4 of the CPU.

“Tribunal” has the same meaning as in the Act; namely, the Environmental Review Tribunal.

Part 2: Legal Authority

2.1 Section 19 of the Act states that a certificate of property use is binding on the executor, administrator, administrator with the will annexed, guardian of property or attorney for property of the person to whom it was directed, and on any other successor or assignee of the person to whom it was directed.

2.2 Subsection 132(1.1) of the Act states that the Director may include in a certificate of property use a requirement that the person to whom the certificate is issued provide financial assurance to the Crown in right of Ontario for any one or more of,

(a) the performance of any action specified in the certificate of property use;
(b) the provision of alternate water supplies to replace those that the Director has reasonable and probable grounds to believe are or are likely to be contaminated or otherwise interfered with by a contaminant on, in or under the property to which the certificate of property use relates; and
(c) measures appropriate to prevent adverse effects in respect of the property to which the certificate of property use relates.

2.3 Section 168.6 (1) of the Act states that if a risk assessment relating to a property has been accepted under clause 168.5 (1)(a), the Director may issue a certificate of property use to the owner of the property, requiring the owner to do any of the following things:

1) Take any action that is specified in the certificate and that, in the Director’s opinion, is necessary to prevent, eliminate or ameliorate any adverse effect that has been identified in the risk assessment, including installing any equipment, monitoring any contaminant or recording or reporting information for that purpose.
2) Refrain from using the property for any use specified in the certificate or from constructing any building specified in the certificate on the property.

2.4 Subsection 168.6(2) of the Act states that a certificate of property use shall not require an owner of property to take any action that would have the effect of reducing the concentration of a contaminant on, in or under the property to a level below the level that is required to meet the standards specified for the contaminant in the risk assessment.

2.5 Subsection 168.6(3) of the Act states that the Director may, on his or her own initiative or on application by the owner of the property in respect of which a certificate has been issued under subsection 168.6(1),

(a) alter any terms and conditions in the certificate or impose new terms and conditions; or
(b) revoke the certificate.

2.6 Subsection 168.6(4) of the Act states that if a certificate of property use contains a provision requiring the owner of the property to refrain from using the property for a specified use or from constructing a specified building on the property,

(a) the owner of the property shall ensure that a copy of the provision is given to every occupant of the property;
(b) the provision applies, with necessary modifications, to every occupant of the property who receives a copy of the provision; and
(c) the owner of the property shall ensure that every occupant of the property complies with the provision.

2.7 Subsection 197(1) of the Act states that a person who has authority under the Act to make an order or decision affecting real property also has authority to make an order requiring any person with an interest in the property, before dealing with the property in any way, to give a copy of the order or decision affecting the property to every person who will acquire an interest in the property as a result of the dealing.

2.8 Subsection 197(2) of the Act states that a certificate setting out a requirement imposed under subsection 197(1) may be registered in the proper land registry office on the title of the real property to which the requirement relates, if the certificate is in a form approved by the Minister, is signed or authorized by a person who has authority to make orders imposing requirements under subsection 197(1) and is accompanied by a registrable description of the property.

2.9 Subsection 197(3) of the Act states that a requirement, imposed under subsection 197(1) that is set out in a certificate registered under subsection 197(2) is, from the time of registration, deemed to be directed to each person who subsequently acquires an interest in the real property.

2.10 Subsection 197(4) of the Act states that a dealing with real property by a person who is subject to a requirement imposed under subsection 197(1) or 197(3) is voidable at the instance of a person who was not given the copy of the order or decision in accordance with the requirement.

Part 3: Background

3.1 The Risk Assessment was undertaken for the Property to establish the risks that the Contaminants identified in the Risk Assessment may pose to future users and to identify appropriate Risk Management Measures to be implemented to ensure that the Property is suitable for the intended use: **Parkland**, as defined in O. Reg. 153/04**.**

3.2 The Contaminants on, in or under the Property that are present above **Table 2** of the ***Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act published by the Ministry and dated April 15, 2011*** or are set out in the Risk Assessment and in Schedule B (Contaminants of Concern). The Property Specific Standards for these Contaminants of Concern are also set out in Schedule B which is attached to and forms part of the CPU. Also attached to and forming part of the CPU in Schedule A, for reference purposes is a copy of a Figures 1 and 2 identifying the Property.

3.3 I am of the opinion, for the reasons set out in the Risk Assessment that the Risk Management Measures described therein and outlined in Part 4 of the CPU are necessary to prevent, eliminate or ameliorate an Adverse Effect on the Property.

3.4 The Risk Assessment indicates the presence of Contaminants of Concern including; salt, metals, organochlorine pesticides in soil and groundwater which require on-going restriction of land use and pathway elimination. As such, it is necessary to restrict the use of the Property and restrict the construction of any buildings on the Property as set out in the Risk Assessment and in Part 4 of the CPU.

Part 4: Director Requirements

Pursuant to the authority vested in me under section 168.6(1) of the Act, I hereby require the Owner to do or cause to be done the following:

Risk Management Measures

4.1 Implement, and thereafter maintain or cause to be maintained, the Risk Management Measures.

4.2 Without restricting the generality of the foregoing in Item 4.1, carry out or cause to be carried out the following key elements of the Risk Management Measures:

(a) The current parkland configuration of the Property shall be maintained and include the following requirements:

i. Access shall be limited with the development and implementation of a site access and control plan. This plan shall describe where fencing will be required between the Property and residential properties, the location and maintenance of slashbacks and/or restrictive vegetation and any other measures to ensure there is no access via gates from neighbouring residential properties.

ii. A maximum 2m slashback from residential areas shall be maintained; and

iii. No changes to the existing park and woodland areas including no construction of subsurface utilities or active recreation facilities.

iv. A copy of the site access and control plan shall be made available upon request by a Provincial Officer.

(b) A soil management plan shall be prepared and implemented for the Property during any activities potentially in contact with or exposure to site soils. A copy of the plan shall be made available for review by a Provincial Officer upon request. The plan shall be overseen by a Qualified Person and shall include, but not be limited to, provisions for soils excavation, stockpiling, characterization, reuse or disposal and record keeping specified below:

i. Dust control measures and prevention of soil tracking by vehicles and personnel from the Property, including wetting of soil with potable water, reduced speeds for on-site vehicles, tire washing stations, mud mats and restricting working areas in high wind conditions;

ii. Management of excavated materials including cleaning equipment, placement of materials for stockpiling on designated areas lined and covered with polyethylene sheeting, bermed and fenced to prevent access, runoff control to minimize contact and provisions for discharge to sanitary sewers or other approved treatment;

iii. Characterization of excavated materials to determine if materials exceed the Property Specific Standards and require off-site disposal in accordance with the provisions of O. Reg. 347, as amended, made under the Act. Where excavated material meets the Property Specific Standards it may be reused on-site if deemed suitable by a Qualified Person and a geotechnical engineer.

iv. Record keeping including dates and duration of work, weather and site conditions, location and depth of excavation activities, dust control measures, stockpile management and drainage, all materials characterization results, names of the Qualified Person, contractors, haulers and receiving sites for any materials removed from the Property and any complaints received relating to site activities.

(c) A site specific health and safety plan shall be developed and implemented for the Property during all intrusive activities potentially in contact with or exposing on-site soils and a copy shall be maintained on the Property for the duration of all intrusive activities. The Owner shall ensure that the health and safety plan takes into account the presence of the Contaminants of Concern and is implemented prior to any intrusive work being done on the Property in order to protect workers from exposure to the Contaminants of Concern. The health and safety plan shall be prepared in accordance with applicable Ministry of Labour health and safety regulations, along with any potential risks identified in the Risk Assessment and include, but not limited to, occupational hygiene requirements, personal protective equipment, contingency plans and contact information. Prior to initiation of any project (as defined in the Occupational Health and Safety Act, as amended) on the Property, the local Ministry of Labour office shall be notified of the proposed activities and that the Property contains contaminated soils. The health and safety plan shall be overseen by an appropriately qualified person to review the provisions of the plan with respect to the proposed site work and conduct daily inspections. The Owner shall retain a copy of the plan to be available for review by the Ministry upon request.

(d) The Owner shall prepare a site plan and site drawing within three months of completion of site remediation activities proposed in the Risk Assessment which describes the Property, remediation work completed, measures taken to minimize disruption to existing vegetation and to limit access. The accompanying site drawing will include plan and cross section drawings specifying the vertical and lateral extent of remediation completed and any new vegetation planted at the remediation site and fencing at the Property.

This plan shall be submitted to the Director and the Owner shall retain one copy available for inspection upon request by a Provincial Officer.

(e) An inspection and maintenance program shall be implemented to ensure the continuing effectiveness of the Risk Management Measures. The inspection program shall include a semi-annual (two times per year) inspection of the perimeter slashback and buffers and fencing. Any areas with vegetation loss, evidence of uncontrolled access or fencing deficiencies shall be identified and addressed forthwith. Based on a minimum of two years of inspection and maintenance program results, the Owner may make an application to the Director to alter the CPU and reduce the inspection program to annual events.

(f) The Owner shall maintain records which shall be available for inspection upon request by a Provincial Officer. The records shall contain information regarding the Risk Management Measures undertaken including, but not limited to, the following information:

(i) A copy of the inspections of the Property and any activities carried out as a result of the inspections;
(ii) A copy of all records relating to the soil management plan; and
(iii) A copy of all records relating to the health and safety plan.

4.3 Refrain from using the Property for any of the following use(s):
(i) All property uses, except for "parkland use" as defined in O.Reg. 153/04.

4.4 Refrain from constructing the following building(s): No residential buildings or active recreation facilities.

4.5 The Owner shall ensure that every occupant of the Property is given notice that the Ministry has issued this CPU and that it contains the provisions noted above in sections 4.3 and 4.4, unless noted N/A. For the purposes of this requirement, an occupant means any person with whom the Owner has a contractual relationship regarding the occupancy of all or part of the Property.

Site Changes

4.6 In the event of a change in the physical site conditions or receptor characteristics at the Property that may affect the Risk Management Measures and/or any underlying basis for the Risk Management Measures, forthwith notify the Director of such changes and the steps taken, to implement, maintain and operate any further Risk Management Measures as are necessary to prevent, eliminate or ameliorate any Adverse Effect that will result from the presence on, in or under the Property or the discharge of any Contaminant of Concern into the natural environment from the Property. An amendment to the CPU will be issued to address the changes set out in the notice received and any further changes that the Director considers necessary in the circumstances.

Reports

4.7 Retain a copy of any reports required under the CPU, the Risk Assessment and any reports referred to in the Risk Assessment (until otherwise notified by the Director) and within ten (10) days of the Director or a Provincial Officer making a request for a report, provide a copy to the Director or Provincial Officer.

Property Requirement

4.8 For the reasons set out in the CPU and pursuant to the authority vested in me under subsection 197(1) of the Act, I hereby order the Owner and any other person with an interest in the Property, before dealing with the Property in any way, to give a copy of the CPU, including any amendments thereto, to every person who will acquire an interest in the Property as a result of the dealing.

Certificate of Requirement

4.9 Within fifteen (15) days from the date of receipt of a certificate of requirement, issued under subsection 197(2) of the Act, register the certificate of requirement on title to the Property in the appropriate land registry office.

4.10 Immediately after registration of the certificate of requirement, provide to the Director written verification that the certificate of requirement has been registered on title to the Property.

Owner / Occupant Change

4.11 While the CPU is in effect, forthwith report in writing to the Director any changes of ownership, or occupancy of the Property.

Financial Assurance

4.12 The Director has not included in the CPU a requirement that the Owner provide financial assurance to the Crown in right of Ontario.

Part 5: General

5.1 The requirements of the CPU are severable. If any requirement of the CPU or the application of any requirement to any circumstance is held invalid, the application of such requirement to other circumstances and the remainder of the CPU shall not be affected thereby.

5.2 An application under sub section 168.6(3) of the Act to,
a) alter any terms and conditions in the CPU or impose new terms and conditions; or
b) revoke the CPU;
shall be made in writing to the Director, with reasons for the request.

5.3 The Director may alter the CPU under subsections 132(2) or (3) of the Act to change a requirement as to financial assurance, including that the financial assurance may be increased or provided, reduced or released in stages. The total financial assurance required may be reduced from time to time or released by an order issued by the Director under section 134 of the Act upon request and submission of such supporting documentation as required by the Director.

5.4 Subsection 186(3) of the Act provides that non-compliance with the requirements of the CPU constitutes an offence.

5.5 The requirements of the CPU are minimum requirements only and do not relieve the Owner from,
a) complying with any other applicable order, statute, regulation, municipal, provincial or federal law; or
b) obtaining any approvals or consents not specified in the CPU.

5.6 Notwithstanding the issuance of the CPU, further requirements may be imposed in accordance with legislation as circumstances require. The Director shall also alter the CPU where the approval or acceptance of the Director is required in respect of a matter under the CPU and the Director either does not grant the approval or acceptance or does not grant it in a manner agreed to by the Owner.

5.7 In the event that, any person is, in the opinion of the Director, rendered unable to comply with any requirements in the CPU because of,

a) natural phenomena of an inevitable or irresistible nature, or insurrections,
b) strikes, lockouts or other labour disturbances,
c) inability to obtain materials or equipment for reasons beyond their control, or
d) any other cause whether similar to or different from the foregoing beyond their control,

the requirements shall be adjusted in a manner defined by the Director. To obtain such an adjustment, the Director must be notified immediately of any of the above occurrences, providing details that demonstrate that no practical alternatives are feasible in order to meet the requirements in question.

5.8 Failure to comply with a requirement of the CPU by the date specified does not absolve the Owner from compliance with the requirement. The obligation to complete the requirement shall continue each day thereafter.

Part 6: Hearing before the Environmental Review Tribunal

6.1 Pursuant to section 139 of the Act, you may require a hearing before the Environmental Review Tribunal (the "Tribunal"), if within fifteen (15) days after service on you of a copy of the CPU, you serve written notice upon the Director and the Tribunal.

6.2 Pursuant to section 142 of the Act, the notice requiring the hearing must include a statement of the portions of the CPU and the grounds on which you intend to rely at the hearing. Except by leave of the Tribunal, you are not entitled to appeal a portion of the CPU or to rely on a ground, that is not stated in the notice requiring the hearing.

6.3 Service of a notice requiring a hearing must be carried out in a manner set out in section 182 of the Act and Ontario Regulation 227/07: ***Service of Documents,*** made under the Act as they may be amended from time to time. The address, email address and fax numbers of the Director and the Tribunal are:

The Secretary
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, ON, M5G 1E5
Fax: (416) 314-4506
Email: ERTTribunalSecretary@ontario.ca

and

Dave Fumerton, Director
Ministry of the Environment
230 Westney Road South, 5th Floor
Ajax, ON
L1S 7J5

Fax: 905-427-5602
Email: Dave.Fumerton@ontario.ca

6.4 Unless stayed by application to the Tribunal under section 143 of the Act, the CPU is effective from the date of issue.

6.5 If you commence an appeal before the Tribunal, under section 47 of the Environmental Bill of Rights, 1993 (the “EBR”), you must give notice to the public in the EBR registry. The notice must include a brief description of the CPU (sufficient to identify it) and a brief description of the grounds of appeal.

The notice must be delivered to the Environmental Commissioner of Ontario who will place it on the EBR registry. The notice must be delivered to the Environmental Commissioner at 605-1075 Bay Street, Toronto, Ontario M5S 2B1 by the earlier of:

6.5.1 two (2) days after the day on which the appeal before the Tribunal was commenced; and

6.5.2 fifteen (15) days after service on you of a copy of the CPU.

6.6 Pursuant to subsection 47(7) of the EBR, the Tribunal may permit any person to participate in the appeal, as a party or otherwise, in order to provide fair and adequate representation of the private and public interests, including governmental interests, involved in the appeal.

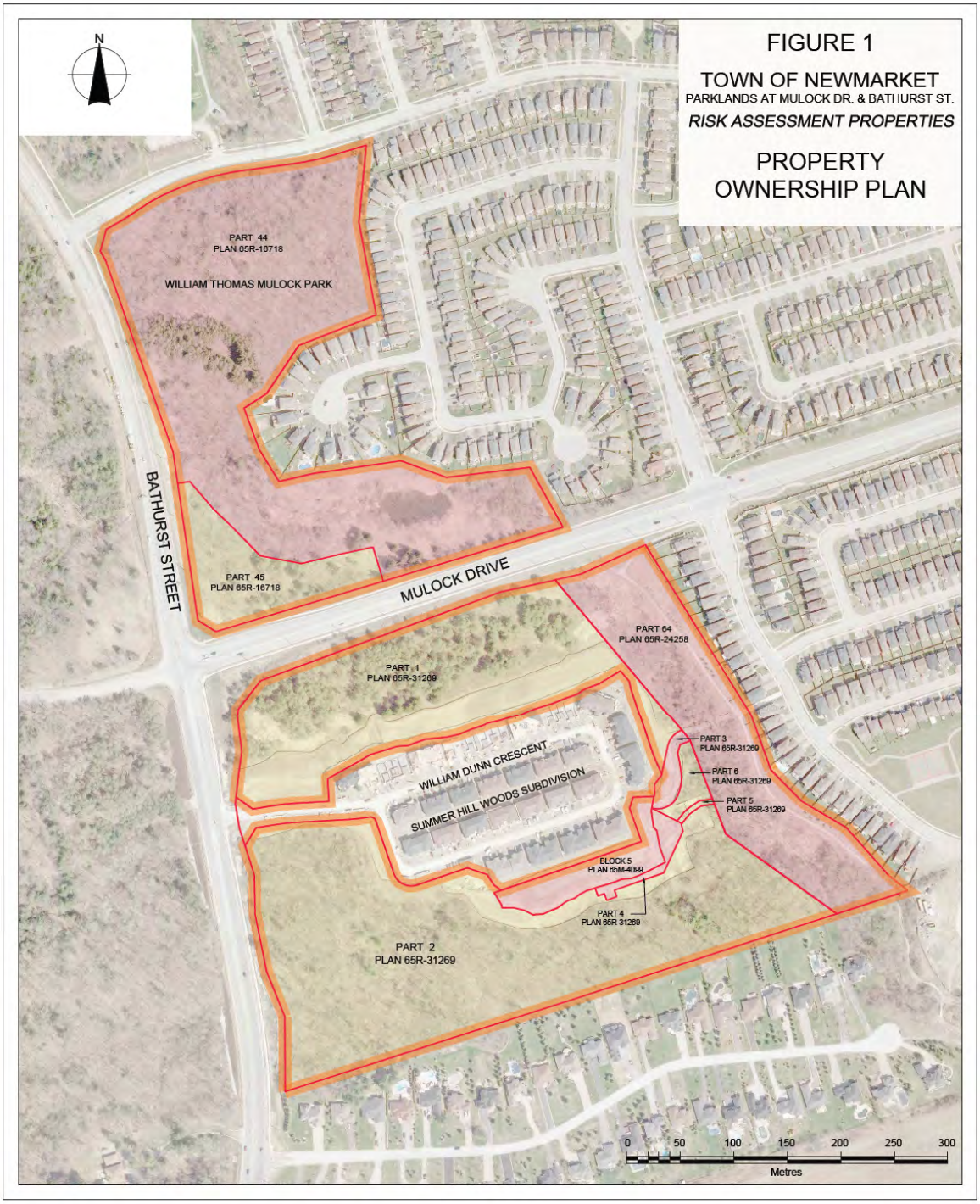
6.7 For your information, under section 38 of the EBR, any person resident in Ontario with an interest in the CPU may seek leave to appeal the CPU. Under section 40 of the EBR, the application for leave to appeal must be made to the Tribunal by the earlier of:

6.7.1 fifteen (15) days after the day on which notice of the issuance of the CPU is given in the EBR registry; and

6.7.2 if you appeal, fifteen (15) days after the day on which your notice of appeal is given in the EBR registry.

Issued at Ajax this 22nd day of June, 2012.

Dave Fumerton,
Director, section 168.6 of the Act



LEGEND

- PROPERTY BOUNDARIES
- RISK ASSESSMENT BOUNDARY
- LANDS OWNED BY CORPORATION OF THE TOWN OF NEWMARKET
- LANDS OWNED BY CRITERION DEVELOPMENT CORPORATION (TO BE CONVEYED TO THE TOWN OF NEWMARKET)

NOTE:
THE RIGHT OF WAY FOR BATHURST STREET AND MULOCK DRIVE IS OWNED BY THE REGIONAL MUNICIPALITY OF YORK

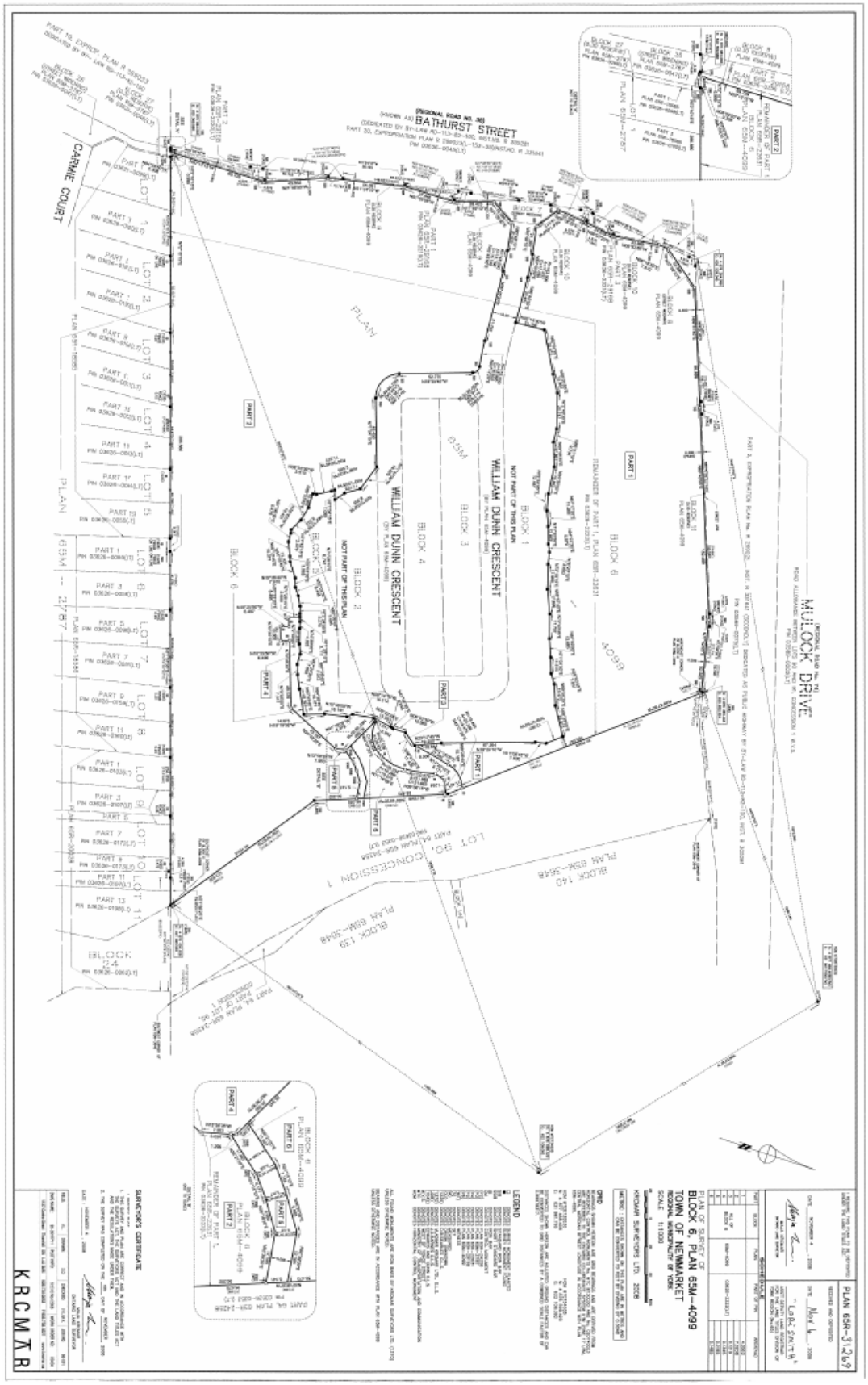
Image Source:
Background 2009 colour air photos obtained from First Base Solutions Inc.

Scale 1:3,500
March 2012
Project Number: D24650
Projection: UTM Zone 17
Datum: NAD83
Prepared by: C. Sheppard
Verified by: J. Walls

BURNSIDE

246500 RISK ASSESSMENT PROPERTY OWNERSHIP PLAN.dwg

Schedule 'A': Figure 2



Schedule 'B'
Property Specific Standards

Environmental Media	Contaminants of Concern (COC)	Property Specific Stratified Soil Standards (µg/g)	Property Specific Groundwater Standards (µg/L)
Groundwater	Barium		1000
Groundwater	Lead		10
Groundwater	Chloride		790,000
Groundwater	Sodium		41,000
Soil	Arsenic	58	
Soil	Boron	1.5	
Soil	Lead	460	
Soil	Dichlorodiphenyldichloroethane (DDD)	0.026	
Soil	Dichlorodiphenyldichloroethylene (DDE)	0.48	

B-2
SITE ACCESS CONTROL PLAN

Appendix B-2: Site Access Control Plan

The topsoil in the forested areas around the Summerhill Woods development in Newmarket, Ontario located at the southeast corner of Bathurst Street and Mulock Drive (Figure 1 of the Report) contained arsenic at concentrations exceeding the Ministry of the Environment (MOE) Site Condition Standards for residential and parkland land uses (Soil Engineers 2007). Arsenic impacts were confirmed to the north and east of the Summerhill Woods development, immediately south of the entrance to Summerhill Woods development (named William Dunn Crescent) at Bathurst Street and in the forested lands north of Mulock Drive (Figure 2). For the purpose of this plan, the contaminated lands are referred to as the Subject Property. There was no evidence of impacts within the mature, undisturbed, natural woodlot south of the development, although this land is included within the Subject Property boundaries.

A risk assessment (Intrinsik 2011) was conducted to assess the risk represented by contaminants in soil on possible human and ecological receptors that may be present at the Subject Property. Human receptors included a long-term outdoor maintenance worker, a resident and a parkland visitor. Ecological receptors included grasses, shrubs, trees, soil invertebrates (e.g., earthworms), small mammals and birds.

The risk assessment included assumptions that recognized that beyond the hard surface of the walking trail, the Subject Property consists of rugged natural forest with no defined access. The area on either side of the walking trail is approximately 2 m of slash-back that tends to become thickly vegetated with tall grasses and herbaceous plants over the summer. The conditions represent limited opportunity for people to access the Subject Property and spend significant time away from the walking trail. For plants and animals, it was recognized that the occurrences of high concentrations of contaminants were few compared to the number of sampling points and these localized risks to plants and animals were not anticipated to result in unacceptable risks. The site conditions result in limited potential for exposure to on-site contaminants and were considered protective of human and ecological receptors.

Remediation was undertaken in six areas where the concentrations of contaminants exceeded the Property Specific Standards (Table B-1) developed through the risk assessment. This action effectively eliminated the potential for exposure to site visitors or maintenance workers to soils that might cause unacceptable health risks in a mature forested area. Therefore, provided access to the Subject Property is limited (e.g., infrequent walking without disturbance of the underlying soil), no physical risk management measures are required to maintain an acceptable level of risk for human and ecological receptors.

The Site Access Control Plan is summarized as follows:

- The fences at the backs of residences between the Subject Property and the 30 m wide buffer area are to be maintained to inhibit access to the Subject Property by residents. A Town of Newmarket by-law prohibiting the installation of gates in these fences shall be strictly enforced.
- The area on either side of the walking trail may be mowed to control encroachment of vegetation into the trail; however, this slash-back shall be a maximum of 2 m wide. Grass or other herbaceous cover over the slash-back is to be maintained.
- The existing park and woodland areas are to remain unchanged and there shall be no construction of subsurface utilities or active recreation facilities within the Subject Property.
- If natural vegetation proves to be insufficient in the deterrence of access to the Subject Property beyond the John F. Smith trail, additional measures shall be implemented.

These measures can include vegetation that discourages access (e.g., thorny bushes), landscape features such as boulders, additional fencing or signage. The measure should be appropriate for the area and the level of access.

Table B-1: Property Specific Standards (PSS) for Contaminants of Concern in Soil

Contaminant	Soil PSS (µg/g)
Arsenic	58
Boron	1.5
DDD	0.026
DDE	0.48
Lead	460

B-3
SITE INSPECTION FORM

Appendix B-3: Soil Management Plan Outline

The topsoil in the forested areas around the Summerhill Woods development in Newmarket, Ontario located at the southeast corner of Bathurst Street and Mulock Drive (Figure 1 of the Report) contained arsenic at concentrations exceeding the Ministry of the Environment (MOE) Site Condition Standards for residential and parkland land uses (Soil Engineers 2007). Arsenic impacts were confirmed to the north and east of the Summerhill Woods development, immediately south of the entrance to Summerhill Woods development (named William Dunn Crescent) at Bathurst Street and in the forested lands north of Mulock Drive (Figure 2). For the purpose of this plan, the contaminated lands are referred to as the Subject Property. There was no evidence of impacts within the mature, undisturbed, natural woodlot south of the development, although this land is included within the Subject Property boundaries.

Beyond the hard surface of the walking trail, the Subject Property consists of rugged natural forest with no defined access. The area on either side of the walking trail is approximately 2 m of slash-back that tends to become thickly vegetated with tall grasses and herbaceous plants over the summer. A risk assessment (Intrinsik 2011) was conducted to assess the risk represented by contaminants in soil on possible human and ecological receptors that may be present at the Subject Property. Human receptors included a long-term outdoor maintenance worker, a resident and a parkland visitor. Ecological receptors included grasses, shrubs, trees, soil invertebrates (e.g., earthworms), small mammals and birds.

Remediation was undertaken in six areas where the concentrations of contaminants exceeded the Property Specific Standards (Table B-1) developed through the risk assessment. This action effectively eliminated the potential for exposure to site visitors or maintenance workers to soils that might cause unacceptable health risks in a mature forested area.

Table B-1: Property Specific Standards (PSS) for Contaminants of Concern in Soil

Contaminant	Soil PSS (µg/g)
Arsenic	58
Boron	1.5
DDD	0.026
DDE	0.48
Lead	460

The Certificate of Property Use (CPU) (Appendix B-1) dictates restrictions on land use and prohibits the construction of subsurface utilities or structures. There should not be regular site activities that will disturb the soil underlying the forest cover. Surface activities such as maintenance of vegetation or site inspections will not require a soil management plan. The site inspection report form indicates this.

The contaminants are adhered to the soil and dust generated from the soil. If activities are planned that will disturb the site soils, a soil management plan must be prepared under the guidance of a Qualified Person as defined in Ontario Regulation 153/04 made under the *Environmental Protection Act*. The soil management plan must include the following:

- Site investigations to confirm soil quality in the area of the proposed work. The results of the investigation will provide direction on the suitability of soil to remain on site or the need for offsite management of soil;
- Dust control measures to prevent the tracking of soil beyond the contaminated area;

- Management of excavated soil and equipment that comes in contact with it to control the spread of contaminants beyond the Subject Property; and
- Record keeping of site activities.

Site specific information that will define the content of the soil management plan should include the following sections and information:

Site Preparation

Include a description of any site activities that may be required to prepare the area for soil excavation, such as clearing of vegetation, and installation of fencing or erosion controls.

Soil Management

Include a description of investigations conducted to determine soil quality in the area of the work and provide details on how the soil will be managed onsite and off. If soil will be placed in stockpiles, confirm the protocols to control the release of dust or sediment from stockpiles, including the control of surface water runoff and prevention of discharges to sewers. In general, stockpiles should be placed in a dedicated area surrounded by a berm that is lined with poly sheeting and fenced to prevent access. Stockpiles should be covered at the end of each working day.

Import Material

If soil is required to replace excavated material, this section should confirm the accepted quality of any fill that will be imported. Details should be provided as to the type of sampling that will be required for the replacement material and tracking measures that will be used to maintain quality.

Spill Response

The contractor should be required to maintain spill response measures for the equipment that will be within their control during the work. This section should reference legislative and project reporting requirements in the event of a spill.

Dust and Air Quality

Dust control measures should be implemented by the contractor, to ensure that excessive dust is not generated during soil excavation. The level of the control measures will be guided by the extent of the planned excavation and the concentrations of contaminants. Measures should ensure that nuisance levels of dust do not migrate beyond the area of work.

Remedial Action Plan

If the initial investigation identified the need for remediation (i.e., offsite management of soil), details of the remediation should be provided in the soil management plan.

Worker Health and Safety

The soil management plan should outline the considerations that will go into a separate health and safety plan developed by the contractor for its employees. Appendix B-4 provides details of health and safety plan requirements, but in general, it must include hygiene for site workers, personal protection equipment, emergency contingency plans and contact information for site workers.

B-4
HEALTH AND SAFETY PLAN REQUIREMENTS

Appendix B-4: Health and Safety Plan Requirements

The topsoil in the forested areas around the Summerhill Woods development in Newmarket, Ontario (located at the southeast corner of Bathurst Street and Mulock Drive (Figure 1 of the Report)) contained arsenic at concentrations exceeding the Ministry of the Environment (MOE) Site Condition Standards for residential and parkland land uses (Soil Engineers 2007). Arsenic impacts were confirmed to the north and east of the Summerhill Woods development, immediately south of the entrance to Summerhill Woods development (named William Dunn Crescent) at Bathurst Street and in the forested lands north of Mulock Drive (Figure 2). For the purpose of this plan, the contaminated lands are referred to as the Subject Property. There was no evidence of impacts within the mature, undisturbed, natural woodlot south of the development, although this land is included within the Subject Property boundaries.

A risk assessment (Intrinsik 2011) was conducted to assess the risk represented by contaminants in soil on possible human and ecological receptors that may be present at the Subject Property. Human receptors included a long-term outdoor maintenance worker, a resident and a parkland visitor. Ecological receptors included grasses, shrubs, trees, soil invertebrates (e.g., earthworms), small mammals and birds.

The risk assessment included assumptions that recognized that beyond the hard surface of the walking trail, the Subject Property consists of rugged natural forest with no defined access. The area on either side of the walking trail is approximately 2 m of slash-back that tends to become thickly vegetated with tall grasses and herbaceous plants over the summer. The conditions represent limited opportunity for people to access the Subject Property and spend significant time away from the walking trail.

Remediation was undertaken in six areas where the concentrations of contaminants exceeded the Property Specific Standards (Table B-1) developed through the risk assessment. This action effectively eliminated the potential for exposure to site visitors or maintenance workers to soils that might cause unacceptable health risks in a mature forested area. Therefore, provided access to the Subject Property is limited (e.g., infrequent walking without disturbance of the underlying soil), no physical risk management measures are required to maintain an acceptable level of risk for human and ecological receptors.

Table B-1: Property Specific Standards (PSS) for Contaminants of Concern in Soil

Contaminant	Soil PSS (µg/g)
Arsenic	58
Boron	1.5
DDD	0.026
DDE	0.48
Lead	460

Provided site activities will not disturb the underlying soil (e.g., the soil under the forest ground cover from leaves and other detritus) no site-specific health and safety measures are required. The passive nature of activities such as walk-through site inspections or maintenance of trees through the removal of limbs will not cause unacceptable risk to long-term outdoor maintenance workers from the contaminants that may be present in the soil.

However, if excavation or exposure to site soil is planned for any areas within the Subject Property, the work must be conducted under the guidance and supervision of a Qualified Person registered with the Ministry of the Environment. These types of works may include

erosion protection projects or the installation of fence posts if these become required through monitoring of site conditions. The Qualified Person will assess soil quality in the area of the planned activity (either based on existing data or new investigations) and will require that any contractor or Town employees involved in the disturbance of the soil be covered under a project specific health and safety plan.

The Health and Safety Plan must consider the contaminants and their concentrations as well as the type of work being undertaken. Measures must be identified and implemented that would protect workers from exposure to the contaminants. These would typically consist of administrative requirements to mandate personal hygiene (washing of hands, no chewing or eating on site), personal protection equipment for site workers and standard construction dust control measures.

To comply with the risk management measures accepted by the MOE, the Health and Safety Plan must be prepared by a competent person in accordance with Ontario health and safety regulations and include, but not limited to, occupational hygiene, personal protective equipment, contingency plans and contact information. In addition there is a requirement to abide by general provincial health and safety regulations, for activities associated with a project as defined by the *Occupational Health and Safety Act* and the local Ministry of Labour office must be notified of the proposed activities and site conditions (i.e., the presence of contaminants in soil).

For activities that will be conducted for any excavations into the site, the property owner is required to provide for daily inspections during the project to confirm that the Health and Safety Plan is implemented. Copies of the plan and inspection documentation must be available for review by the Ministry (either Labour or the Environment) upon request.

B-5
INSPECTION AND MAINTENANCE PROGRAM

Appendix B-5: Inspection and Maintenance Program

The topsoil in the forested areas around the Summerhill Woods development in Newmarket, Ontario located at the southeast corner of Bathurst Street and Mulock Drive (Figure 1 of the Report) contained arsenic at concentrations exceeding the Ministry of the Environment (MOE) Site Condition Standards for residential and parkland land uses (Soil Engineers 2007). Arsenic impacts were confirmed to the north and east of the Summerhill Woods development, immediately south of the entrance to Summerhill Woods development (named William Dunn Crescent) at Bathurst Street and in the forested lands north of Mulock Drive (Figure 2). For the purpose of this plan, the contaminated lands are referred to as the Subject Property. There was no evidence of impacts within the mature, undisturbed, natural woodlot south of the development, although this land is included within the Subject Property boundaries.

A risk assessment (Intrinsik 2011) was conducted to assess the risk represented by contaminants in soil on possible human and ecological receptors that may be present at the Subject Property. Human receptors included a long-term outdoor maintenance worker, a resident and a parkland visitor. Ecological receptors included grasses, shrubs, trees, soil invertebrates (e.g., earthworms), small mammals and birds.

The risk assessment included assumptions that recognized that beyond the hard surface of the walking trail, the Subject Property consists of rugged natural forest with no defined access. The area on either side of the walking trail is approximately 2 m of slash-back that tends to become thickly vegetated with tall grasses and herbaceous plants over the summer. The conditions represent limited opportunity for people to access the Subject Property and spend significant time away from the walking trail.

Remediation was undertaken in six areas where the concentrations of contaminants exceeded the Property Specific Standards (Table B-1) developed through the risk assessment. This action effectively eliminated the potential for exposure to site visitors or maintenance workers to soils that might cause unacceptable health risks in a mature forested area. Therefore, provided access to the Subject Property is limited (e.g., infrequent walking without disturbance of the underlying soil), no physical risk management measures are required to maintain an acceptable level of risk for human and ecological receptors.

Table B-1: Property Specific Standards (PSS) for Contaminants of Concern in Soil

Contaminant	Soil PSS (µg/g)
Arsenic	58
Boron	1.5
DDD	0.026
DDE	0.48
Lead	460

The Certificate of Property Use (CPU) (Appendix B-1) requires that an inspection and maintenance program be implemented for the Subject Property. The objective of the inspection and maintenance program is to monitor the effectiveness of the risk management measures that are in place for the Subject Property. The risk assessment considered that the Subject Property would be maintained in a natural state that would not require extensive maintenance of the grounds. These assumptions are reflected in the risk management measures that include:

- Continuing to use the lands for passive natural parkland with no utilities or park features such as sports fields installed that would encourage accessing the site. This measure

requires that the zoning remain as Oak Ridges Moraine Environmental Protection. It also intends that vegetation be left in a natural state with only limited forest maintenance provided by workers.

- Maintenance of natural dense vegetation and other access controls (boulders, dense vegetation or fences and the prohibition of gates in the fences) that deter frequent and repeated access to the Subject Property beyond the paved walking trail.
- Limitations on any future activities on the site that would damage the forest cover, now that remediation has been completed.
- Limiting the slash back along the paved trail to no more than 2 m in width.

The inspection and maintenance program will therefore consist of an inspection of trail and perimeter slash back and buffer areas and fencing conditions behind the properties along William Dunn Crescent to ensure that the risk management measures remain in place. For the first two years (starting in fall 2013), inspections must be conducted twice per year. After two years (starting in 2016), the frequency can be reduced to once per year, if all aspects of the risk management measures remain effective and approval is obtained from the Director of the MOE.

As part of the inspection and maintenance program, the owner of the property must maintain a record of any enhancements to the risk management measures that were implemented to control access to the property. In the case of the Town of Newmarket, these records should be maintained in standard site maintenance files maintained by the Public Works Services Department as well as a site specific file that contains information related to the Summerhill Woods lands. The maintenance of the information in electronic format is acceptable.

B-6
SITE INSPECTION AND ACTIVITIES FORM

NEWMARKET RISK MANAGEMENT PROGRAM

SITE INSPECTION AND ACTIVITY REPORT

Site Name:		**Reference No.:**	
Location:		**Date of Visit:**	
		Weather:	
		Report No.:	
		Date of Report:	

Distribution:			
(Name and affiliation)			
			Page 1 of __

Site inspection is required to confirm that the risk management measures implemented as part of the Site Access Control Plan are effective at discouraging public access beyond the John F. Smith Trail. Site activities that may disturb site soil must be recorded so that documentation of activities can be provided to Provincial Inspectors if requested. This form can be used to document either an inspection or the undertaking of activities that will disturb site soil.

The site inspection visit and site activities that do not involve disturbing site soil do not require any special health and safety or soil management processes. For site inspections, record any evidence that indicates human use of the lands (weathered trails, damaged vegetation). If there is no evidence of access by people, record the site conditions. Attach photographs and diagrams to support the descriptions provided in this inspection report.

If this form is used to document site activities, additional information related to soil management and health and safety will be required, in accordance with the Certificate of Property Use and other risk management measures documentation.

Observations:

(use additional pages as required)

Prepared by: _____

Title: _____

APPENDIX C – STANDARD LIMITATIONS

STANDARD LIMITATIONS
PHASE II ENVIRONMENTAL SITE ASSESSMENT (PHASE II ESA)

These Standard Limitations form part of the Report to which they are appended and any use of the Report is subject to them.

1. EXCLUSIVE USE BY CLIENT

This Report was prepared for the exclusive use of the client identified as the intended recipient. Any use of the report by any other party without the written consent of MMM Group Limited is the sole responsibility of such party. MMM Group Limited accepts no responsibility for damages that may be suffered by any third party as a result of decisions made or actions taken based on this Report.

2. SCOPE, TERMS AND CONDITIONS OF CONTRACT

The observations and investigations (hereinafter referred to as the "Work") upon which this Report is based were carried out in accordance with the scope, terms and conditions of the contract or the proposal pursuant to which the Work was commissioned. The conclusions presented in the Report are based solely upon the scope of services described in the contract or the proposal and governed by the time and budgetary constraints imposed by them.

3. STANDARD OF CARE

The Phase II ESA was carried out in accordance with generally accepted environmental study and/or professional practices, industry standards and applicable environmental regulations. No other warranties are either expressed or implied with respect to the professional services provided under the terms of the contract or proposal and represented in this Report.

4. SCOPE OF THE PHASE II ESA

A Phase II ESA is conducted to obtain information about environmental conditions in the land or water on, in or under the subject property. This Report has been prepared based on information obtained at discrete borehole, test pit, monitoring well, or other (e.g., surface water) sampling locations. The conditions reported herein were those encountered at the subject property at the time the Work was performed and as present at the discrete sampling locations. Conditions between sampling locations may be different than those encountered at the sampling locations and MMM Group Limited is not responsible for such differences.

5. REASONABLE CONCLUSIONS

The conclusions of the Phase II ESA regarding the environmental conditions at the subject property are based on the investigations conducted during the Work and information from other sources as may be indicated in the Report. The accuracy of information from other sources was not verified unless specifically noted in the Report, nor was it determined if the reviewed information constituted all information that exists and pertains to the subject property.

The conclusions made are based on reasonable and professional interpretation of the information considered. If additional information concerning environmental conditions of relevance to this Report is obtained during future work at the subject property, MMM Group Limited should be notified in order that we may determine if modifications to the conclusions presented in this Report are necessary.

6. REPORT AS A COMPLETE DOCUMENT

This Report must be read as a whole and sections taken out of context may be misleading. If discrepancies exist between the preliminary (draft) and final versions of the Report, the final version of the Report shall take precedence.

7. LIMITATION OF LIABILITY

MMM Group Limited's liability with respect to the Phase II ESA is limited to re-performing, without cost, any part of the Work that is unacceptable solely as a result of failure to comply with industry standards. MMM Group Limited's maximum liability is limited in accordance with terms in the original contract, provided that notice of claim is made within regulated timelines as of the date of delivery of the Report.