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REPORT

Spring 2013 Semi-Annual Monitoring Report

Waste Management of Canada
Richmond Landfill
Town of Greater Napanee, Ontario

Submitted to:

WASTE MANAGEMENT OF CANADA
1271 Beechwood Road
Napanee, ON K7R 3L1

Submitted by:

WESA, a division of BluMetric Environmental Inc.
The Tower, The Woolen Mill
4 Cataraqui Street
Kingston, ON K7K 1Z7

July 2013
WESA Project No.: K-B11166-00-02

SPRING 2013 SEMI-ANNUAL MONITORING REPORT

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TOWN OF GREATER NAPANEE, ONTARIO

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1. INTRODUCTION

The purpose of this document is to present results and to provide an interpretation of the data that were collected during the spring 2013 semi-annual monitoring event at the Waste Management of Canada Corporation (WM) Richmond Landfill.

The WM Richmond Landfill is approved as a 16.2 hectare waste disposal (landfilling) facility within a total site area of 138 hectares, located on parts of Lots 1, 2 and 3, Concession IV of the former Township of Richmond, now in the Town of Greater Napanee, Ontario.

2. MONITORING PROGRAM

2.1 PROGRAM METHODOLOGY

The spring 2013 semi-annual monitoring event was conducted in accordance with Environmental Compliance Approval (ECA) number A371203, issued by MOE January 9, 2012 and amended May 3, 2013. The site layout and monitoring locations are shown on Figure 1. The monitoring programs for groundwater, surface water, leachate, and landfill gas are summarized in Table 1.

The spring monitoring event was conducted between April 19 and 26, 2013. The activities completed included:

- Water levels were recorded at groundwater monitoring wells on April 19, 2013, except from groundwater monitors OW57 (damaged) and M28 (missed);
- Pond water levels were measured on April 19, 2013 at the three ponds on the south side of the landfill;
- Leachate samples were collected from the North Chamber and South Chamber on April 26, 2013, and analyzed for the suite of groundwater inorganic and general parameters, VOCs, and PAHs;
- Eight off-site domestic water supply wells were sampled on April 25, 2013. Water samples from private supply wells were analyzed for groundwater inorganic and general parameters, and VOCs;
- A total of 44 groundwater monitors were sampled between April 23 and 26, 2013 (with the exception of M107 which was sampled June 20, 2013). Monitoring well M75 was sampled despite integrity concerns due to the presence of bentonite fines in the purge water. Four groundwater monitoring wells could not be sampled because they (a) had insufficient recovery for sampling after purging (M29, M39 and M46-1), or (b) were damaged (the standpipe in M58-4 was broken below the ground surface and contained

bentonite). Samples were analyzed for the suite of groundwater inorganic and general parameters, and VOCs;

- Surface water sampling was conducted on April 26, 2013 from locations S2, S3, S4R, S5, S6, S7 and S8R. Surface water samples were analyzed for the surface water inorganic and general parameters, and PAHs;
- Landfill gas monitoring was conducted on April 24, 2013. Field measurements were made with a RKI Eagle probe calibrated to methane gas response at six gas monitors (GM1, GM3, GM4-1, GM4-2, GM5 and GM6); and,
- Additionally, six field duplicate samples, two field blanks, and one trip blank were collected during the spring sampling event, for a total of nine Quality Assurance/Quality Control (QA/QC) samples. Deionised water for analysis of blank samples was supplied by the laboratory.

As per Further Interim Minutes of Settlement, arising from the Environmental Review Tribunal (ERT) proceedings associated with the closure of the WM Richmond Landfill, selected groundwater monitoring wells and the eight off-site domestic water supply wells were also analyzed for 1,4-dioxane and tritium. This additional sampling took place between April 24 and May 2, 2013 (with the exception of 1,4-dioxane at M9-3 and 1,4-dioxane and tritium at M82-1 which were sampled on June 20, 2013).

2.2 Water/Leachate Sample Collection and Laboratory Analysis

Groundwater and surface water samples were collected in accordance with accepted industry protocols. Groundwater samples were collected using dedicated Waterra inertial lift pumps connected to dedicated polyethylene tubing. Three casing volumes of water were purged from each monitoring well prior to the collection of groundwater samples. During purging, readings for pH, conductivity and temperature were recorded on a regular basis. The stabilization of the parameters was used to assess when well purging was complete. Low producing wells were purged dry and allowed to recover prior to sampling. If the monitoring well had not recovered sufficiently for sampling within 24 hours, the monitor was considered dry and a sample was not collected.

Domestic supply wells were sampled at an access point before any treatment system. A typical sampling location was a tap or access located near the pressure tank or when access to the treatment system was not available, the sample was collected from the kitchen tap (with the aerator screen removed). Prior to collecting the water sample, the water was allowed to run for a minimum of five but more typically closer to 10 minutes to ensure the volume of the pressure tank and supply line was purged and that the sample would be representative of well water conditions.

Surface water samples were collected using a clean bottle where water depth was sufficient; at sampling locations where water depth was an issue, a 50 cc syringe was used to carefully collect the surface water as not to disturb the bottom sediments. Surface water sampling locations were sampled from downstream to upstream to prevent any re-suspension of sediment impacting the downstream sampling locations. The pH, temperature, and conductivity of the surface water were obtained in the field at all surface water sampling points while minimizing disturbance of the bottom sediment.

Leachate samples were collected from the North Chamber and South Chamber collection sumps. The North Chamber sample was collected by lowering a 20L bucket into the vault allowing it to fill and then lifting it to surface. The sample was placed in laboratory supplied preserved bottles by filling one of the non-preserved bottles and carefully decanting into the smaller sampling bottles. The South Chamber sample was collected from the pump out valve system at surface. The flow valve was partially opened to fill one of the non preserved bottles provided by the laboratory, and used to decant into the other sampling bottles.

All water/leachate samples were placed in bottles supplied and prepared by the laboratory. The samples were packed in coolers with ice and shipped by courier to the laboratory. All samples were analysed by Maxxam Analytics Inc. of Mississauga, ON, which is accredited by the *Canadian Association for Laboratory Accreditation Inc. (CALA).* Table 2 presents a summary of groundwater, surface water and leachate analytical parameters.

2.3 GROUNDWATER ELEVATIONS

Prior to collecting groundwater samples, water levels were recorded to the nearest 0.01 m using an electronic water level meter. Table 3 presents groundwater elevation monitoring locations.

3. MONITORING RESULTS AND DISCUSSION

Background information concerning the site geology and hydrogeology was described in detail in the Site Conceptual Model (SCM) report[1], and is summarized here. The SCM report describes the groundwater flow conditions at the Richmond Landfill. Based on the results from extensive studies conducted previously at the site, the basic hydrogeological framework for the facility has been defined as follows:

- the active groundwater flow zone at the site extends to a depth of approximately 30 metres below the top of bedrock;

[1] *Site Conceptual Model Report, WM Richmond Landfill*, prepared by Dr. B.H. Kueper and WESA Inc., October 2009

- the shallow groundwater flow zone is conceptualized as the overburden, the overburden-bedrock contact and the upper one to two metres of bedrock;
- the direction of groundwater flow in the shallow flow zone is strongly influenced by topography;
- the intermediate bedrock flow zone extends from one to two metres below top of bedrock to a depth of approximately 30 metres below top of bedrock;
- groundwater flows through a well-connected network of fractures in the upper 30 metres of bedrock;
- the dominant fracture orientation is horizontal to sub-horizontal; however, vertical to subvertical fractures are present providing hydraulic connection between horizontal fractures;
- hydraulic connection of fractures exists in the intermediate bedrock flow zone to the west, south and east of the site (horizontal and vertical connections);
- intermediate bedrock flownets show that groundwater generally flows to the west from the western edge of the landfill, to the south-southeast from the southern edge of the landfill, to the southwest from the southwest corner of the landfill and north to northwest from the northwest portion of the landfill;
- the hydraulic conductivity of the intermediate bedrock is lower to the north and east of the landfill compared to other areas of the site, implying that the rate of groundwater flow is lower than in areas south, southeast and west of the landfill; and,
- flow directions in the intermediate bedrock zone are variable with season.

3.1 LEACHATE RESULTS

The leachate chemistry results for April 26, 2013 are summarized in Table 4. Leachate at the Richmond Landfill is characterized by elevated concentrations of general water quality parameters such as alkalinity, ammonia, chloride, conductivity, DOC, hardness, sodium and TKN, as well as selected VOCs for both the North and South Chamber samples. In general, the parameters that characterize the leachate are more elevated in the samples collected from the South Chamber compared to the North Chamber.

Two landfill leachate wells, LW-P1 and LW-P2, were installed in May 2013. An evaluation of leachate levels will be included in the Fall 2013 Semi-Annual Monitoring Report as per paragraph 5(k)i of the ERT Minutes of Settlement.

The volume of leachate collected from the landfill and hauled to the Napanee municipal sewer system from January to June 2013 was 11,174 kg.

3.2 GROUNDWATER RESULTS

3.2.1 Groundwater Elevations

Groundwater elevations from program monitoring wells were measured on April 19, 2013 and are presented in Table 5. An inventory of monitoring well locations is provided in Appendix A. Groundwater elevation contours within the shallow and intermediate bedrock groundwater flow zones are shown on Figures 2 and 3, respectively. Groundwater flow directions were inferred by interpolating the hydraulically responsive wells screened within the corresponding groundwater flow zone, and are consistent with historical results.

The spring 2013 shallow groundwater contours (Figure 2) are consistent with historical results and shows that the Empey Hill drumlin southwest from the landfill creates a flow divide with shallow groundwater being directed both to the north and the south. The northerly flowing groundwater is oriented toward Marysville Creek, while shallow groundwater to the south flows towards Beechwood Ditch. Shallow groundwater south of Beechwood Road flows locally to the north-northwest, towards an area of lower hydraulic head that may be influenced by the pond system in the south part of the site (see Figure 2). Shallow groundwater east of the landfill is influenced by a local zone of higher water levels in the vicinity of monitoring well M96. Shallow groundwater north of M96 flows to the north while groundwater south of M96 flows to the south-southeast.

The spring 2013 intermediate bedrock zone contours are presented on Figure 3. Water levels from intermediate bedrock monitors identified as non-responsive, including M49-2, M52-1, M70-1, OW1 and OW4, were not used to prepare the spring 2013 groundwater contours. The wells were excluded from the interpolation on the basis that water levels were not static, believed to be recovering from past sampling events or seasonal variations. Groundwater in the intermediate bedrock flow zone generally flows to the north, west, and south relative to the landfill. Overall, the directions of groundwater flow within the intermediate flow zone are consistent with the regional directions of groundwater flow, towards the south.

3.2.2 Groundwater Analytical Results

Results from the groundwater monitoring wells sampled in spring 2013 are presented in Table 6a. Groundwater quality data for the spring 2013 monitoring event are similar to historical results, and discussed in this section.

Slightly elevated concentrations of a number of water quality parameters (e.g., alkalinity, chloride, conductivity, DOC, iron, manganese, sodium and/or TDS) were observed in some shallow groundwater zone monitoring wells located in close proximity to the landfill footprint (M41 to the south; M101 and M103 to the northwest). All VOCs were below the laboratory reporting limit, with the exception of the following low but detectable concentrations:

- 1,1-dichloroethane at M41 and M101;
- 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethylene, cis-1,2-Dichloroethylene, tetrachloroethylene, trichloroethylene and vinyl chloride at M54-4; and,
- Toluene at M67-2.

In other areas of the site, there is no evidence of groundwater impacts away from the landfill footprint in the shallow groundwater flow zone. Isolated occurrences of elevated concentrations of water quality parameters (i.e., one or two parameters per sample) are seen elsewhere on the Site. No indications of elevated concentrations related to impacts are identified at the property boundary in the shallow flow zone.

Analytical results from intermediate bedrock groundwater monitors sampled in spring 2013 are generally consistent with historical results. North of the landfill, elevated concentrations of water quality parameters are noted at M6-3 and OW4, which are in close proximity to the footprint. These results indicate the presence of leachate impacts at these locations. However, further north of the footprint and along Marysville Creek (e.g., at M5-3, M75, M82-1, M82-2 and OW1), as well as north of the creek at M59-2, M59-3 and M59-4, the concentrations are lower and impacts from the landfill are not evident.

South of the landfill, slightly elevated concentrations of alkalinity, DOC, chloride and TDS at M71, M10-1 and M105 indicate potential impacts from the landfill. Other locations south and southeast of the landfill with elevated concentrations (e.g., M49-1, M49-2 and M70-1) represent areas where the deeper saline groundwater is affecting the water quality. These pockets of more saline groundwater are isolated and do not reflect any widespread or significant upwelling of saline groundwater.

Elsewhere to the west (M58-3, M72, M74, M91-1 and M95-1), southwest (M56-2 and M80-1) and east (M52-1) of the landfill, the concentrations of water quality parameters are relatively low and continue to reflect background conditions.

VOCs were below the laboratory reporting limit at most intermediate bedrock monitors, with the exception of select VOCs such as 1,1-dichloroethane, 1,1-dichloroethylene, 1,3,5-trimethylbenzene, chloroethane, vinyl chloride and/or BTEX, which were detected at the following locations: M5-3, M6-3, M9-3, M10-1, M49-2, M52-1, M59-4, M70-1, M71, M75, M80-1, M91-1, M105, M107, OW1 and OW4.

Alkalinity and ammonia results for the EMP wells, as well as 1,4-dioxane and tritium results for monitoring wells that were agreed to be sampled as part of the ERT mediation process[2], are shown for the shallow and intermediate bedrock flow zones on Figures 4 and 5, respectively.

Monitoring wells M41, M54-4, M101, M102 and M103 in the shallow groundwater flow zone were analyzed for 1,4-dioxane and tritium. Detectable concentrations of 1,4-dioxane were reported for monitors M41 and M101 (0.0019 to 0.0025 mg/L) and M103 (0.022 mg/L). Tritium concentrations ranged from 12.6 Tritium Units (TU)[3] at M54-4 to 42.3 TU at M103. The background concentration of tritium in the groundwater is approximately 25 TU.

Monitoring wells M6-3, M9-3, M10-1, M49-2, M52-1, M59-2, M71, M75, M105, M107, OW1 and OW4 in the intermediate groundwater flow zone were analyzed for 1,4-dioxane and tritium in accordance with the ERT Minutes of Settlement. Detectable concentrations of 1,4-dioxane were reported for monitors M10-1, M71, M105 and M107 south of the landfill (0.0138 to 0.0274 mg/L), and M6-3 and OW4 north of the landfill (0.119 to 0.134 mg/L). Tritium concentrations were within the background concentration at monitors M49-2, M52-1, M75, OW1, M9-3 and M59-2. Tritium concentrations ranged from 25 to 37.2 TU at monitors M10-1, M105, M107 and M71. Concentrations of tritium were highest at monitors OW4 (187.5 TU) and M6-3 (572.4 TU) located north of the landfill.

A detailed investigation to further define and delineate potential impacts from the landfill and other contaminant sources is underway at the site, and involves several other monitoring locations not included in the EMP (and hence not reported herein). The results of this investigation will be reported in a separate document in accordance with the ERT Order issued on April 26, 2013.

3.2.3 Guideline B-7 Reasonable Use Limits (RULs)

Selected monitoring wells within the low-head areas (downgradient flow locations) of the WM Richmond Landfill in both the Shallow and Intermediate Bedrock Flow Zones are compared to the RULs derived from laboratory analytical results (Table 6b). Proposed RULs for leachate indicator parameters and trigger monitors were presented in the EMP dated June 29, 2010. These will be re-examined as part of ongoing investigations, but are used here on an interim basis.

[2] Tritium and 1-4-dioxane results for monitoring well M82-1, and 1,4-dioxane results for monitoring well M9-3 were not available at the time of reporting.

[3] 1 TU = 3.221 Picocurries/L
1 TU = 0.11919 Becquerels/L

Slightly elevated concentrations of a number of inorganic or general water quality parameters (e.g., alkalinity, chloride, chromium, DOC, iron, manganese, sodium and/or TDS) were observed in shallow groundwater zone monitoring wells (M54-4, M66-2, M67-2, M80-2, M87-2 and OW37-s).

Slightly elevated concentrations of a number of water quality parameters (e.g alkalinity, boron, chloride, DOC, iron, manganese, sodium, TDS and/or benzene) were observed in some intermediate groundwater zone monitoring wells (M10-1, M49-1, M56-2, M70-1, M80-1, M82-1, M82-2 and M107). All VOCs were below the respective RULs, with the exception of benzene for monitoring wells M70-1 and M80-1.

3.2.4 Status of Monitoring Wells and Compliance with Ontario Regulation 903

During the spring 2013 monitoring event, the conditions of monitoring wells were inspected. Any repairs, such as new locks, labels or well caps, etc. were made as necessary. Watertight casings and seals remain in place at all monitors to ensure that surface water or foreign materials do not infiltrate the wells. The monitoring wells comply with the applicable sections of Ontario Regulation 903 relevant to "test holes" as defined in the regulation, as well as the overall intent of the regulation to protect groundwater supplies. With the exception of monitors M19, M58-4 and OW57 (damaged) as well as M75 (integrity of the bentonite seals in monitors suspect due to the presence of bentonite in purge water), all of the monitoring wells included in the EMP are currently active. It is recommended that these wells are decommissioned as they cannot be repaired.

3.2.5 Off-Site Domestic Water Supply Well Results

Results from off-site private water supply wells sampled in spring 2013 are presented in Table 7.

Comparison with Ontario Drinking Water Quality Objectives and Guidelines (ODWSOG, 2006) revealed all parameters were below their respective maximum acceptable concentrations (MAC) or interim maximum acceptable concentrations (IMAC) as specified in Table 2 of the ODWSOG, with the exception of lead at 1181 Beechwood Road and 1206 Beechwood Road (0.01 mg/L and 0.034 mg/L, respectively). Some inorganic parameters (alkalinity, chloride, DOC, hardness, iron, manganese, sodium and TDS) were measured at concentrations exceeding their respective aesthetic objective (AO) or operational guideline (OG) from Table 4 of the ODWSOG.

As was the case in previous sampling events, most volatile organic compounds (VOCs) in off-site supply wells were reported below the laboratory reporting limit (RL) at all locations, with the exception of some VOCs that were detected in measurable quantities above the RL at some locations. In all cases, VOC concentrations were below the MAC or AO.

The moderate mineralization observed at the private water supply wells sampled (elevated hardness, TDS and sodium) is consistent with the local hydrogeological setting (carbonate aquifer with documented saline groundwater at depth). The origin of the elevated concentration of some dissolved metals (iron, manganese) and DOC at some locations is currently under investigation.

All off-site private water supply wells were also analyzed for 1,4-dioxane and tritium. Alkalinity, ammonia, 1,4-dioxane and tritium results are shown on Figure 6. Detectable concentrations of 1,4-dioxane were reported for 1144 Beechwood Road, 1181 Beechwood Road, 1206 Beechwood Road and 1250 Beechwood Road (0.002 to 0.0071 mg/L), and 1252 Beechwood Road and 1264 Beechwood Road (0.0143 to 0.0178 mg/L). Tritium concentrations ranged from 12.5 TU at 1121 Beechwood Road to 35.5 TU at 1206 Beechwood Road.

The detected concentrations of VOCs and tritium, as well as the general and inorganic parameters, indicate potential impacts from contaminant source(s) at the following locations: 1144, 1181, 1206, 1250, 1252 and 1264 Beechwood. The sources may include one or more of the following: the landfill, the former abattoir, surface water infiltration, sewage systems, livestock and agricultural activities and the deep saline groundwater. Further investigation is ongoing in the area to better define the various sources of impact south of the landfill.

3.2.6 Groundwater Chemistry Quality Assurance / Quality Control (QA/QC)

An evaluation of the QA/QC data (from duplicate and blank samples) is included in Appendix B, where analytical results are compared between regular samples and their corresponding field duplicate samples, submitted to the laboratory without identifying the location they were collected from. A standard margin of error of 20% (relative percent difference (RPD) between regular sample and duplicate) was deemed acceptable for field duplicates. In general, the comparison between samples and duplicates shows very good correlation for the majority of analyzed constituents. All parameters for groundwater duplicate QA/QC sampling were well within the 20% margin of error with the two exceptions as summarized in Appendix B. Both parameters that had RPD greater than 20% were measured at low concentrations (less than 5 times the RDL) and are therefore within acceptable margin of error. All parameters were near or below the RDL in equipment and field blanks.

3.3 SURFACE WATER RESULTS

3.3.1 Pond Elevations

Staff gauges were installed in the three ponds on the south side of the landfill labeled SG1, SG2 and SG3. Staff gauge locations and pond elevations measured April 19, 2013 are shown on Figure 2.

3.3.2 Surface Water Monitoring Locations

The two water courses that may receive surface water/storm water runoff from the Richmond Landfill are Marysville Creek to the north of the waste mound and Beechwood Ditch to the south (Figure 1). The Beechwood Ditch is a man-made surface water course that flows from the east onto WM property. It then flows west across a portion of the site before again crossing Beechwood Road and travelling southwest to cross County Road 10, and joins Marysville Creek east of Highway 49 and north of Highway 401. Both the Beechwood Ditch and Marysville Creek flow intermittently in the vicinity of the landfill. Marysville Creek has some base flow locally, and flows on a continuous basis west of County Road 10 (Deseronto Road). Marysville Creek eventually discharges into the Bay of Quinte at Hungry Bay.

All surface water monitoring locations are shown on Figure 1.

3.3.3 Surface Water Flow Rates

Visual observations of surface water flow and general water characteristics for the spring sampling program are summarized in Table 8. In general, surface water flow rates were variable, ranging from negligible (at S4R) to 0.26 m^3/s (at S6).

3.3.4 Surface Water Analytical Results

The results from the surface water locations sampled in spring 2013 are presented in Table 9, and are similar to historical results.

Surface water quality from samples collected in spring 2013 was compared to the Provincial Water Quality Objectives (PWQO) (see Table 9). Background surface water quality was monitored from upstream station S2 for Marysville Creek, while background surface water quality for Beechwood Ditch was monitored at station S5. Storm water runoff from the existing landfill area flows to one of three storm water sedimentation retention ponds, located to the northeast, northwest and south of the landfill footprint. The retention pond located south of the landfill was reconstructed in 2008 and now has an increased storage volume and, as a result, an increased retention time.

All constituents analysed in surface water samples were below their respective PWQO, with the exception of (a) phosphorus which was detected at concentrations slightly exceeding the PWQO of 0.03 mg/L at upstream and downstream locations in Beechwood Ditch (S5, S4R and S8R), ranging between 0.049 mg/L and 0.089 mg/L; and (b) iron which was detected at a concentration slightly exceeding the PWQO of 0.3 mg/L at upstream location S5 in Beechwood Ditch which was 0.47 mg/L. It is noted that there were no exceedances of any PWQOs in the samples collected along Marysville Creek.

Polycyclic aromatic hydrocarbons (PAHs) were not detected in any of the surface water samples collected from Marysville Creek or from Beechwood Ditch.

Results from spring 2013 indicate that the landfill is not causing adverse impacts to surface water quality.

3.3.5 Surface Water Quality Assurance / Quality Control (QA/QC)

An evaluation of the QA/QC data (from duplicate and blank samples) is included in Appendix B, where analytical results are compared between regular samples and their corresponding field duplicate samples, submitted to the laboratory without identifying the location they were collected from. A standard margin of error of 20% was deemed acceptable for field duplicates. In general, the comparison between samples and duplicates shows very good correlation for the majority of analyzed constituents. All parameters for the surface water duplicate QA/QC sample (location S3) were well within the 20% margin of error, with the exception of Total Kjeldahl Nitrogen (which was measured at low concentrations (less than 5 times the RDL) and are therefore within acceptable margin of error) and Chemical Oxygen Demand.

3.4 SUBSURFACE GAS SAMPLING

On April 24, 2013, WESA inspected the subsurface gas monitoring probes and obtained measurements at all locations. Measurements were made using a GEM2000 portable landfill gas monitor. The location and condition of the gas monitors and the measurement results are shown in Table 10. Readings were reported as the instrument detection limit of 1% of the lower explosive limit (LEL) for methane.

4. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The spring 2013 monitoring program included the collection of groundwater, leachate and surface water samples, as well as landfill gas monitoring, in accordance with the site groundwater monitoring requirements outlined in the revised EMP dated June 29, 2010, as specified in the Environmental Compliance Approval (ECA) issued on January 9, 2012 and amended May 3, 2013. Per the settlement agreement with CCCTE and the ERT Order issued April 26, 2013, the EMP is to be revised upon completion of the investigation that is currently underway at the site.

The following were completed between April 19 and April 26, 2012:

- Water levels were measured from 69 groundwater monitoring wells: 39 in the shallow groundwater flow zone and 30 in the intermediate bedrock flow zone.
- Forty-four groundwater monitors (17 completed in the shallow zone and 27 in the intermediate bedrock) were sampled for analytical testing.
- Eight off-site domestic water supply wells located along Beechwood Road were sampled for analytical testing.
- Seven surface water locations were sampled for analytical testing.
- A total of nine Quality Assurance/Quality Control (QA/QC) samples were collected (six field duplicates, two field blanks and one trip blank).
- Subsurface gas concentrations were recorded from six on-site gas monitoring wells.

4.1 GROUNDWATER

- Groundwater flow directions interpreted from monitors known to be hydraulically active were consistent with historical flownets:
  - o Shallow groundwater flow is influenced by local topographic highs in the southwestern (Empey Hill Drumlin) and eastern (groundwater monitor M96 area) portions of the site, and is characterized by a flow divide with shallow groundwater being directed both to the north (toward Marysville Creek) and the south (toward Beechwood Ditch).
  - o Groundwater in the intermediate bedrock flow zone generally flows to the north, west, and south relative to the landfill. Overall, the directions of groundwater flow within the intermediate flow zone are consistent with the regional directions of groundwater flow, towards the south.
- Groundwater quality data from spring 2013 are generally consistent with historical results.
- Slightly elevated concentrations of a number of water quality parameters are seen in the shallow groundwater zone northwest and north of the Phase 1 landfill footprint. In other

areas of the site, there is no evidence of groundwater impact away from the landfill footprint in the shallow groundwater flow zone.

- The geochemical results for the intermediate bedrock groundwater flow zone indicate higher concentrations of water quality parameters south of the landfill relative to the concentrations west and north of the landfill. The higher concentrations are downgradient from the landfill footprint and occur in monitoring wells that are known to be hydraulically connected to each other. These concentrations may reflect minor groundwater impacts from site activities.
- Further investigation of the groundwater conditions south of the landfill is underway in order to better define and delineate impacts from the landfill and other contaminant sources.
- Continued groundwater monitoring within the shallow and intermediate bedrock groundwater flow zones between the landfill footprint and the low-head areas is warranted in order to further examine groundwater quality and any trends over time.
- It is recommended that the following groundwater monitoring wells be replaced, upgraded or removed from the monitoring program for the reasons stated below, as these wells have become unreliable for water level and/or quality monitoring as a result of these issues:
  - M29 and M39: low recovery small diameter (2.54 cm) overburden monitors that are often dry and/or cannot be sampled after being purged dry;
  - M75: integrity concerns with the bentonite seal (presence of bentonite in purge water); and
  - M19, M58-4 and OW57: damaged monitors.

Repair, upgrade or replacement of these wells will be subject to the outcome from the ongoing investigation, and will be documented in the revised EMP (as per Condition 8.5(b) of the Amended ECA.

4.2 Surface Water

- The concentrations observed are within the range of historical monitoring results.
- The concentration of total phosphorus exceeded the PWQO during the 2013 sampling event for all upstream and downstream locations in Beechwood Ditch (S5, S4R and S8R). The concentration of iron was above the PWQO at upstream location S5 in Beechwood Ditch.
- The results indicate that surface water runoff from the site or discharge of contaminated groundwater is not affecting Marysville Creek or Beechwood Ditch.

4.3 SUBSURFACE GAS

- All measurements for methane gas were below the LEL of 5% by volume in air, or 50,000 ppm.

5. LIMITING CONDITIONS

The spring 2013 monitoring program involved the collection of leachate, groundwater (from on-site monitoring wells and off-site domestic supply wells) and surface water for analyses at the site monitoring locations. The data collected during this investigation represent the conditions at the sampled locations only.

The conclusions presented in this report represent our professional opinion and are based on the conditions observed on the dates set out in the report, the information available at the time this report was prepared, the scope of work, and any limiting conditions noted herein.

WESA provides no assurances regarding changes to conditions subsequent to the time of the assessment. WESA makes no warranty as to the accuracy or completeness of the information provided by others or of the conclusions and recommendations predicated on the accuracy of that information.

This report has been prepared for Waste Management of Canada. Any use a third party makes of this report, any reliance on the report, or decisions based upon the report, are the responsibility of those third parties unless authorization is received from WESA in writing. WESA accepts no responsibility for any loss or damages suffered by any unauthorized third party as a result of decisions made or actions taken based on this report.

Respectfully submitted,

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TABLES

Table 1: Summary of Environmental Monitoring Program

<table>
<tr><th colspan="2">Monitoring Locations</th><th>Parameter Suite</th><th>Monitoring Frequency</th></tr>
<tr><td colspan="4">Shallow Groundwater Flow Zone Monitors</td></tr>
<tr><td colspan="2">M12, M14, M15, M16, M18, M19, M23, M27, M28, M29, M30, M31, M35, M38, M39, M41, M47-3, M53-4, M54-4, M58-4, M60-4, M66-2, M67-2, M68-4, M70-3, M77, M80-2, M81, M87-2, M88-2, M89-2, M96, M97, M98, M99-2, M100, M101, M102, M103, OW37-s, OW57</td><td>Groundwater Elevations</td><td>Semi-annual: Spring and Fall</td></tr>
<tr><td colspan="2">M29, M39, M41, M53-4, M54-4, M58-4, M66-2, M67-2, M68-4, M70-3, M80-2, M81, M87-2, M96, M97, M99-2, M101, M102, M103, OW37-s</td><td>Groundwater Inorganic & General</td><td>Semi-annual: Spring and Fall</td></tr>
<tr><td colspan="2">M41, M58-4, M96, M97, M53-4, M54-4, M66-2, M67-2, M70-3, M80-2, M87-2, M101, M102, M103, OW37-s</td><td>VOCs</td><td>Annual: Spring</td></tr>
<tr><td colspan="4">Intermediate Bedrock Groundwater Flow Zone Monitors</td></tr>
<tr><td colspan="2">M3A-3, M9-3, M10-1, M49-1, M49-2, M50-3, M52-1, M56-2, M58-3, M59-2, M59-3, M59-4, M60-1, M63-2, M64-2, M70-1, M71, M72, M73, M74, M80-1, M82-1, M82-2, M91-1, M95-1, M105, M106, M107*, M108, OW1, OW4, OW54-i, OW54-d</td><td>Groundwater Elevations</td><td>Semi-annual: Spring and Fall</td></tr>
<tr><td colspan="2">M5-3, M6-3, M9-3, M10-1, M49-1, M49-2, M52-1, M56-2, M58-3, M59-2, M59-3, M59-4, M70-1, M71, M72, M74, M75, M80-1, M82-1, M82-2, M91-1, M95-1, M105, M107*, OW1, OW4, OW54-d</td><td>Groundwater Inorganic & General</td><td>Semi-annual: Spring and Fall</td></tr>
<tr><td colspan="2">M5-3, M6-3, M9-3, M10-1, M49-1, M49-2, M52-1, M56-2, M59-3, M70-1, M74, M75, M80-1, M82-1, M82-2, M91-1, M95-1, OW1, OW4</td><td>VOCs</td><td>Annual: Spring</td></tr>
<tr><td colspan="4">Surface Water Sampling Locations</td></tr>
<tr><td rowspan="2">Beechwood Ditch</td><td>S4R, S5 and S8R</td><td>Surface Water Inorganic and General</td><td>Spring, Summer and Fall</td></tr>
<tr><td>S8R</td><td>PAHs</td><td>Spring and Summer</td></tr>
<tr><td rowspan="2">Marysville Creek</td><td rowspan="2">S2, S3, S6 and S7</td><td>Surface Water Inorganic and General</td><td>Spring, Summer and Fall</td></tr>
<tr><td>PAHs</td><td>Spring and Summer</td></tr>
<tr><td colspan="4">Leachate Monitoring Locations</td></tr>
<tr><td colspan="2">North Chamber and South Chamber</td><td>Groundwater Inorganic & General
VOCs, PAHs</td><td>Annual: Spring</td></tr>
<tr><td colspan="4">Landfill Gas Monitoring Wells</td></tr>
<tr><td colspan="2">GM1, GM3, GM4-1, GM4-2, GM5, GM6</td><td>% methane by volume</td><td>Semi-annual: Spring and Fall</td></tr>
<tr><td colspan="4">Off-site Domestic Water Supply Wells</td></tr>
<tr><td>1097 Beechwood Road
1121 Beechwood Road
1144 Beechwood Road
1181 Beechwood Road</td><td>1206 Beechwood Road
1250 Beechwood Road
1252 Beechwood Road
1264 Beechwood Road</td><td>Groundwater Inorganic & General, VOCs</td><td>Semi-annual: Spring and Fall</td></tr>
</table>

* M107: Originally labelled as M106 in EMP dated June 29, 2010

Table 2. Analytical Parameters for Water and Leachate Samples

Groundwater Inorganic and General Parameters		
Alkalinity	Conductivity	Nitrite
Ammonia (total)	Copper	pH
Arsenic	Dissolved organic carbon	Phenols
Barium	Hardness	Phosphorus (total)
Biological oxygen demand	Iron	Potassium
Boron	Lead	Sodium
Cadmium	Magnesium	Sulphate
Calcium	Manganese	Total dissolved solids
Chemical oxygen demand	Mercury	Total Kjeldahl Nitrogen
Chloride	Naphthalene	Zinc
Chromium (total)	Nitrate	
Surface Water Inorganic and General Parameters		
Alkalinity	Cyanide (free)	Total dissolved solids
Ammonia (total)	Hardness	Total kjeldahl nitrogen
Arsenic	Iron	Total phosphorus
Barium	Lead	Total suspended solids
Biological oxygen demand	Magnesium	Un-ionized ammonia
Boron	Mercury	Zinc
Cadmium	Naphthalene	
Calcium	Nickel	*Field measured:*
Chemical oxygen demand	Nitrate	conductivity
Chloride	Nitrite	dissolved oxygen
Chromium (total)	Phenols	estimated flow rate
Cobalt	Potassium	pH
Conductivity	Sodium	temperature
Copper	Sulphate	
Leachate Inorganic and General Parameters		
Alkalinity	Conductivity	Nitrite
Ammonia (total)	Copper	pH
Arsenic	Dissolved organic carbon	Phenols
Barium	Hardness	Phosphorus (total)
Biological oxygen demand	Iron	Potassium
Boron	Lead	Sodium
Cadmium	Magnesium	Sulphate
Calcium	Manganese	Total dissolved solids
Chemical oxygen demand	Mercury	Total Kjeldahl Nitrogen
Chloride	Naphthalene	Zinc
Chromium (total)	Nickel	
Cobalt	Nitrate	
Volatile Organic Compounds (VOCs)		
1,1,1,2-Tetrachloroethane	Benzene	Ethylbenzene
1,1,1-Trichloroethane	Bromodichloromethane	m&p-Xylene
1,1,2,2-Tetrachloroethane	Bromoform	o-Xylene
1,1,2-Trichloroethane	Bromomethane	Styrene
1,1-Dichloroethane	Carbon tetrachloride	Toluene
1,1-Dichloroethylene	Chlorobenzene	Trans-1,2-Dichloroethylene
1,2-Dibromoethane	Chloroethane	Trans-1,3-Dichloropropylene
1,2-Dichlorobenzene	Chloroform	Tetrachloroethylene
1,2-Dichloroethane	Chloromethane	Trichloroethylene
1,2-Dichloropropane	Cis-1,2-Dichloroethylene	Trichlorofluoromethane
1,3,5-Trimethylbenzene	Cis-1,3-Dichloropropylene	Vinyl chloride
1,3-Dichlorobenzene	Dibromochloromethane	
1,4-Dichlorobenzene	Dichloromethane (methylene chloride)	
Polycyclic Aromatic Hydrocarbons (PAHs)		
Biphenyl	Benzo(g,h,i)perylene	1-Methylnaphthalene
Acenaphthene	Benzo(k)fluoranthene	2-Methylnapthalene
Acenaphthylene	Chrysene	Naphthalene
Anthracene	Dibenz(a,h)anthracene	Phenanthrene
Benzo(a)anthracene	Fluoranthene	Pyrene
Benzo(a)pyrene	Fluorene	
Benzo(b/j)fluoranthene	Indeno(1,2,3-cd)pyrene	

Table 3. Groundwater Elevation Monitoring Locations

Location	Shallow Groundwater Flow Zone			Intermediate Groundwater Flow Zone		
West of landfill footprint	M27	M58-4	M98	M3A-3	M59-4	M82-1
	M28	M67-2	M99-2	M56-2	M72	M82-2
	M29	M87-2	M100	M58-3	M73	M91-1
	M30	M88-2	M101	M59-2	M74	M95-1
	M31	M89-2	M102	M59-3		
	M38	M97	OW37-s			
North of landfill footprint	M35	M66-2		M60-1		
	M39	M103		OW1		
	M60-4			OW4		
South of landfill footprint	M12	M18	M80-2	M9-3	M64-2	M105
	M14	M41	M81	M10-1	M71	M106
	M15	M53-4	OW57	M49-1	M80-1	M107*
	M16	M54-4		M49-2	OW54-i	M108
				M63-2	OW54-d	
East of landfill footprint	M19	M68-4	M96	M50-3		
	M23	M70-3		M52-1		
	M47-3	M77		M70-1		

* M107: Originally labelled as M106 in EMP dated June 29, 2010

Table 4: Leachate Chemistry Results - April 26, 2013

		North Chamber 2013-04-26	South Chamber 2013-04-26
General and Inorganic Parameters			
Alkalinity	mg/L	2700	4000
Ammonia	mg/L	405	710
Arsenic	mg/L	0.0091	0.012
Barium	mg/L	0.27	0.31
Biochemical Oxygen Demand	mg/L	66	63
Boron	mg/L	3.3	6.8
Cadmium	mg/L	< 0.0001	< 0.0005
Calcium	mg/L	200	130
Chemical Oxygen Demand	mg/L	510	850
Chloride	mg/L	800	1300
Chromium	mg/L	0.053	0.087
Cobalt	mg/L	0.018	0.03
Conductivity	μS/cm	6970	11500
Copper	mg/L	0.011	< 0.005
Dissolved Organic Carbon	mg/L	184	286
Hardness	mg/L	850	820
Iron	mg/L	17	1.6
Lead	mg/L	0.0024	< 0.0025
Magnesium	mg/L	100	130
Manganese	mg/L	1	0.28
Mercury	mg/L	< 0.0002	< 0.0002
Nickel	mg/L	0.075	0.16
Nitrate	mg/L	< 1	< 1
Nitrite	mg/L	< 0.1	< 0.1
pH (Lab)	unitless	7.2	7.54
Phenols	mg/L	0.043	0.045
Phosphorus (total)	mg/L	2.6	4.3
Potassium	mg/L	190	350
Sodium	mg/L	660	1300
Sulphate	mg/L	< 10	180
Total Dissolved Solids	mg/L	2960	4590
Total Kjeldahl Nitrogen	mg/L	350	620
Zinc	mg/L	0.032	< 0.025

Table 4: Leachate Chemistry Results - April 26, 2013

		North Chamber 2013-04-26	South Chamber 2013-04-26
Polyaromatic Hydrocarbons (PAHs)			
1-Methylnaphthalene	mg/L	0.00067	0.0012
2-Methylnaphthalene	mg/L	0.00087	0.00099
Acenaphthene	mg/L	0.00055	0.0032
Acenaphthylene	mg/L	< 0.00005	0.000064
Anthracene	mg/L	< 0.0004	0.0017
Benzo(a)anthracene	mg/L	< 0.00005	0.00016
Benzo(a)pyrene	mg/L	0.000021	0.000044
Benzo(b)fluoranthene	mg/L	< 0.00005	0.000068
Benzo(g,h,i)perylene	mg/L	< 0.00005	< 0.00005
Benzo(k)fluoranthene	mg/L	< 0.00005	< 0.00005
Biphenyl	mg/L	0.00023	0.00041
Chrysene	mg/L	< 0.00005	0.00013
Dibenzo(a,h)anthracene	mg/L	< 0.00005	< 0.00005
Fluoranthene	mg/L	0.00021	0.0015
Fluorene	mg/L	0.0003	0.003
Indeno(1,2,3-cd)pyrene	mg/L	< 0.00005	< 0.00005
Naphthalene	mg/L	0.0072	0.0019
Phenanthrene	mg/L	0.0005	0.0055
Pyrene	mg/L	0.00016	0.00088

Table 4: Leachate Chemistry Results - April 26, 2013

		North Chamber 2013-04-26	South Chamber 2013-04-26
Volatile Organic Compounds (VOCs)			
1,1,1,2-Tetrachloroethane	mg/L	< 0.01	< 0.01
1,1,1-Trichloroethane	mg/L	< 0.005	< 0.005
1,1,2,2-Tetrachloroethane	mg/L	< 0.01	< 0.01
1,1,2-Trichloroethane	mg/L	< 0.01	< 0.01
1,1-Dichloroethane	mg/L	< 0.005	< 0.005
1,1-Dichloroethylene	mg/L	< 0.005	< 0.005
1,2-Dibromoethane	mg/L	< 0.01	< 0.01
1,2-Dichlorobenzene (o)	mg/L	< 0.01	< 0.01
1,2-Dichloroethane	mg/L	< 0.01	< 0.01
1,2-Dichloropropane	mg/L	< 0.005	< 0.005
1,3,5-Trimethylbenzene	mg/L	< 0.01	< 0.01
1,3-Dichlorobenzene (m)	mg/L	< 0.01	< 0.01
1,4-Dichlorobenzene (p)	mg/L	< 0.01	< 0.01
Benzene	mg/L	< 0.005	0.0079
Bromodichloromethane	mg/L	< 0.005	< 0.005
Bromoform	mg/L	< 0.01	< 0.01
Bromomethane	mg/L	< 0.025	< 0.025
Carbon Tetrachloride	mg/L	< 0.005	< 0.005
Chlorobenzene	mg/L	< 0.005	< 0.005
Chloroethane	mg/L	< 0.01	< 0.01
Chloroform	mg/L	< 0.005	< 0.005
Chloromethane	mg/L	< 0.025	< 0.025
Cis-1,2-Dichloroethylene	mg/L	< 0.005	< 0.005
Cis-1,3-Dichloropropylene	mg/L	< 0.01	< 0.01
Dibromochloromethane	mg/L	< 0.01	< 0.01
Dichloromethane	mg/L	< 0.025	< 0.025
Ethylbenzene	mg/L	< 0.005	0.02
m+p-Xylene	mg/L	0.073	0.042
o-Xylene	mg/L	0.022	0.018
Styrene	mg/L	< 0.01	< 0.01
Tetrachloroethylene	mg/L	< 0.005	< 0.005
Toluene	mg/L	< 0.01	< 0.01
Trans-1,2-dichloroethylene	mg/L	< 0.005	< 0.005
Trans-1,3-dichloropropylene	mg/L	< 0.01	< 0.01
Trichloroethylene	mg/L	< 0.005	< 0.005
Trichlorofluoromethane	mg/L	< 0.01	< 0.01
Vinyl Chloride	mg/L	< 0.01	< 0.01

Table 5: Groundwater Elevations - April 19, 2013

Monitoring Well	Water Level (masl)	Monitoring Well	Water Level (masl)	Monitoring Well	Water Level (masl)	Monitoring Well	Water Level (masl)
Shallow Groundwater Flow Zone							
M12	125.732	M31	124.287	M67-2	122.741	M98	130.325
M14	127.228	M35	124.387	M68-4	124.203	M99-2	130.591
M15	125.459	M38	125.514	M70-3	127.316	M100	125.476
M16	124.485	M39	123.810	M77	126.777	M101	124.191
M18	127.688	M41	125.383	M80-2	123.735	M102	124.230
M19	129.040	M47-3	124.791	M81	124.625	M103	123.826
M23	127.536	M53-4	125.516	M87-2	124.731	OW37-s	122.166
M27	126.467	M54-4	124.466	M88-2	128.801	OW57	damaged
M28	missed	M58-4	125.271	M89-2	129.800		
M29*	123.698	M60-4	124.372	M96	129.204		
M30	124.500	M66-2	123.261	M97	125.778		
Intermediate Bedrock Groundwater Flow Zone							
M3A-3	124.971	M58-3	123.509	M72	123.298	M105	124.706
M9-3	124.878	M59-2	123.527	M73	123.363	M106	123.438
M10-1	123.796	M59-3	123.484	M74	123.899	M107	124.623
M49-1	124.123	M59-4	123.509	M80-1	123.537	M108	122.463
M49-2	122.698	M60-1	123.897	M82-1	122.604	OW1	121.960
M50-3	124.586	M63-2	121.565	M82-2	123.185	OW4	123.738
M52-1	120.118	M64-2	119.083	M91-1	123.498	OW54-d	123.090
M56-2	123.480	M70-1	117.522	M95-1	123.353	OW54-i	124.265
		M71	124.580				

* Casing severely heaved

Table 6a: Groundwater Quality Results - April 23-26, 2013

Name	Date	Alkalinity	Ammonia	Arsenic	Barium	Biochemical Oxygen Demand	Boron	Cadmium	Calcium	Chemical Oxygen Demand	Chloride	Chromium	Conductivity	Copper	Dissolved Organic Carbon	Hardness	Iron	Lead	Magnesium	Manganese	Mercury	Naphthalene	Nitrate	Nitrite	pH (Lab)	Phenols	Phosphorus (total)	Potassium	Sodium	Sulphate	Total Dissolved Solids	Total Kjeldahl Nitrogen	Zinc
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	unitless	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Shallow Groundwater Flow Zone [1]																																	
M41	26/04/2013	430	< 0.15	< 0.001	0.085	< 2	0.056	< 0.0001	150	20	180	< 0.005	1510	0.0017	3.2	690	0.18	< 0.0005	76	0.026	< 0.0002	< 0.0005	< 0.1	< 0.01	7.87	< 0.001	< 0.03	14	37	90	864	< 0.7	< 0.005
M53-4	24/04/2013	350	0.18	< 0.001	0.053	< 2	0.028	< 0.0001	130	9.6	5	< 0.005	827	< 0.001	3.4	420	0.36	< 0.0005	22	0.4	< 0.0002	< 0.0005	< 0.1	< 0.01	7.84	< 0.001	0.08	0.29	26	82	536	0.7	< 0.005
M54-4	23/04/2013	400	< 0.15	< 0.001	0.19	< 2	0.032	< 0.0001	140	9.3	68	0.015	1020	< 0.001	3.6	480	< 0.1	< 0.0005	29	0.015	< 0.0002	< 0.0005	< 0.1	< 0.01	7.79	< 0.001	0.74	1.4	66	45	602	< 0.7	0.0066
M66-2	23/04/2013	280	0.17	0.0014	0.024	< 2	0.7	< 0.0001	150	10	140	0.0084	1770	< 0.001	1.8	620	0.24	< 0.0005	58	0.02	< 0.0002	< 0.0005	< 0.1	< 0.01	8.12	< 0.001	0.06	6.5	180	370	1160	0.8	0.025
M67-2	23/04/2013	360	0.6	0.0014	0.22	< 2	0.72	< 0.0001	58	21	5	0.0058	744	< 0.001	3.2	280	0.79	< 0.0005	33	0.053	< 0.0002	< 0.0005	< 0.1	< 0.01	8.21	0.026	0.16	8.3	70	33	394	1.6	< 0.005
M68-4	23/04/2013	280	< 0.15	< 0.001	0.065	< 2	< 0.01	< 0.0001	110	12	25	0.0057	681	< 0.001	2.9	330	0.13	< 0.0005	17	0.079	< 0.0002	< 0.0005	< 0.1	< 0.01	7.87	< 0.001	0.82	0.3	20	34	400	1	< 0.005
M70-3	25/04/2013	410	< 0.15	0.0013	0.022	< 2	0.012	< 0.0001	150	< 4	20	< 0.005	987	< 0.001	3.3	530	2.6	< 0.0005	35	0.29	< 0.0002	< 0.0005	< 0.1	< 0.01	7.82	< 0.001	0.05	0.38	21	120	634	< 0.7	< 0.005
M80-2	24/04/2013	290	< 0.15	< 0.001	0.1	< 2	0.071	< 0.0001	84	7.3	49	0.015	815	< 0.001	2.3	390	< 0.1	< 0.0005	43	0.0024	< 0.0002	< 0.0005	< 0.1	< 0.01	7.97	< 0.001	0.91	4.1	17	44	480	3	< 0.005
M81	24/04/2013	360	< 0.15	< 0.001	0.22	< 2	0.035	< 0.0001	110	< 4	64	< 0.005	935	< 0.001	1.6	490	< 0.1	< 0.0005	53	0.009	< 0.0002	< 0.0005	< 0.1	< 0.01	7.91	< 0.001	0.03	2.4	11	43	592	< 0.7	< 0.005
M87-2	24/04/2013	210	< 0.15	0.0012	0.052	< 2	0.033	< 0.0001	54	< 4	30	0.034	598	< 0.001	1.8	290	< 0.1	< 0.0005	37	0.0033	< 0.0002	< 0.0005	< 0.1	< 0.01	8.15	< 0.001	1.7	2	13	52	372	< 0.7	< 0.005
M96	25/04/2013	310	< 0.15	< 0.001	0.11	< 2	0.069	< 0.0001	69	< 4	4	< 0.005	657	< 0.001	2	310	< 0.1	< 0.0005	33	< 0.002	< 0.0002	< 0.0005	1.4	< 0.01	8.02	< 0.001	0.22	4.2	23	37	386	< 0.7	< 0.005
M97	24/04/2013	220	< 0.15	0.0012	0.076	< 2	0.063	< 0.0001	32	< 4	6	0.01	530	< 0.001	2.4	220	< 0.1	< 0.0005	33	< 0.002	< 0.0002	< 0.0005	< 0.1	< 0.01	8.26	< 0.001	0.59	2	32	54	294	< 0.7	< 0.005
M99-2	23/04/2013	300	0.25	0.0016	0.043	< 2	0.086	< 0.0001	72	18	28	0.026	872	< 0.001	3	460	0.48	< 0.0005	68	0.02	< 0.0002	< 0.0005	< 0.1	< 0.01	8.09	< 0.001	4.9	2.9	20	120	548	1.2	< 0.005
M101	23/04/2013	400	< 0.15	< 0.001	0.16	< 2	0.076	< 0.0001	150	10	80	0.0059	1160	< 0.001	3.4	610	< 0.1	< 0.0005	54	0.023	< 0.0002	< 0.0005	< 0.1	< 0.01	7.93	< 0.001	0.2	4.1	19	98	698	0.7	< 0.005
M102	23/04/2013	440	< 0.15	< 0.001	0.13	< 2	0.025	< 0.0001	170	10	34	< 0.005	1050	< 0.001	3.7	550	0.23	< 0.0005	33	0.16	< 0.0002	< 0.0005	< 0.1	< 0.01	7.9	< 0.001	0.1	1.9	26	71	640	< 0.7	< 0.005
M103	23/04/2013	750	< 0.15	< 0.001	0.16	< 2	0.29	< 0.0001	140	19	150	< 0.005	1880	0.001	5	770	< 0.1	< 0.0005	99	0.0079	< 0.0002	< 0.0005	< 0.1	< 0.01	7.92	< 0.001	0.11	7.7	150	48	1060	< 0.7	< 0.005
OW37-s	26/04/2013	280	0.37	< 0.001	0.25	< 2	0.092	< 0.0001	98	18	85	< 0.005	878	< 0.001	2.9	350	6.2	< 0.0005	25	0.27	< 0.0002	< 0.0005	< 0.1	< 0.01	8.01	< 0.001	< 0.03	11	47	48	514	< 0.7	< 0.005
Intermediate BedrockGroundwater Flow Zone																																	
M5-3	23/04/2013	450	1.48	< 0.001	0.17	13	1.1	< 0.0001	39	12	44	< 0.005	1010	< 0.001	2.1	220	< 0.1	< 0.0005	31	0.0052	< 0.0002	< 0.0005	< 0.1	< 0.01	8.13	0.042	0.04	14	160	5	546	1.7	< 0.005
M6-3	23/04/2013	2100	6.65	< 0.002	1.4	8	0.17	< 0.0001	860	140	1100	0.022	11900	0.0043	47.3	2100	< 0.1	0.00059	0.14	< 0.002	< 0.0002	< 0.0005	< 0.1	< 0.01	12.5	0.03	< 0.15	57	590	1	4420	11	< 0.005
M9-3	24/04/2013	290	1.21	< 0.001	0.047	< 2	0.49	< 0.0001	44	4.5	76	< 0.005	834	< 0.001	2.9	220	0.34	< 0.0005	26	0.033	< 0.0002	< 0.0005	< 0.1	< 0.01	8.03	0.0022	0.04	18	80	17	446	1.3	< 0.005
M10-1	24/04/2013	480	0.78	0.002	0.23	< 2	0.32	< 0.0001	130	36	120	< 0.005	1290	< 0.001	7.4	460	18	< 0.0005	32	0.72	< 0.0002	< 0.0005	< 0.1	< 0.01	7.42	< 0.001	< 0.15	5.3	94	14	690	2	< 0.005
M49-1	24/04/2013	380	1.02	< 0.001	0.054	< 2	0.93	< 0.0001	13	9.1	400	< 0.005	2190	< 0.001	2.3	56	< 0.1	< 0.0005	5.9	0.026	< 0.0002	< 0.0005	< 0.1	< 0.01	8.17	< 0.001	0.06	8.3	440	33	1160	1.2	< 0.005
M49-2	24/04/2013	700	1.45	< 0.001	0.043	38	2.3	< 0.0001	11	49	220	< 0.005	2180	< 0.001	4	59	< 0.1	< 0.0005	7.7	0.0041	< 0.0002	< 0.0005	< 0.1	< 0.01	8.6	0.077	0.15	11	490	94	1260	5	< 0.005
M52-1	25/04/2013	420	1.37	< 0.001	0.2	< 2	1.3	< 0.0001	22	15	190	< 0.005	1410	< 0.001	1.9	110	0.75	< 0.0005	15	0.0083	< 0.0002	< 0.0025	< 0.1	< 0.01	8.13	< 0.001	< 0.03	11	260	1	772	1.6	< 0.005
M56-2	24/04/2013	290	0.18	< 0.001	0.19	< 2	0.062	< 0.0001	78	5.8	21	< 0.005	771	< 0.001	1.8	380	< 0.1	< 0.0005	45	0.055	< 0.0002	< 0.0005	< 0.1	< 0.01	8.16	< 0.001	< 0.03	3.2	12	95	472	< 0.7	< 0.005
M58-3	23/04/2013	310	< 0.15	< 0.001	0.15	< 2	< 0.01	< 0.0001	94	5.2	4	< 0.005	653	< 0.001	1.2	370	< 0.1	< 0.0005	34	< 0.002	< 0.0002	< 0.0005	0.2	< 0.01	8.04	< 0.001	< 0.03	1.7	5.2	38	376	< 0.7	< 0.005
M59-2	23/04/2013	420	0.53	< 0.001	0.2	< 2	0.22	< 0.0001	130	17	62	< 0.005	1040	< 0.001	7.2	490	< 0.1	< 0.0005	40	0.014	< 0.0002	< 0.0005	< 0.1	< 0.01	7.9	0.0044	< 0.03	5.5	34	35	604	1	< 0.005
M59-3	23/04/2013	250	< 0.15	< 0.001	0.1	< 2	0.04	< 0.0001	120	13	37	< 0.005	729	< 0.001	4.1	350	0.23	< 0.0005	14	0.023	< 0.0002	< 0.0005	1.5	0.01	7.95	< 0.001	< 0.03	2.2	18	56	440	< 0.7	< 0.005
M59-4	23/04/2013	280	0.59	0.0021	0.097	< 2	0.46	< 0.0001	70	5.5	7	< 0.005	640	< 0.001	2.9	320	1.1	< 0.0005	36	0.035	< 0.0002	< 0.0005	< 0.1	0.031	8.06	< 0.001	0.1	6.3	17	53	346	0.8	< 0.005
M70-1	26/04/2013	230	3.88	< 0.005	0.11	6	2.4	< 0.0005	300	70	18000	< 0.025	42700	< 0.005	4.4	1600	6.7	< 0.0025	200	0.092	< 0.0002	< 0.01	< 0.1	< 0.1	7.37	0.015	0.11	36	1800	450	18200	3.9	< 0.025
M71	24/04/2013	620	1.68	< 0.001	0.048	< 2	0.44	< 0.0001	180	27	190	< 0.005	1770	< 0.001	8	660	0.24	< 0.0005	52	0.022	< 0.0002	< 0.0005	< 0.1	< 0.01	7.5	0.0033	0.07	12	120	12	1000	2.1	< 0.005
M72	25/04/2013	250	0.61	< 0.001	0.15	< 2	0.37	< 0.0001	56	15	39	< 0.005	638	< 0.001	2	270	< 0.1	< 0.0005	32	0.0026	< 0.0002	< 0.0005	< 0.1	< 0.01	8.05	0.015	< 0.03	7.2	16	27	364	< 0.7	0.0078
M74	25/04/2013	300	1.7	0.0016	0.057	< 2	0.93	< 0.0001	27	39	26	< 0.005	729	< 0.001	3	140	< 0.1	< 0.0005	17	0.013	< 0.0002	< 0.0005	< 0.1	< 0.01	8.19	0.0035	0.71	15	100	44	434	1.7	< 0.005
M75	25/04/2013	440	2.43	< 0.001	0.077	5	1.2	< 0.0001	34	130	73	0.012	1130	< 0.001	1.7	180	< 0.1	< 0.0005	23	0.011	< 0.0002	< 0.0025	< 0.1	< 0.01	8.18	0.033	1.3	15	170	50	646	2.6	< 0.005
M80-1	24/04/2013	160	0.48	< 0.001	0.039	< 2	0.37	< 0.0001	22	17	11	< 0.005	410	< 0.001	1.2	110	< 0.1	< 0.0005	12	0.0044	< 0.0002	< 0.0005	< 0.1	< 0.01	7.83	0.032	< 0.03	4.4	32	31	208	< 0.7	< 0.005
M82-1	24/04/2013	350	0.87	0.0011	0.17	< 2	0.96	< 0.0001	49	19	45	< 0.005	961	< 0.001	2.7	220	0.12	< 0.0005	23	0.0047	< 0.0002	< 0.0005	< 0.1	< 0.01	8.14	0.0056	0.05	10	120	72	520	1	< 0.005
M82-2	24/04/2013	330	0.33	< 0.001	0.13	< 2	0.15	< 0.0001	100	6	25	< 0.005	818	< 0.001	2.9	380	< 0.1	< 0.0005	30	0.019	< 0.0002	< 0.0005	< 0.1	< 0.01	8.01	< 0.001	< 0.03	3.7	19	69	500	< 0.7	< 0.005
M91-1	23/04/2013	290	0.83	< 0.001	0.084	< 2	0.77	< 0.0001	46	11	16	< 0.005	702	< 0.001	1.7	210	< 0.1	< 0.0005	23	0.0066	< 0.0002	< 0.0005	< 0.1	< 0.01	8.08	< 0.001	< 0.03	8.3	70	46	400	1	< 0.005
M95-1	25/04/2013	330	0.25	< 0.001	0.14	< 2	0.027	< 0.0001	110	< 4	7	< 0.005	719	< 0.001	2	380	< 0.1	< 0.0005	27	0.002	< 0.0002	< 0.0005	0.12	< 0.01	7.91	< 0.001	< 0.03	2.1	6.4	61	462	< 0.7	< 0.005
M105	23/04/2013	570	0.94	< 0.001	0.21	< 2	0.34	< 0.0001	170	23	160	< 0.005	1600	< 0.001	6.9	700	< 0.1	< 0.0005	68	0.0096	< 0.0002	< 0.0005	< 0.1	< 0.01	7.75	0.0021	< 0.03	9.4	89	12	944	1.3	0.0094
M107[2]	20/06/2013	430	0.23	< 0.001	0.11	< 2	0.16	< 0.0001	130	18	96	< 0.005	1100	< 0.001	6.3	450	5.2	< 0.0005	32	0.35	< 0.0002	< 0.0005	< 0.1	< 0.01	8.15	< 0.001	< 0.03	3.6	66	15	630	0.8	< 0.005
OW1	23/04/2013	310	8.51	< 0.001	0.031	5	0.19	< 0.0005	25	83	38	< 0.005	738	0.0043	1.4	94	0.17	< 0.0005	7.9	0.13	< 0.0002	< 0.0005	< 0.1	< 0.01	7.98	0.0053	1.3	8.7	29	4	406	10	< 0.005
OW4	23/04/2013	1100	3.58	< 0.001	0.17	8	1.3	< 0.0001	140	230	470	< 0.005	3330	< 0.001	35.9	730	8.7	< 0.0005	90	0.17	< 0.0002	< 0.0005	< 0.1	< 0.01	7.84	0.0093	0.35	14	400	< 1	1670	7	< 0.005
OW54-d	24/04/2013	270	1.19	< 0.001	0.046	< 2	0.58	< 0.0001	43	< 4	83	< 0.005	844	< 0.001	1.6	220	< 0.1	< 0.0005	28	0.027	< 0.0002	< 0.0005	< 0.1	< 0.01	8.02	< 0.001	< 0.03	13	76	29	426	1.1	< 0.005

[1] Shallow groundwater monitoring wells not sampled: M29, M39, M58-4 (see text for details)

[2] M107: Originally labelled as M106 in EMP dated June 29, 2010

Table 6a: Groundwater Quality Results - April 23-26, 2013

Name	Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Benzene	Bromodichloromethane	Bromoform	Bromomethane
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Shallow Groundwater Flow Zone [1]																		
M41	26/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M53-4	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M54-4	23/04/2013	< 0.0002	0.0049	< 0.0002	< 0.0002	0.0013	0.00016	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M66-2	23/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M67-2	23/04/2013	< 0.02	< 0.01	< 0.02	< 0.02	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02	< 0.01	< 0.0002	< 0.02	< 0.02	< 0.01	< 0.01	< 0.02	< 0.05
M68-4	23/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M70-3	25/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M80-2	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M81	24/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M87-2	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M96	25/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M97	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M99-2	23/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M101	23/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	0.00021	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M102	23/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M103	23/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
OW37-s	26/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
Intermediate BedrockGroundwater Flow Zone																		
M5-3	23/04/2013	< 0.01	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.005	< 0.0002	< 0.01	< 0.01	< 0.005	< 0.005	< 0.01	< 0.025
M6-3	23/04/2013	< 0.005	< 0.0025	< 0.005	< 0.005	< 0.0025	< 0.0025	< 0.005	< 0.005	< 0.005	< 0.0025	< 0.0002	< 0.005	< 0.005	< 0.0025	< 0.0025	< 0.005	< 0.013
M9-3	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	0.00021	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	0.00044	< 0.0001	< 0.0002	< 0.0005
M10-1	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	0.003	0.00023	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	0.0001	< 0.0001	< 0.0002	< 0.0005
M49-1	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M49-2	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	0.00058	< 0.0001	< 0.0002	< 0.0005
M52-1	25/04/2013	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.001	0.026	< 0.0005	< 0.001	< 0.0025
M56-2	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M58-3	23/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M59-2	23/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M59-3	23/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M59-4	23/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M70-1	26/04/2013	< 0.004	< 0.002	< 0.004	< 0.004	< 0.002	< 0.002	< 0.004	< 0.004	< 0.006	< 0.002	< 0.004	< 0.004	< 0.004	0.14	< 0.002	< 0.004	< 0.01
M71	24/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M72	25/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M74	25/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M75	25/04/2013	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0025
M80-1	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	0.00026	< 0.0002	< 0.0002	0.009	< 0.0001	< 0.0002	< 0.0005
M82-1	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M82-2	24/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M91-1	23/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	0.00063	< 0.0001	< 0.0002	< 0.0005
M95-1	25/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M105	23/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
M107[2]	20/06/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	0.0011	0.00014	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
OW1	23/04/2013	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0001	< 0.0001	< 0.0002	< 0.0005
OW4	23/04/2013	< 0.002	< 0.001	< 0.002	< 0.002	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	< 0.0002	< 0.002	< 0.002	< 0.001	< 0.001	< 0.002	< 0.005
OW54-d	24/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Name	Date	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethylene	Cis-1,3-Dichloropropylene	Dibromochloromethane	Dichloromethane	Ethylbenzene	m&p-Xylene	o-Xylene	Styrene	Tetrachloroethylene mg/L	Toluene mg/L	Trans-1,2-dichloroethylene mg/	Trans-1,3-dichloropropylene mg	Trichloroethylene mg/L	Trichlorofluoromethane	Vinyl Chloride
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Shallow Groundwater Flow Zone [1]																					
M41	26/04/2013	< 0.0001	< 0.0001	< 0.001	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M53-4	24/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M54-4	23/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	0.0021	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	0.0071	< 0.0002	< 0.0001	< 0.0002	0.00049	< 0.0002	0.0003
M66-2	23/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M67-2	23/04/2013	< 0.01	< 0.01	< 0.02	< 0.01	< 0.05	< 0.01	< 0.02	< 0.02	< 0.05	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	0.63	< 0.01	< 0.02	< 0.01	< 0.02	< 0.02
M68-4	23/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M70-3	25/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M80-2	24/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M81	24/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M87-2	24/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M96	25/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M97	24/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M99-2	23/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M101	23/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M102	23/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M103	23/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
OW37-s	26/04/2013	< 0.0001	< 0.0001	< 0.001	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
Intermediate BedrockGroundwater Flow Zone																					
M5-3	23/04/2013	< 0.005	< 0.005	< 0.01	< 0.005	< 0.025	< 0.005	< 0.01	< 0.01	< 0.025	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	0.44	< 0.005	< 0.01	< 0.005	< 0.01	< 0.01
M6-3	23/04/2013	< 0.0025	< 0.0025	< 0.005	< 0.0025	< 0.013	< 0.0025	< 0.005	< 0.005	< 0.013	< 0.0025	< 0.0025	< 0.0025	< 0.005	< 0.0025	0.24	< 0.0025	< 0.005	< 0.0025	< 0.005	< 0.005
M9-3	24/04/2013	< 0.0001	< 0.0001	0.0038	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M10-1	24/04/2013	< 0.0001	< 0.0001	0.0091	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	0.00037
M49-1	24/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M49-2	24/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	0.00014	< 0.0001	< 0.0002	< 0.0001	0.00022	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M52-1	25/04/2013	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.001	< 0.001	< 0.0025	0.001	0.0028	0.0014	< 0.001	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001
M56-2	24/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M58-3	23/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M59-2	23/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M59-3	23/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M59-4	23/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M70-1	26/04/2013	< 0.002	< 0.002	< 0.02	< 0.002	< 0.01	< 0.002	< 0.004	< 0.004	< 0.01	< 0.002	< 0.002	< 0.002	< 0.004	< 0.002	< 0.004	< 0.002	< 0.004	< 0.002	< 0.004	< 0.004
M71	24/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M72	25/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M74	25/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M75	25/04/2013	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.001	< 0.001	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.025	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001
M80-1	24/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	0.00093	0.0032	0.0019	< 0.0002	< 0.0001	0.0066	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M82-1	24/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M82-2	24/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M91-1	23/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M95-1	25/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M105	23/04/2013	< 0.0001	< 0.0001	0.0012	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
M107[2]	20/06/2013	< 0.0001	< 0.0001	0.0063	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0001	< 0.0002	0.00022
OW1	23/04/2013	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0005	< 0.0001	< 0.0002	< 0.0002	< 0.0005	0.0042	0.00014	0.00015	< 0.0002	< 0.0001	0.001	< 0.0001	< 0.0002	< 0.0001	< 0.0002	< 0.0002
OW4	23/04/2013	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.001	< 0.002	< 0.002	< 0.005	0.014	< 0.001	< 0.001	< 0.002	< 0.001	0.0046	< 0.001	< 0.002	< 0.001	< 0.002	< 0.002
OW54-d	24/04/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Shallow groundwater monitoring wells not sampled: M29, M39, M58-4 (see text for details)

** M107: Originally labelled as M106 in EMP dated June 29, 2010

Table 6b: Groundwater Quality Results and Reasonable Use Limits - April 23-26, 2013

Name	Date	Alkalinity	Boron	Chloride	Chromium	Dissolved Organic Carbon	Iron	Manganese	Sodium	Total Dissolved Solids	1,4-Dichlorobenzene	Benzene	Chlorobenzene	Ethylbenzene	m&p-Xylene	Toluene
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Shallow Groundwater Flow Zone*																
RUL		*386*	*1.27*	*128*	*0.014*	*3.1*	*0.18*	*0.028*	*104*	*415*	*0.0013*	*0.0014*	*0.02*	*0.0013*	*0.15*	*0.0121*
M54-4	23/04/2013	400	0.032	68	0.015	3.6	< 0.1	0.015	66	602	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0071
M66-2	23/04/2013	280	0.7	140	0.0084	1.8	0.24	0.02	180	1160	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
M67-2	23/04/2013	360	0.72	5	0.0058	3.2	0.79	0.053	70	394	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
M80-2	24/04/2013	290	0.071	49	0.015	2.3	< 0.1	0.0024	17	480	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
M87-2	24/04/2013	210	0.033	30	0.034	1.8	< 0.1	0.0033	13	372	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
OW37-s	26/04/2013	280	0.092	85	< 0.005	2.9	6.2	0.27	47	514	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Intermediate BedrockGroundwater Flow Zone																
RUL		*403*	*1.3*	*130*	*0.014*	*3.4*	*0.18*	*0.037*	*106*	*478*	*0.0013*	*0.0014*	*-*	*0.0013*	*0.15*	*0.0121*
M10-1	24/04/2013	480	0.32	120	< 0.005	7.4	18	0.72	94	690	< 0.0002	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
M49-1	24/04/2013	380	0.93	400	< 0.005	2.3	< 0.1	0.026	440	1160	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
M56-2	24/04/2013	290	0.062	21	< 0.005	1.8	< 0.1	0.055	12	472	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
M58-3	23/04/2013	310	< 0.01	4	< 0.005	1.2	< 0.1	< 0.002	5.2	376	-	-	-	-	-	-
M70-1	26/04/2013	230	2.4	18000	< 0.025	4.4	6.7	0.092	1800	18200	< 0.004	0.14	< 0.002	< 0.002	< 0.002	< 0.002
M80-1	24/04/2013	160	0.37	11	< 0.005	1.2	< 0.1	0.0044	32	208	< 0.0002	0.009	< 0.0001	0.00093	0.0032	< 0.0001
M82-1	24/04/2013	350	0.96	45	< 0.005	2.7	0.12	0.0047	120	520	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
M82-2	24/04/2013	330	0.15	25	< 0.005	2.9	< 0.1	0.019	19	500	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
M91-1	23/04/2013	290	0.77	16	< 0.005	1.7	< 0.1	0.0066	70	400	< 0.0002	0.00063	< 0.0001	< 0.0001	< 0.0001	< 0.0001
M95-1	25/04/2013	330	0.027	7	< 0.005	2	< 0.1	0.002	6.4	462	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
M107**	20/06/2013	430	0.16	96	< 0.005	6.3	5.2	0.35	66	630	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002

* Shallow groundwater monitoring wells not sampled: M29, M39, M58-4 (see text for details)

** M107: Originally labelled as M106 in EMP dated June 29, 2010

Groundwater results exceed Reasonable Use Limits (RUL)

Table 6c: 1,4-Dioxane and Tritium Groundwater Results - April 30 - May 1, 2013

Name	Date	1,4 Dioxane	Tritium	
		mg/L	TU[1]	
Shallow Groundwater Flow Zone				
M41	30/04/2013	0.0019	13.7	+/- 1.1
M54-4	01/05/2013	< 0.001	13.5	+/- 1.1
M101	01/05/2013	0.00251	16.1	+/- 1.2
M102	01/05/2013	< 0.001	12.6	+/- 1.0
M103	01/05/2013	0.022	42.3	+/- 8.0
Intermediate BedrockGroundwater Flow Zone [2]				
M6-3	30/04/2013	0.119	572.4	+/- 8.0
M9-3[3]	30/04/2013		8.3	+/- 0.8
M10-1	30/04/2013	0.0157	26.4	+/- 1.9
M49-2	01/05/2013	< 0.001	<0.8	+/- 0.4
M52-1	01/05/2013	< 0.001	0.9	+/- 0.4
M59-2	01/05/2013	< 0.001	11.4	+/- 0.9
M71	01/05/2013	0.0274	37.2	+/- 2.6
M75	01/05/2013	< 0.001	<0.8	+/- 0.4
M105	30/04/2013	0.0138	32.3	+/- 2.3
M107[4]	30/04/2013	0.0166	30.2	+/- 2.1
OW1	30/04/2013	< 0.001	1.4	+/- 0.5
OW4	30/04/2013	0.134	187.5	+/- 8.0

[1] TU = Tritium Unit: 1 TU = 3.221 Picocurries/L; 1 TU = 0.11919 Becquerels/L
Accuracy ranges (+/-) provided by University of Waterloo Environmental Isotope Laboratory
[2] Results for M82-1 not available at time of reporting
[3] 1,4-dioxane result not available at time of reporting
[4] Originally labelled as M106 in EMP dated June 29, 2010

Table 7a: Water Quality Results from Off-Site Domestic Supply Wells - April 24, 2013

		ODWSOG		1097 Beechwood Rd	1121 Beechwood Rd	1144 Beechwood Rd	1181 Beechwood Rd	1206 Beechwood Rd	1250 Beechwood Rd	1252 Beechwood Rd	1264 Beechwood Rd
Inorganic and General Parameters											
Alkalinity (as CaCO3)	mg/L	30-500	OG	210	240	470	390	*670*	360	*530*	*520*
Ammonia	mg/L			< 0.15	< 0.15	1.03	2.28	0.28	0.41	0.64	0.51
Arsenic	mg/L	0.025	IMAC	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0022	0.0016	< 0.001
Barium	mg/L	1	MAC	0.063	0.062	0.024	0.11	0.14	0.15	0.26	0.092
Biochemical Oxygen Demand	mg/L			< 2	< 2	< 2	7	< 2	< 2	< 2	< 2
Boron	mg/L	5	IMAC	0.043	0.022	0.28	0.78	0.12	0.11	0.24	0.32
Cadmium	mg/L	0.005	IMAC	< 0.0001	0.00012	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Calcium	mg/L			83	83	130	110	260	120	170	160
Chemical Oxygen Demand	mg/L			5.3	4.2	15	22	7.4	13	31	25
Chloride	mg/L	250	AO	5	8	110	*360*	180	59	140	200
Chromium	mg/L	0.05	MAC	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Conductivity	µS/cm			504	562	1260	2000	1820	883	1450	1640
Copper	mg/L	1	AO	0.007	0.0025	< 0.001	0.089	0.59	< 0.001	0.012	0.0023
Dissolved Organic Carbon	mg/L	5	AO	3	2	5	4.2	*8.2*	*5.2*	*8.5*	*6.7*
Hardness (as CaCO3)	mg/L	80-100	OG	*260*	*280*	*490*	*450*	*780*	*370*	*530*	*560*
Iron	mg/L	0.3	AO	0.12	< 0.1	< 0.1	*1.3*	*2.8*	*15*	*23*	*11*
Lead	mg/L	0.01	MAC	0.00066	< 0.0005	< 0.0005	0.01	*0.034*	< 0.0005	0.00059	< 0.0005
Magnesium	mg/L			12	21	41	52	44	23	38	44
Manganese	mg/L	0.05	AO	< 0.002	0.011	0.0034	0.013	*3.9*	*0.97*	*0.97*	*0.56*
Mercury	mg/L	0.001	MAC	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Naphthalene	mg/L	10	MAC	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Nitrate	mg/L	10	MAC	4.7	0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nitrite	mg/L	1	MAC	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01
pH (Lab)	unitless	6.5-8.5	OG	8.22	8.11	7.89	7.99	7.67	7.78	7.76	7.74
Phenols	mg/L			< 0.001	< 0.001	0.0019	0.02	< 0.001	< 0.001	< 0.001	< 0.001
Phosphorus (total)	mg/L			0.04	< 0.03	< 0.03	0.1	0.13	< 0.03	0.04	< 0.03
Potassium	mg/L			6.6	2.1	11	16	7	3.7	5.6	7.9
Sodium	mg/L	200 20	AO (see note)	8	11	*84*	*240*	*110*	*54*	*110*	*150*
Sulphate	mg/L	500	AO	20	38	29	15	35	16	11	13
Total Dissolved Solids	mg/L	500	AO	300	322	*686*	*1080*	*1080*	492	*820*	*876*
Total Kjeldahl Nitrogen	mg/L			< 0.7	< 0.7	1.5	2.4	0.8	1.1	1.2	1.1
Zinc	mg/L	5	AO	0.076	0.042	< 0.005	0.017	0.19	0.016	0.097	0.04

Exceeds ODWSOG

ODWSOG: Ontario Drinking Water Objective Standards and Guidelines
OG: Operational Guidelines
MAC: Maximum Acceptable Concentration
IMAC: Interim Maximum Acceptable Concentration
AO: Asthetic Objectives

Note: The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

Table 7a: Water Quality Results from Off-Site Domestic Supply Wells - April 24, 2013

		ODWSOG		1097 Beechwood Rd	1121 Beechwood Rd	1144 Beechwood Rd	1181 Beechwood Rd	1206 Beechwood Rd	1250 Beechwood Rd	1252 Beechwood Rd	1264 Beechwood Rd
Volatile Organic Compounds (VOC)											
1,1,1,2-Tetrachloroethane	mg/L			< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
1,1,1-Trichloroethane	mg/L			< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0083	< 0.0001
1,1,2,2-Tetrachloroethane	mg/L			< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
1,1,2-Trichloroethane	mg/L			< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
1,1-Dichloroethane	mg/L			< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.00078	0.0035	0.012	0.00083
1,1-Dichloroethylene	mg/L	0.014	MAC	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.00014	0.0019	0.00032
1,2-Dibromoethane	mg/L			< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
1,2-Dichlorobenzene (o)	mg/L	0.2 0.003	MAC AO	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
1,2-Dichloroethane	mg/L	0.005	IMAC	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
1,2-Dichloropropane	mg/L			< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
1,3,5-Trimethylbenzene	mg/L			< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
1,3-Dichlorobenzene (m)	mg/L			< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
1,4-Dichlorobenzene (p)	mg/L	0.005 0.001	MAC AO	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Benzene	mg/L	0.005	MAC	< 0.0001	< 0.0001	< 0.0001	0.00014	< 0.0001	< 0.0001	< 0.0001	0.00013
Bromodichloromethane	mg/L			< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Bromoform	mg/L			< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Bromomethane	mg/L			< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Tetrachloride	mg/L	0.005	MAC	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Chlorobenzene	mg/L			< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Chloroethane	mg/L			< 0.0002	< 0.0002	0.00048	< 0.0002	< 0.0002	0.0016	0.0063	0.014
Chloroform	mg/L			0.00042	0.00015	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0015	< 0.0001
Chloromethane	mg/L			< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Cis-1,2-Dichloroethylene	mg/L			< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Cis-1,3-Dichloropropylene	mg/L			< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Dichloromethane	mg/L	0.05	MAC	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Ethylbenzene	mg/L	0.002	AO	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
m+p-Xylene	mg/L			< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
o-Xylene	mg/L			< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Styrene	mg/L			< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Tetrachloroethylene	mg/L	0.03	MAC	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Toluene	mg/L	0.024	AO	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.00019	< 0.0001
Total Xylenes	mg/L	0.3	AO	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Trans-1,2-dichloroethylene	mg/L			< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Trans-1,3-dichloropropene	mg/L			< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Trichloroethylene	mg/L	0.005	MAC	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.00016	< 0.0001
Trichlorofluoromethane	mg/L			< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Vinyl Chloride	mg/L	0.002	MAC	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00026	0.00029	< 0.0002

Exceeds ODWSOG

ODWSOG: Ontario Drinking Water Objective Standards and Guidelines
OG: Operational Guidelines
MAC: Maximum Acceptable Concentration
IMAC: Interim Maximum Acceptable Concentration
AO: Asthetic Objectives

Note: The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

Table 7b: 1,4-Dioxane and Tritium Off-Site Domestic Supply Well Results - April 24, 2013

Name	Date	1,4 Dioxane	Tritium	
		mg/L	TU[1]	
1097 Beechwood Rd	24/04/2013	< 0.001	14.9	+/- 1.2
1121 Beechwood Rd	24/04/2013	< 0.001	12.5	+/- 1.2
1144 Beechwood Rd	24/04/2013	0.00907	29.3	+/- 2.2
1181 Beechwood Rd	24/04/2013	0.00203	18.2	+/- 1.5
1206 Beechwood Rd	24/04/2013	0.00456	35.3	+/- 2.5
1250 Beechwood Rd	24/04/2013	0.00709	21.8	+/- 1.7
1252 Beechwood Rd	24/04/2013	0.0178	29.3	+/- 2.1
1264 Beechwood Rd	24/04/2013	0.0143	32.5	+/- 2.4

[1] TU = Tritium Unit: 1 TU = 3.221 Picocurries/L; 1 TU = 0.11919 Becquerels/L

Accuracy ranges (+/-) provided by University of Waterloo Environmental Isotope Laboratory

Table 8: Surface Water Characteristics - April 25, 2013

Date	Parameter		Surface Water Station						
			S2	S3	S4R	S5	S6	S7	S8R
25-Apr-13	Velocity:	m/s	0.11	0.31	NM	0.18	0.37	0.27	0.17
	Depth:	m	0.55	0.36	0.07	0.13	0.34	0.20	0.1
	Width:	m	2.80	0.80	0.86	1.80	2.10	4.30	0.9
	Estimated Flow Rate:	m^3/s	0.17	0.09	NM	0.04	0.26	0.23	0.02

NM: Not Measured (flow was insufficient to register on the flow meter - very small flow observed)

Table 9: Surface Water Quality Results - April 25, 2013

			Marysville Creek				Beechwood Ditch		
			S2	S3	S6	S7	S5	S4R	S8R
			(upstream)	(downstream)	(downstream)	(downstream)	(upstream)	(downstream)	(downstream)
		Date	25/04/2013	25/04/2013	25/04/2013	25/04/2013	25/04/2013	25/04/2013	25/04/2013
Reading Name	Units	PWQO							
Inorganic and General Parameters									
Alkalinity	mg/L		180	190	180	180	200	240	200
Ammonia	mg/L		0.21	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
Ammonia (unionized)	mg/L	0.02	0.00031	<0.00023	<0.00029	<0.00032	<0.00071	<0.00066	<0.00052
Arsenic	mg/L	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Barium	mg/L		0.04	0.04	0.035	0.035	0.044	0.036	0.05
Biochemical Oxygen Demand	mg/L		< 2	< 2	< 2	< 2	< 2	3	< 2
Boron	mg/L	0.2	0.036	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.031
Cadmium	mg/L	0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Calcium	mg/L		68	67	62	63	68	80	67
Chemical Oxygen Demand	mg/L		25	15	18	19	23	20	25
Chloride	mg/L		22	17	16	17	4	5	38
Chromium	mg/L	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cobalt	mg/L	0.0009	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Conductivity	µS/cm		438	427	421	426	406	483	561
Copper	mg/L	0.005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Cyanide (free)	mg/L	0.005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Hardness	mg/L		200	200	200	200	210	240	220
Iron	mg/L	0.3	< 0.1	< 0.1	< 0.1	0.1	*0.47*	0.27	0.12
Lead	mg/L	0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Magnesium	mg/L		9.6	10	9.3	9.2	12	13	14
Mercury	mg/L	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Nickel	mg/L	0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Nitrate	mg/L		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nitrite	mg/L		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenols	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Phosphorus (total)	mg/L	0.03	0.027	0.016	0.017	0.015	*0.089*	*0.049*	*0.057*
Potassium	mg/L		2.3	1.9	1.7	1.7	2.1	2.9	4.1
Sodium	mg/L		13	11	9.9	10	5	9.3	29
Sulphate	mg/L		10	13	12	12	10	14	24
Total Dissolved Solids	mg/L		250	256	238	270	206	294	316
Total Kjeldahl Nitrogen	mg/L		0.8	0.9	< 0.7	< 0.7	0.9	1.1	1.4
Total Suspended Solids	mg/L		3	2	< 1	2	7	47	7
Zinc	mg/L	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PAHs									
1-Methylnaphthalene	mg/L	0.002	< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
2-Methylnaphthalene	mg/L	0.002	< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Acenaphthene	mg/L		< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Acenaphthylene	mg/L		< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Anthracene	mg/L	0.0000008	< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Benzo(a)anthracene	mg/L	0.0000004	< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Benzo(a)pyrene	mg/L		< 0.00001	< 0.00001	< 0.00001	< 0.00001			< 0.00001
Benzo(b)fluoranthene	mg/L		< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Benzo(g,h,i)perylene	mg/L	2E-08	< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Benzo(k)fluoranthene	mg/L	0.0000002	< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Biphenyl	mg/L	0.0002	< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Chrysene	mg/L	0.0000001	< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Dibenzo(a,h)anthracene	mg/L		< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Fluoranthene	mg/L	0.0000008	< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Fluorene	mg/L	0.0002	< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Indeno(1,2,3-cd)pyrene	mg/L		< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Naphthalene	mg/L	0.007	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Phenanthrene	mg/L	0.00003	< 0.00003	< 0.00003	< 0.00003	< 0.00003			< 0.00003
Pyrene	mg/L		< 0.00005	< 0.00005	< 0.00005	< 0.00005			< 0.00005
Field Measured									
Conductivity (Field)	µS/cm		373	351	366	355	378	479	535
Dissoved Oxygen (Field)	mg/L		13.47	13.51	13.07	12.21	11.42	10.13	NM
pH (Field)	unitless	6.5-8.5	6.78	6.89	6.91	7.00	7.22	7.17	7.09
Temperature (Field)	°C		13.54	11.04	13.15	11.61	15.73	16.12	15.47

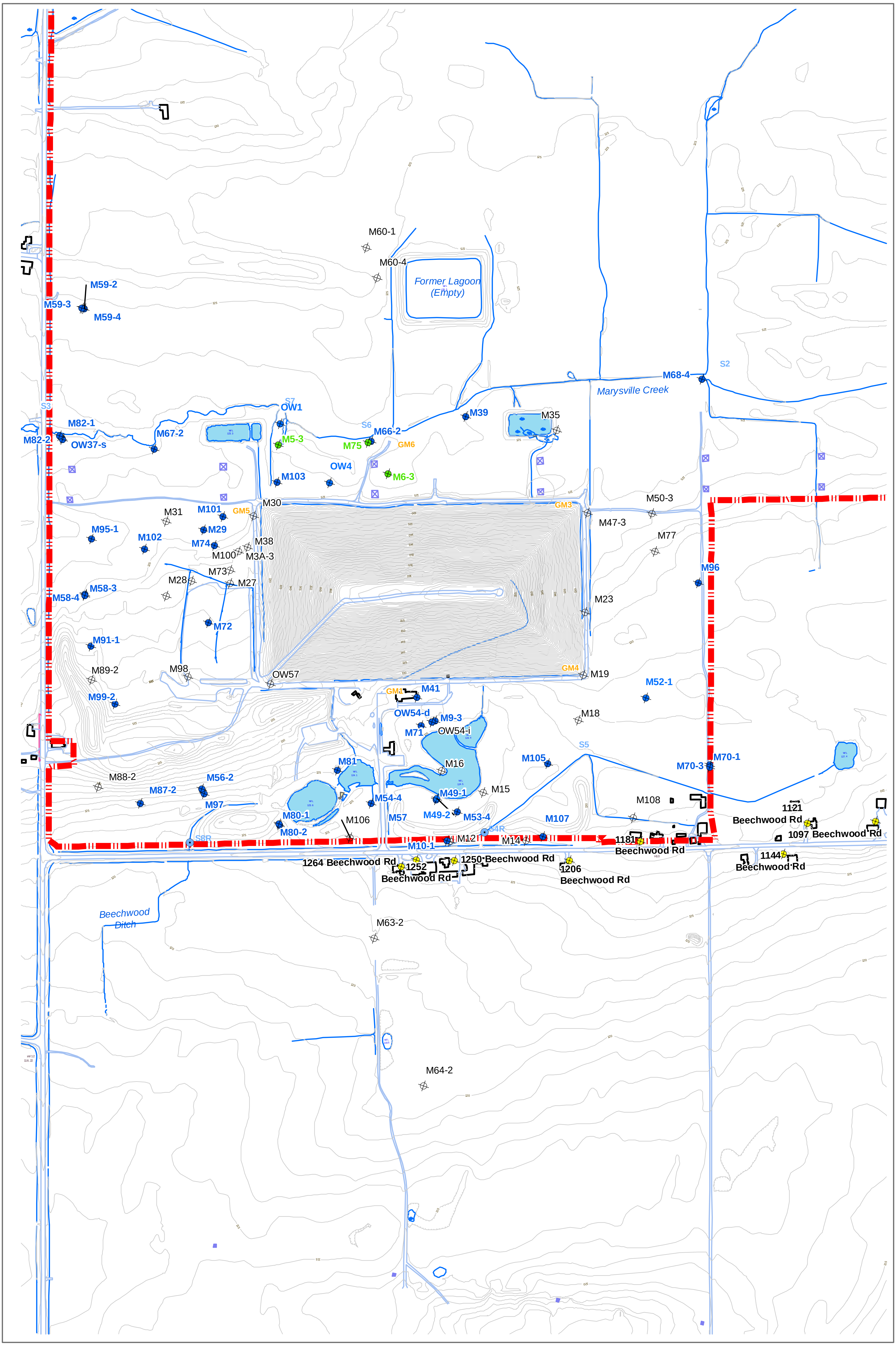
Exceeds PWQO

Table 10: Subsurface Gas Monitoring Results - April 24, 2013

Gas Monitor	Location	Reading (%LEL)*
GM1	North of garage area, south of waste mound	1
GM3	North-east corner of waste mound	1
GM4-1	South-east corner of waste mound	1
GM4-2		1
GM5	North-west corner of waste mound	1
GM6	North of waste mound	1

* The instrument detection limit was 1% LEL

FIGURES



WASTE MANAGEMENT
RICHMOND LANDFILL
SPRING 2013 SEMI-ANNUAL REPORT

Figure 1:
Site Plan and Monitoring Locations

M35	Monitoring Well Used to Measure Water Level (Not Sampled)
M53-4	Monitoring Well Used to Measure Water Level and Sampled for Chemistry
M5-3	Monitoring Well Sampled for Chemistry (Not used for Water Levels)
1097 Beechwood	Domestic Water Supply Well Sampled for Chemistry
GM1	Gas Monitoring Well
S2	Surface Water Monitoring Location
	Property Boundary

Project : K-B11166-00-02
Data Source: WM Canada, WESA, HPA Ltd. Base Mapping 2009
Date: May 2013

0 12.5 25 50 75 100
Metres

Prepared by:
WESA Geomatics

Units:
UTM NAD 83 Zone 18

Scale: 1:6000

WESA
a BluMetric company

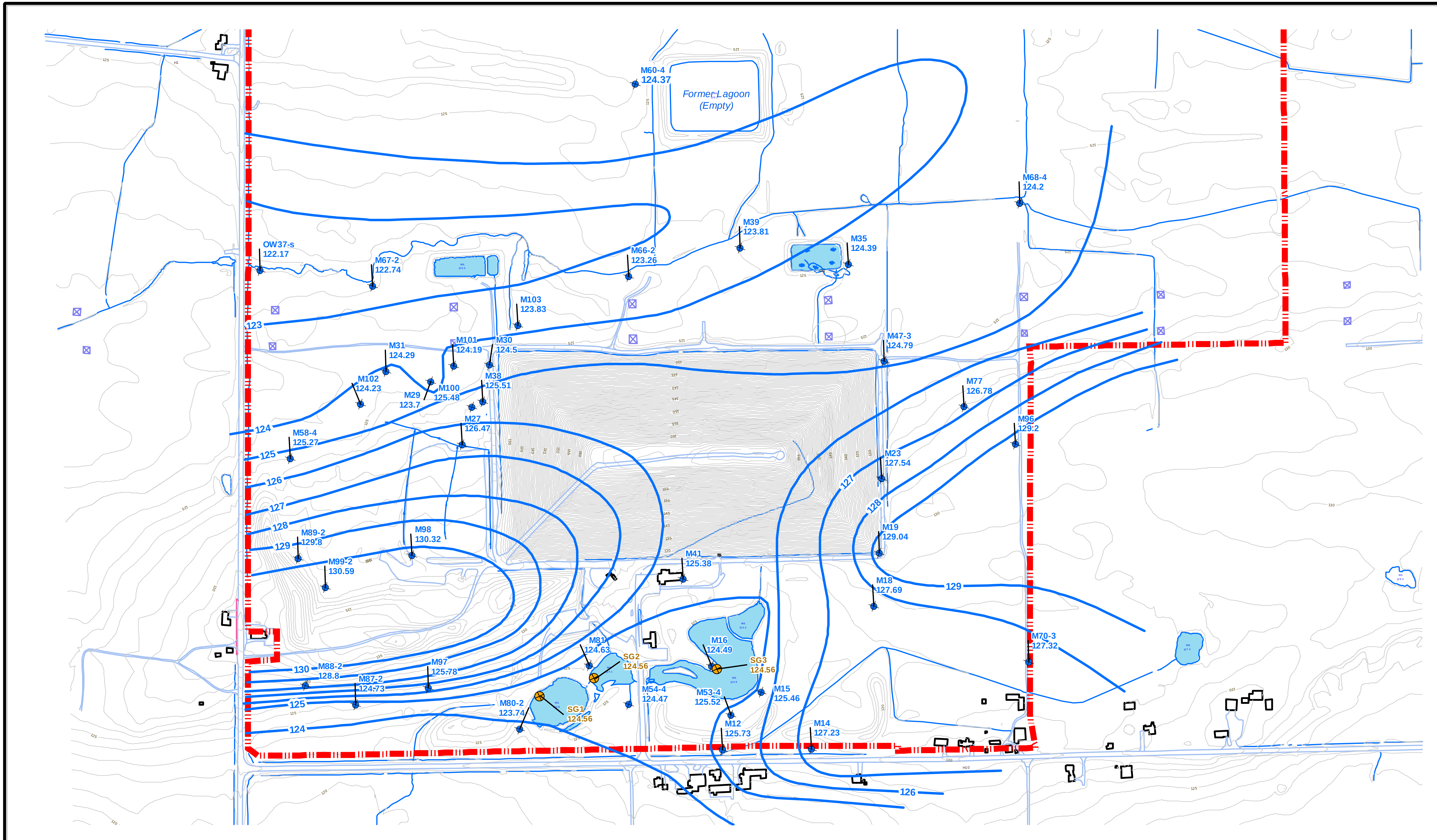


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Figure 2:
Shallow Groundwater Flow Zone Potentiometric Surface - April 19, 2013

M58-4 Shallow Groundwater Zone Elevation Monitor
Pond Elevation
Hydro Tower
Topographic Contour Lines
Surface Water
Potentiometric Surface (masl)
Property Boundary

Project : K-B11166-00-02
Data Source: WM Canada, WESA, HPA Ltd. Base Mapping 2009
Date: May 2013

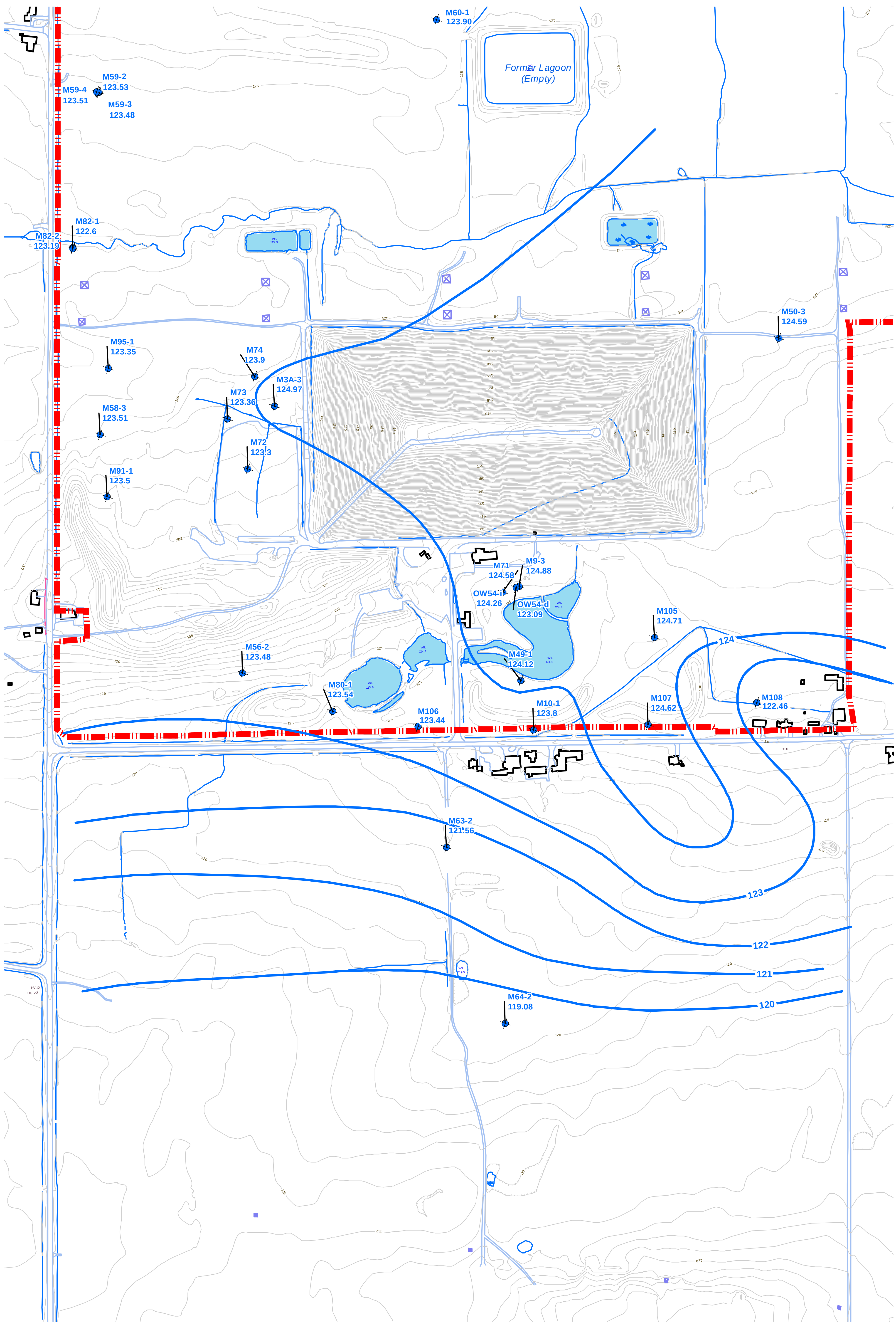
Prepared by:
WESA Geomatics

Units:
UTM NAD 83 Zone 18

Scale: 1:5000

0 12.5 25 50 75 100
Meters

WESA
a BluMetric company



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SPRING 2013 SEMI-ANNUAL REPORT

M58-3 Intermediate Groundwater Zone Elevation Monitor
Topographic Contour Lines
Potentiometric Surface (masl)
Hydro Tower
Surface Water
Property Boundary

Project : K-B11166-00-02
Data Source: WM Canada, WESA, HPA Ltd. Base Mapping 2009
Date: May 2013

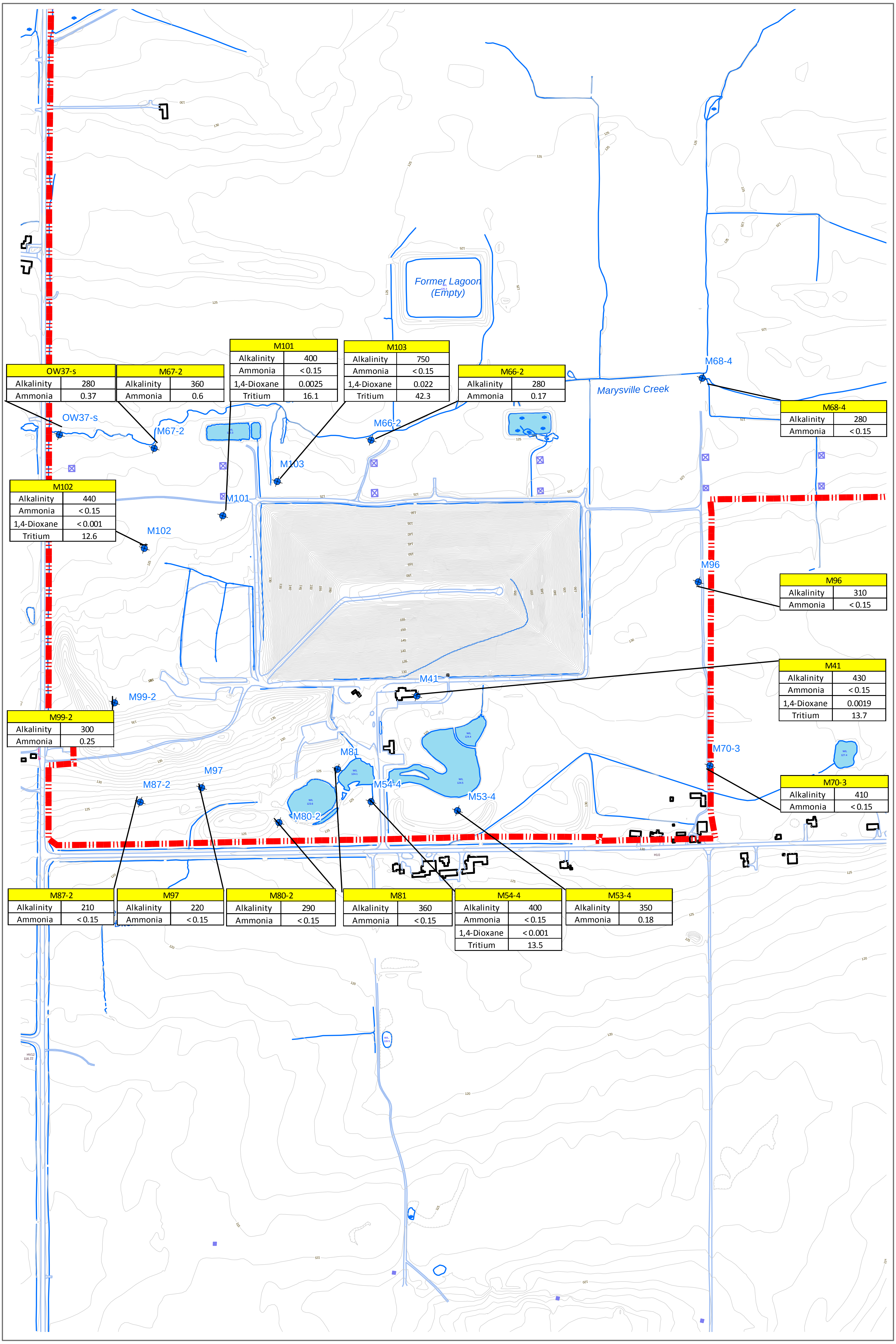
50 25 0 50 100
Meters

Prepared by:
WESA Geomatics

Units:
UTM NAD 83 Zone 18

Scale: 1:5000

Figure 3:
Intermediate Bedrock Groundwater Flow Zone Potentiometric Surface - April 19, 2013



WASTE MANAGEMENT
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Figure 4:
Shallow Flow Zone Concentrations
Spring 2013 Semi-Annual Monitoring Report

Groundwater samples were collected as part of the Spring 2013 monitoring event, during the period from April 23 – May 1, 2013

Legend

M53-4 Shallow Monitoring Well Sampled for Chemistry

Property Boundary

Parameter	Units
Alkalinity	mg/L CaCO3
Ammonia	mg/L
1,4-Dioxane	mg/L
Tritium	TU*

* Tritium is reported in Tritium Units.

Project : K-B11166-00-05
Data Source: WM Canada, WESA, HPA Ltd. Base Mapping 2009
Date: February 2013

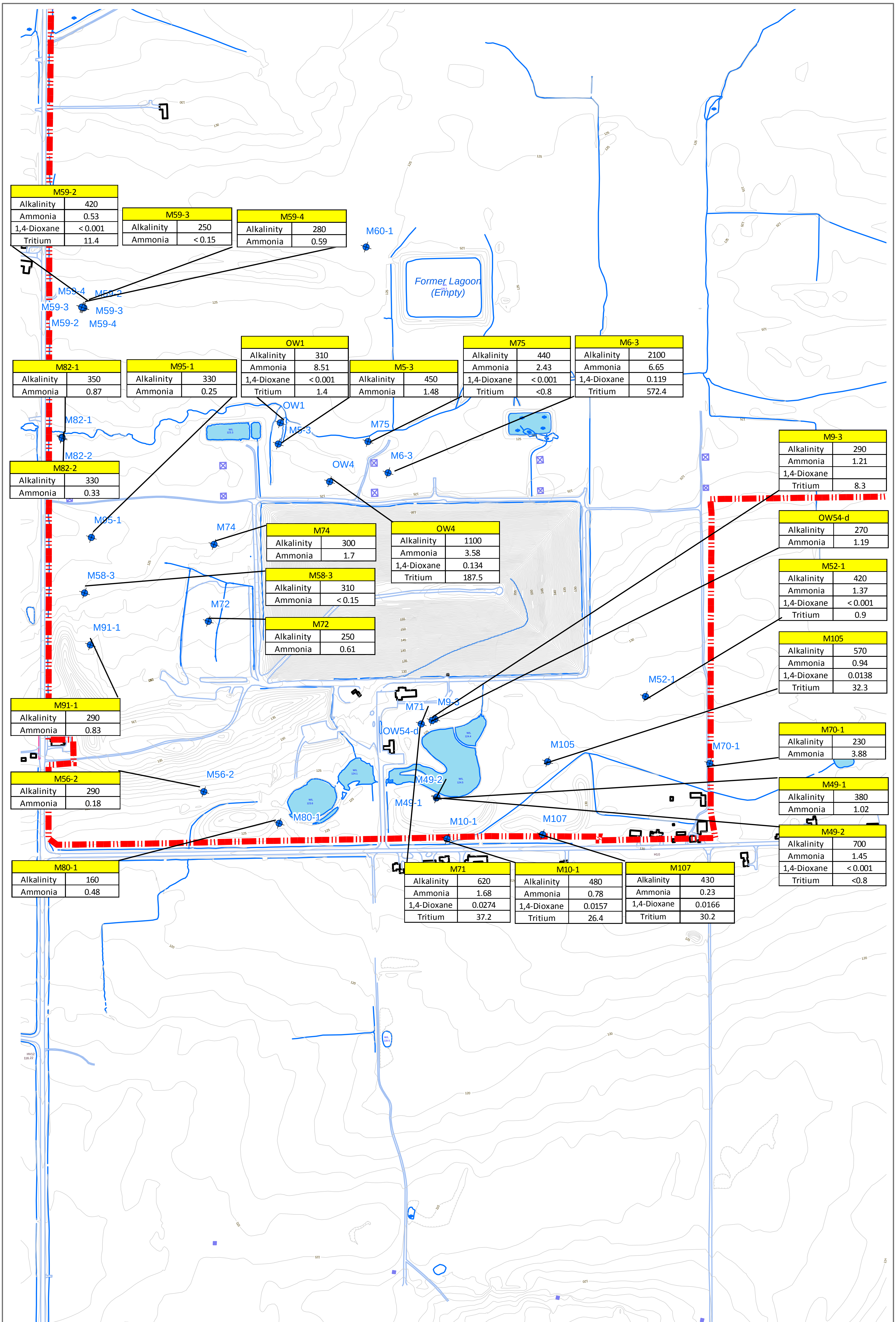
0 12.5 25 50 75 100
Metres

Prepared by:
WESA Geomatics

Units:
UTM NAD 83 Zone 18

Scale: 1:6000

WESA
a BluMetric company



WASTE MANAGEMENT
RICHMOND LANDFILL

Figure 5:
Intermediate Flow Zone Concentrations
Spring 2013 Semi-Annual Monitoring Report

Groundwater samples were collected as part of the Spring 2013 monitoring event, during the period from April 23 – May 1, 2013

Legend

M53-4 Intermediate Monitoring Well Sampled for Chemistry

Property Boundary

Parameter	Units
Alkalinity	mg/L CaCO3
Ammonia	mg/L
1,4-Dioxane	mg/L
Tritium	TU*

* Tritium is reported in Tritium Units.

Project : K-B11166-00-05
Data Source: WM Canada, WESA, HPA Ltd. Base Mapping 2009
Date: February 2013

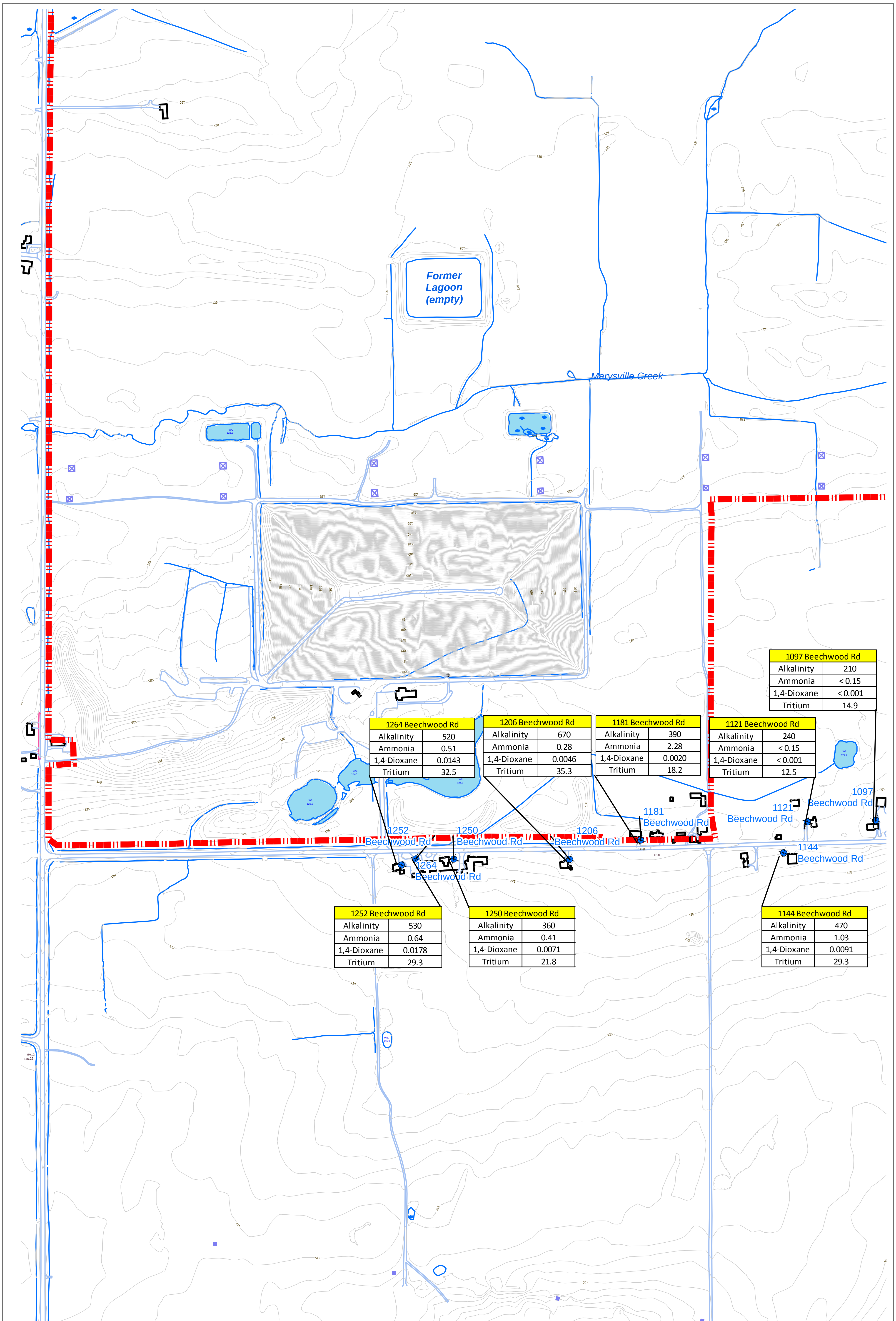
0 12.5 25 50 75 100
Metres

Prepared by:
WESA Geomatics

Units:
UTM NAD 83 Zone 18

Scale: 1:6000

WESA
a BluMetric company



1097 Beechwood Rd	
Alkalinity	210
Ammonia	< 0.15
1,4-Dioxane	< 0.001
Tritium	14.9

1264 Beechwood Rd	
Alkalinity	520
Ammonia	0.51
1,4-Dioxane	0.0143
Tritium	32.5

1206 Beechwood Rd	
Alkalinity	670
Ammonia	0.28
1,4-Dioxane	0.0046
Tritium	35.3

1181 Beechwood Rd	
Alkalinity	390
Ammonia	2.28
1,4-Dioxane	0.0020
Tritium	18.2

1121 Beechwood Rd	
Alkalinity	240
Ammonia	< 0.15
1,4-Dioxane	< 0.001
Tritium	12.5

1252 Beechwood Rd	
Alkalinity	530
Ammonia	0.64
1,4-Dioxane	0.0178
Tritium	29.3

1250 Beechwood Rd	
Alkalinity	360
Ammonia	0.41
1,4-Dioxane	0.0071
Tritium	21.8

1144 Beechwood Rd	
Alkalinity	470
Ammonia	1.03
1,4-Dioxane	0.0091
Tritium	29.3

WASTE MANAGEMENT
RICHMOND LANDFILL
Figure 6:
Domestic Well Concentrations
Spring 2013 Semi-Annual Monitoring Report

Groundwater samples were collected as part of the
Spring 2013 monitoring event, during the period from April 23 – May 1, 2013

Legend

M53-4 Domestic Well Sampled for Chemistry

Property Boundary

Parameter	Units
Alkalinity	mg/L CaCO3
Ammonia	mg/L
1,4-Dioxane	mg/L
Tritium	TU*

* Tritium is reported in Tritium Units.

Project : K-B11166-00-05
Data Source: WM Canada, WESA, HPA Ltd. Base Mapping 2009
Date: February 2013

0 12.5 25 50 75 100
Metres

Prepared by:
WESA Geomatics

Units:
UTM NAD 83 Zone 18

Scale: 1:6000

WESA
a BluMetric company
WM WASTE MANAGEMENT

APPENDIX A

Monitoring Well Inventory

APPENDIX A - Monitoring Well Inventory

Monitoring Well	Easting	Northing
2054	335293	4902797
2055	335402	4902782
M3A-1	334990	4902928
M3A-2	334990	4902930
M3A-3	334990	4902930
M4-1	335006	4903036
M4-2	335006	4903038
M4-3	335006	4903038
M5-1	335003	4903162
M5-2	335003	4903163
M5-3	335003	4903163
M6-1	335200	4903172
M6-2	335201	4903174
M6-3	335201	4903174
M9-1	335410	4902787
M9-2	335410	4902789
M9-3	335410	4902789
M9R-1	335400	4902787
M10-1	335494	4902596
M10-2	335494	4902596
M10-3	335494	4902594
M12	335500	4902596
M14	335625	4902637
M15	335528	4902695
M16	335447	4902710
M18	335648	4902866
M19	335632	4902944
M23	335602	4903049
M27	334997	4902908
M28	334897	4902853
M29	334924	4902983
M30	334999	4903033
M31	334857	4902977
M35	335458	4903336
M38	335006	4902978
M39	335299	4903310
M41	335368	4902818
M42-1	335006	4903006
M42-2	335007	4903008
M42-3	335007	4903008
M43-1	335475	4902588
M43-2	335476	4902590
M43-3	335476	4902590
M45-1	334790	4904582
M45-2	334790	4904582
M45-3	334790	4904582
M46-1	335185	4903230
M46-2	335185	4903232
M47-1	335552	4903214
M47-2	335552	4903215
M47-3	335552	4903215
M48-1	334838	4902564
M48-2	334839	4902565
M48-3	334839	4902565

Monitoring Well	Easting	Northing
M49-1	335454	4902658
M49-2	335455	4902660
M49-3	335455	4902660
M50-1	335660	4903247
M50-2	335660	4903248
M50-3	335660	4903248
M51-1	335714	4903073
M51-2	335714	4903075
M51-3	335714	4903075
M52-1	335748	4902939
M52-2	335748	4902940
M52-3	335748	4902940
M53-1	335501	4902651
M53-2	335499	4902650
M53-3	335498	4902650
M53-4	335496	4902649
M54-1	335346	4902623
M54-2	335347	4902622
M54-3	335347	4902620
M54-4	335348	4902618
M55-1	334961	4903151
M55-2	334962	4903149
M55-3	334962	4903148
M55-4	334963	4903146
M56-1	335066	4902508
M56-2	335065	4902545
M57	335418	4902623
M58-1	334760	4902816
M58-2	334760	4902814
M58-3	334761	4902812
M58-4	334761	4902811
M59-1	334609	4903287
M59-2	334607	4903287
M59-3	334606	4903287
M59-4	334604	4903287
M60-1	335044	4903538
M60-3	335079	4903494
M60-4	335077	4903494
M61-1	334457	4903750
M61-2	334456	4903749
M61-3	334455	4903748
M61-4	334454	4903747
M62-1	335166	4904438
M62-2	335168	4904441
M62-3	335166	4904441
M62-4	335165	4904440
M63-1	335424	4902393
M63-2	335425	4902394
M64-1	335585	4902174
M64-2	335585	4902176
M65-1	335297	4903314
M65-2	335298	4903316
M66-1	335154	4903218
M66-2	335155	4903219

Monitoring Well	Easting	Northing
M67-1	334799	4903089
M67-2	334799	4903090
M68-1	335670	4903504
M68-2	335671	4903502
M68-3	335671	4903500
M68-4	335672	4903499
M69-1	335062	4904299
M69-2	335063	4904298
M69-3	335063	4904296
M69-4	335064	4904295
M70-1	335890	4902862
M70-2	335891	4902860
M70-3	335891	4902858
M71	335390	4902773
M72	334981	4902831
M73	334931	4902891
M74	334950	4902962
M75	335151	4903215
M76	335675	4903217
M77	335685	4903188
M78	335391	4902776
M79	335673	4903215
M80-1	335207	4902532
M80-2	335206	4902534
M81	335275	4902654
M82-1	334640	4903060
M82-2	334641	4903058
M83	335169	4903156
M84	334702	4903072
M85	334999	4903208
M86	335077	4903195
M87-1	334959	4902493
M87-2	334965	4902495
M88-1	334883	4902497
M88-2	334885	4902499
M89-1	334815	4902673
M89-2	334818	4902674
M90-1	334520	4903845
M90-2	334522	4903843
M91-1	334798	4902729
M91-2	334792	4902734
M93	335006	4903908
M94-1	335497	4903519
M94-2	335486	4903526
M95-1	334743	4902908
M95-2	334740	4902917
M96	335774	4903158
M97	335059	4902551
M98	334976	4902730
M99-1	334869	4902646
M99-2	334869	4902646
M100	334994	4902965
M101	334949	4903015
M102	334836	4902919

APPENDIX A - Monitoring Well Inventory

Monitoring Well	Easting	Northing
M103	335021	4903101
M104	335150	4903152
M105	335620	4902778
M106	335331	4902549
M107	335650	4902654
M108	335791	4902733
M109-1	335405	4902844
M109-2	335407	4902840
M110-1	335543	4902883
M110-2	335546	4902884
M111-1	335250	4902774
M111-2	335254	4902774
M112-1	335274	4902692
M112-2	335277	4902693
M113-1	335123	4902751
M113-2	335119	4902750
M114-1	335437	4902530
M114-2	335439	4902528
M115-1	335489	4902561
M115-2	335490	4902558
M116	335480	4902494
M117	335586	4902525
M121	335529	4902337
M122	335742	4902433
M123	335905	4902479
M125	335561	4902368
OW1	334995	4903200
OW4	335108	4903128
OW5	335113	4903134
OW36	334799	4903100
OW37-d	334630	4903063
OW37-s	334634	4903062
OW54-d	335406	4902785
OW54-i	335406	4902785
OW54-s	335406	4902785
OW55-d	335376	4903186
OW55-i	335376	4903186
OW55-s	335376	4903184
OW56-d	335106	4903131
OW56-i	335106	4903131
OW56-s	335106	4903129
OW57	335117	4902762
PW1	335465	4902639
PW2	334988	4903095
PW3	335620	4902778
PW4	335626	4902775
PW5	335066	4902547

APPENDIX B

Results from Analytical Quality Assurance / Quality Control (QA/QC) Program

Summary of Results with Relative Percent Difference (RPD[1]) greater than 20%

Location	Parameter	Unit	Regular Sample	Field Duplicate	RPD (%)	MDL[2]	Comment
M105	Phenols	mg/L	0.0021	0.0035	50.00	0.001	Less than ~5 x MDL
M81	Phosphorous (total)	mg/L	0.03	0.04	28.57	0.03	Less than ~5 x MDL
S3	Chemical Oxygen Demand	mg/L	15	19	23.53	0.0001	
S3	Total Kjeldahl Nitrogen	mg/L	0.9	0.7	25.00	0.7	Less than ~5 x MDL

Note 1: RPD (%) = 100 * ABS (Regular Sample - Duplicate Sample) / ([Regular Sample + Duplicate Sample] / 2)
Note 2: MDL = Laboratory Method Detection Limit

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013

Parameter	Units	M82-2 (Regular Sample)	DUP1-S13 (Field Duplicate)	RPD (%)
1,1,1,2-Tetrachloroethane	mg/L	<0.0002	<0.0002	0.00
1,1,1-Trichloroethane	mg/L	<0.0001	<0.0001	0.00
1,1,2,2-Tetrachloroethane	mg/L	<0.0002	<0.0002	0.00
1,1,2-Trichloroethane	mg/L	<0.0002	<0.0002	0.00
1,1-Dichloroethane	mg/L	<0.0001	<0.0001	0.00
1,1-Dichloroethylene	mg/L	<0.0001	<0.0001	0.00
1,2-Dibromoethane	mg/L	<0.0002	<0.0002	0.00
1,2-Dichlorobenzene (o)	mg/L	<0.0002	<0.0002	0.00
1,2-Dichloroethane	mg/L	<0.0002	<0.0002	0.00
1,2-Dichloropropane	mg/L	<0.0001	<0.0001	0.00
1,3,5-Trimethylbenzene	mg/L	<0.0002	<0.0002	0.00
1,3-Dichlorobenzene (m)	mg/L	<0.0002	<0.0002	0.00
1,4-Dichlorobenzene (p)	mg/L	<0.0002	<0.0002	0.00
Alkalinity	mg/L	<0.01	<0.01	0.00
Ammonia	mg/L	330	330	0.00
Arsenic	mg/L	0.33	0.32	3.08
Barium	mg/L	<0.001	<0.001	0.00
Benzene	mg/L	0.13	0.13	0.00
Biochemical Oxygen Demand	mg/L	<0.0001	<0.0001	0.00
Boron	mg/L	<2	<2	0.00
Bromodichloromethane	mg/L	0.15	0.15	0.00
Bromoform	mg/L	<0.0001	<0.0001	0.00
Bromomethane	mg/L	<0.0002	<0.0002	0.00
Cadmium	mg/L	<0.0005	<0.0005	0.00
Calcium	mg/L	<0.0001	<0.0001	0.00
Carbon Tetrachloride	mg/L	100	110	9.52
Chemical Oxygen Demand	mg/L	<0.0001	<0.0001	0.00
Chloride	mg/L	6	5.5	8.70
Chlorobenzene	mg/L	25	26	3.92
Chlorodibromomethane	mg/L	<0.0001	<0.0001	0.00
Chloroethane	mg/L	<0.0002	<0.0002	0.00
Chloroform	mg/L	<0.0001	<0.0001	0.00
Chloromethane	mg/L	<0.0005	<0.0005	0.00
Chromium	mg/L	<0.005	<0.005	0.00
Cis-1,2-Dichloroethylene	mg/L	<0.0001	<0.0001	0.00
Cis-1,3-Dichloropropylene	mg/L	<0.0002	<0.0002	0.00
Conductivity	µS/cm	818	814	0.49

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013 (continued)

Parameter	Units	M82-2 (Regular Sample)	DUP1-S13 (Field Duplicate)	RPD (%)
Copper	mg/L	<0.001	<0.001	0.00
Dibromochloromethane	mg/L	<0.0002	<0.0002	0.00
Dichloromethane	mg/L	<0.0005	<0.0005	0.00
Dissolved Organic Carbon	mg/L	2.9	2.7	7.14
Ethylbenzene	mg/L	<0.0001	<0.0001	0.00
Hardness	mg/L	380	390	2.60
Iron	mg/L	<0.1	<0.1	0.00
Lead	mg/L	<0.0005	<0.0005	0.00
m+p-Xylene	mg/L	<0.0001	<0.0001	0.00
Magnesium	mg/L	30	29	3.39
Manganese	mg/L	0.019	0.019	0.00
Mercury	mg/L	<0.0002	<0.0002	0.00
Methyl Ethyl Ketone	mg/L	<0.005	<0.005	0.00
Methyl Tert Butyl Ether	mg/L	<0.0002	<0.0002	0.00
Naphthalene	mg/L	<0.0005	<0.0005	0.00
Nitrate	mg/L	<0.1	<0.1	0.00
Nitrate + Nitrite	mg/L	<0.1	<0.1	0.00
Nitrite	mg/L	<0.01	<0.01	0.00
o-Xylene	mg/L	<0.0001	<0.0001	0.00
pH (Lab)	unitless	8.01	8.03	0.25
Phenols	mg/L	<0.001	<0.001	0.00
Phosphorus (total)	mg/L	<0.03	<0.03	0.00
Potassium	mg/L	3.7	3.9	5.26
Sodium	mg/L	19	19	0.00
Styrene	mg/L	<0.0002	<0.0002	0.00
Sulphate	mg/L	69	71	2.86
Tetrachloroethylene	mg/L	<0.0001	<0.0001	0.00
Toluene	mg/L	<0.0002	<0.0002	0.00
Total Dissolved Solids	mg/L	500	470	6.19
Total Kjeldahl Nitrogen	mg/L	<0.7	<0.7	0.00
Total Xylenes	mg/L	<0.0001	<0.0001	0.00
Trans-1,2-dichloroethylene	mg/L	<0.0001	<0.0001	0.00
Trans-1,3-dichloropropene	mg/L	<0.0002	<0.0002	0.00
Trichloroethylene	mg/L	<0.0001	<0.0001	0.00
Trichlorofluoromethane	mg/L	<0.0002	<0.0002	0.00
Vinyl Chloride	mg/L	<0.0002	<0.0002	0.00
Zinc	mg/L	<0.005	<0.005	0.00

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013

Parameter	Units	M58-3 (Regular Sample)	DUP2-S13 (Field Duplicate)	RPD (%)
1,1,1,2-Tetrachloroethane	mg/L	<0.0002	<0.0002	0.00
1,1,1-Trichloroethane	mg/L	<0.0001	<0.0001	0.00
1,1,2,2-Tetrachloroethane	mg/L	<0.0002	<0.0002	0.00
1,1,2-Trichloroethane	mg/L	<0.0002	<0.0002	0.00
1,1-Dichloroethane	mg/L	<0.0001	<0.0001	0.00
1,1-Dichloroethylene	mg/L	<0.0001	<0.0001	0.00
1,2-Dibromoethane	mg/L	<0.0002	<0.0002	0.00
1,2-Dichlorobenzene (o)	mg/L	<0.0002	<0.0002	0.00
1,2-Dichloroethane	mg/L	<0.0002	<0.0002	0.00
1,2-Dichloropropane	mg/L	<0.0001	<0.0001	0.00
1,3-Dichlorobenzene (m)	mg/L	<0.0002	<0.0002	0.00
1,4-Dichlorobenzene (p)	mg/L	<0.0002	<0.0002	0.00
Acetone	mg/L	<0.01	<0.01	0.00
Alkalinity	mg/L	310	310	0.00
Ammonia	mg/L	<0.15	<0.15	0.00
Arsenic	mg/L	<0.001	<0.001	0.00
Barium	mg/L	0.15	0.15	0.00
Benzene	mg/L	<0.0001	<0.0001	0.00
Biochemical Oxygen Demand	mg/L	<2	<2	0.00
Boron	mg/L	<0.01	<0.01	0.00
Bromodichloromethane	mg/L	<0.0001	<0.0001	0.00
Bromoform	mg/L	<0.0002	<0.0002	0.00
Bromomethane	mg/L	<0.0005	<0.0005	0.00
Cadmium	mg/L	<0.0001	<0.0001	0.00
Calcium	mg/L	94	94	0.00
Carbon Tetrachloride	mg/L	<0.0001	<0.0001	0.00
Chemical Oxygen Demand	mg/L	5.2	<4	0.00
Chloride	mg/L	4	4	0.00
Chlorobenzene	mg/L	<0.0001	<0.0001	0.00
Chlorodibromomethane	mg/L	<0.0002	<0.0002	0.00
Chloroethane	mg/L	<0.0001	<0.0001	0.00
Chloroform	mg/L	<0.0005	<0.0005	0.00
Chloromethane	mg/L	<0.005	<0.005	0.00
Chromium	mg/L	<0.0001	<0.0001	0.00
Cis-1,2-Dichloroethylene	mg/L	<0.0002	<0.0002	0.00
Cis-1,3-Dichloropropylene	mg/L	<0.0005	<0.0005	0.00
Conductivity	µS/cm	653	653	0.00

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013 (continued)

Parameter	Units	M58-3 (Regular Sample)	DUP2-S13 (Field Duplicate)	RPD (%)
Copper	mg/L	<0.001	<0.001	0.00
Dichlorodifluoromethane	mg/L	<0.0002	<0.0002	0.00
Dichloromethane	mg/L	<0.0005	<0.0005	0.00
Dissolved Organic Carbon	mg/L	1.2	1.1	8.70
Ethylbenzene	mg/L	<0.0001	<0.0001	0.00
Hardness	mg/L	370	380	2.67
Iron	mg/L	<0.1	<0.1	0.00
Lead	mg/L	<0.0005	<0.0005	0.00
m+p-Xylene	mg/L	<0.0001	<0.0001	0.00
Magnesium	mg/L	34	35	2.90
Manganese	mg/L	<0.002	<0.002	0.00
Mercury	mg/L	<0.0002	<0.0002	0.00
Methyl Ethyl Ketone	mg/L	<0.005	<0.005	0.00
Methyl Isobutyl Ketone	mg/L	<0.0002	<0.0002	0.00
Methyl Tert Butyl Ether	mg/L	<0.0005	<0.0005	0.00
Naphthalene	mg/L	<0.001	<0.001	0.00
Nitrate	mg/L	0.2	0.2	0.00
Nitrate + Nitrite	mg/L	0.2	0.2	0.00
Nitrite	mg/L	<0.01	<0.01	0.00
o-Xylene	mg/L	<0.0001	<0.0001	0.00
pH (Lab)	unitless	8.04	8.11	0.87
Phenols	mg/L	<0.001	<0.001	0.00
Phosphorus (total)	mg/L	<0.03	<0.03	0.00
Potassium	mg/L	1.7	1.7	0.00
Sodium	mg/L	5.2	5.3	1.90
Styrene	mg/L	<0.0002	<0.0002	0.00
Sulphate	mg/L	38	37	2.67
Tetrachloroethylene	mg/L	<0.0001	<0.0001	0.00
Toluene	mg/L	<0.0002	<0.0002	0.00
Total Dissolved Solids	mg/L	376	362	3.79
Total Kjeldahl Nitrogen	mg/L	<0.7	<0.7	0.00
Total Xylenes	mg/L	<0.0001	<0.0001	0.00
Trans-1,2-dichloroethylene	mg/L	<0.0001	<0.0001	0.00
Trans-1,3-dichloropropene	mg/L	<0.0002	<0.0002	0.00
Trichloroethylene	mg/L	<0.0001	<0.0001	0.00
Trichlorofluoromethane	mg/L	<0.0002	<0.0002	0.00
Vinyl Chloride	mg/L	<0.0002	<0.0002	0.00
Zinc	mg/L	<0.005	<0.005	0.00

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013

Parameter	Units	M56-2 (Regular Sample)	DUP3-S13 (Field Duplicate)	RPD (%)
1,1,1,2-Tetrachloroethane	mg/L	<0.0002	<0.0002	0.00
1,1,1-Trichloroethane	mg/L	<0.0001	<0.0001	0.00
1,1,2,2-Tetrachloroethane	mg/L	<0.0002	<0.0002	0.00
1,1,2-Trichloroethane	mg/L	<0.0002	<0.0002	0.00
1,1-Dichloroethane	mg/L	<0.0001	<0.0001	0.00
1,1-Dichloroethylene	mg/L	<0.0001	<0.0001	0.00
1,2-Dibromoethane	mg/L	<0.0002		0.00
1,2-Dichlorobenzene (o)	mg/L	<0.0002	<0.0002	0.00
1,2-Dichloroethane	mg/L	<0.0002	<0.0002	0.00
1,2-Dichloropropane	mg/L	<0.0001	<0.0001	0.00
1,3,5-Trimethylbenzene	mg/L	<0.0002	<0.0002	0.00
1,3-Dichlorobenzene (m)	mg/L	<0.0002	<0.0002	0.00
1,4-Dichlorobenzene (p)	mg/L	<0.0002	<0.0002	0.00
Acetone	mg/L	<0.01	<0.01	0.00
Alkalinity	mg/L	290	290	0.00
Ammonia	mg/L	0.18	0.18	0.00
Arsenic	mg/L	<0.001	<0.001	0.00
Barium	mg/L	0.19	0.18	5.41
Benzene	mg/L	<0.0001	<0.0001	0.00
Biochemical Oxygen Demand	mg/L	<2	<2	0.00
Boron	mg/L	0.062	0.062	0.00
Bromodichloromethane	mg/L	<0.0001	<0.0001	0.00
Bromoform	mg/L	<0.0002	<0.0002	0.00
Bromomethane	mg/L	<0.0005	<0.0005	0.00
Cadmium	mg/L	<0.0001	<0.0001	0.00
Calcium	mg/L	78	78	0.00
Carbon Tetrachloride	mg/L	<0.0001	<0.0001	0.00
Chemical Oxygen Demand	mg/L	5.8	6.3	8.26
Chloride	mg/L	21	21	0.00
Chlorobenzene	mg/L	<0.0001	<0.0001	0.00
Chlorodibromomethane	mg/L	<0.0002	<0.0002	0.00
Chloroethane	mg/L	<0.0001	<0.0001	0.00
Chloroform	mg/L	<0.0005	<0.0005	0.00
Chloromethane	mg/L	<0.005	<0.005	0.00
Chromium	mg/L	<0.0001	<0.0001	0.00
Cis-1,2-Dichloroethylene	mg/L	<0.0002	<0.0002	0.00
Cis-1,3-Dichloropropylene	mg/L	771	775	0.52

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013 (continued)

Parameter	Units	M56-2 (Regular Sample)	DUP3-S13 (Field Duplicate)	RPD (%)
Conductivity	µS/cm	<0.001	<0.001	0.00
Copper	mg/L	<0.0002	<0.0002	0.00
Dibromochloromethane	mg/L	<0.0005	<0.0005	0.00
Dichloromethane	mg/L	1.8	1.7	5.71
Dissolved Organic Carbon	mg/L	<0.0001	<0.0001	0.00
Ethylbenzene	mg/L	380	380	0.00
Hardness	mg/L	<0.1	<0.1	0.00
Iron	mg/L	<0.0005	<0.0005	0.00
Lead	mg/L	<0.0001	<0.0001	0.00
m+p-Xylene	mg/L	45	46	2.20
Magnesium	mg/L	0.055	0.054	1.83
Manganese	mg/L	<0.0002	<0.0002	0.00
Mercury	mg/L	<0.005	<0.005	0.00
Methyl Ethyl Ketone	mg/L	<0.0002	<0.0002	0.00
Methyl Tert Butyl Ether	mg/L	<0.0005	<0.0005	0.00
Naphthalene	mg/L	<0.1	<0.1	0.00
Nitrate	mg/L	<0.1	<0.1	0.00
Nitrate + Nitrite	mg/L	<0.01	<0.01	0.00
Nitrite	mg/L	<0.0001	<0.0001	0.00
o-Xylene	mg/L	8.16	8.15	0.12
pH (Lab)	unitless	<0.001	<0.001	0.00
Phenols	mg/L	<0.03	<0.03	0.00
Phosphorus (total)	mg/L	3.2	3.2	0.00
Potassium	mg/L	12	12	0.00
Sodium	mg/L	<0.0002	<0.0002	0.00
Styrene	mg/L	95	96	1.05
Sulphate	mg/L	<0.0001	<0.0001	0.00
Tetrachloroethylene	mg/L	<0.0002	<0.0002	0.00
Toluene	mg/L	472	480	1.68
Total Dissolved Solids	mg/L	<0.7	<0.7	0.00
Total Kjeldahl Nitrogen	mg/L	<0.0001	<0.0001	0.00
Trans-1,2-dichloroethylene	mg/L	<0.0001	<0.0001	0.00
Trans-1,3-dichloropropene	mg/L	<0.0002	<0.0002	0.00
Trichloroethylene	mg/L	<0.0001	<0.0001	0.00
Trichlorofluoromethane	mg/L	<0.0002	<0.0002	0.00
Vinyl Chloride	mg/L	<0.0002	<0.0002	0.00
Zinc	mg/L	<0.005	<0.005	0.00

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013

Parameter	Units	M105 (Regular Sample)	DUP4-S13 (Field Duplicate)	RPD (%)
1,1,1,2-Tetrachloroethane	mg/L	<0.0002	<0.0002	0.00
1,1,1-Trichloroethane	mg/L	<0.0001	<0.0001	0.00
1,1,2,2-Tetrachloroethane	mg/L	<0.0002	<0.0002	0.00
1,1,2-Trichloroethane	mg/L	<0.0002	<0.0002	0.00
1,1-Dichloroethane	mg/L	<0.0001	<0.0001	0.00
1,1-Dichloroethylene	mg/L	<0.0001	<0.0001	0.00
1,2-Dibromoethane	mg/L	<0.0002	<0.0002	0.00
1,2-Dichlorobenzene (o)	mg/L	<0.0002	<0.0002	0.00
1,2-Dichloroethane	mg/L	<0.0002	<0.0002	0.00
1,2-Dichloropropane	mg/L	<0.0001	<0.0001	0.00
1,3,5-Trimethylbenzene	mg/L	<0.0002	<0.0002	0.00
1,3-Dichlorobenzene (m)	mg/L	<0.0002	<0.0002	0.00
1,4-Dichlorobenzene (p)	mg/L	<0.0002	<0.0002	0.00
Acetone	mg/L	<0.01	<0.01	0.00
Alkalinity	mg/L	570	570	0.00
Ammonia	mg/L	0.94	0.94	0.00
Arsenic	mg/L	<0.001	<0.001	0.00
Barium	mg/L	0.21	0.21	0.00
Benzene	mg/L	<0.0001	<0.0001	0.00
Biochemical Oxygen Demand	mg/L	<2	<2	0.00
Boron	mg/L	0.34	0.32	6.06
Bromodichloromethane	mg/L	<0.0001	<0.0001	0.00
Bromoform	mg/L	<0.0002	<0.0002	0.00
Bromomethane	mg/L	<0.0005	<0.0005	0.00
Cadmium	mg/L	<0.0001	<0.0001	0.00
Calcium	mg/L	170	170	0.00
Carbon Tetrachloride	mg/L	<0.0001	<0.0001	0.00
Chemical Oxygen Demand	mg/L	23	25	8.33
Chloride	mg/L	160	160	0.00
Chlorobenzene	mg/L	<0.0001	<0.0001	0.00
Chloroethane	mg/L	0.0012	0.0013	8.00
Chloroform	mg/L	<0.0001	<0.0001	0.00
Chloromethane	mg/L	<0.0005	<0.0005	0.00
Chromium	mg/L	<0.005	<0.005	0.00
Cis-1,2-Dichloroethylene	mg/L	<0.0001	<0.0001	0.00
Cis-1,3-Dichloropropylene	mg/L	<0.0002	<0.0002	0.00
Conductivity	µS/cm	1600	1600	0.00

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013 (continued)

Parameter	Units	M105 (Regular Sample)	DUP4-S13 (Field Duplicate)	RPD (%)
Copper	mg/L	<0.001	<0.001	0.00
Dibromochloromethane	mg/L	<0.0002	<0.0002	0.00
Dichloromethane	mg/L	<0.0005	<0.0005	0.00
Dissolved Organic Carbon	mg/L	6.9	6.9	0.00
Ethylbenzene	mg/L	<0.0001	<0.0001	0.00
Hardness	mg/L	700	690	1.44
Iron	mg/L	<0.1	<0.1	0.00
Lead	mg/L	<0.0005	<0.0005	0.00
m+p-Xylene	mg/L	<0.0001	<0.0001	0.00
Magnesium	mg/L	68	68	0.00
Manganese	mg/L	0.0096	0.0094	2.11
Mercury	mg/L	<0.0002	<0.0002	0.00
Methyl Ethyl Ketone	mg/L	<0.005	<0.005	0.00
Methyl Tert Butyl Ether	mg/L	<0.0002	<0.0002	0.00
Naphthalene	mg/L	<0.0005	<0.0005	0.00
Nitrate	mg/L	<0.1	<0.1	0.00
Nitrate + Nitrite	mg/L	<0.1	<0.1	0.00
Nitrite	mg/L	<0.01	<0.01	0.00
o-Xylene	mg/L	<0.0001	<0.0001	0.00
pH (Lab)	unitless	7.75	7.81	0.77
Phenols	mg/L	0.0021	0.0035	50.00
Phosphorus (total)	mg/L	<0.03	<0.03	0.00
Potassium	mg/L	9.4	9.1	3.24
Sodium	mg/L	89	90	1.12
Styrene	mg/L	<0.0002	<0.0002	0.00
Sulphate	mg/L	12	12	0.00
Tetrachloroethylene	mg/L	<0.0001	<0.0001	0.00
Toluene	mg/L	<0.0002	<0.0002	0.00
Total Dissolved Solids	mg/L	944	898	4.99
Total Kjeldahl Nitrogen	mg/L	1.3	1.5	14.29
Total Xylenes	mg/L	<0.0001	<0.0001	0.00
Trans-1,2-dichloroethylene	mg/L	<0.0001	<0.0001	0.00
Trans-1,3-dichloropropene	mg/L	<0.0002	<0.0002	0.00
Trichloroethylene	mg/L	<0.0001	<0.0001	0.00
Trichlorofluoromethane	mg/L	<0.0002	<0.0002	0.00
Vinyl Chloride	mg/L	<0.0002	<0.0002	0.00
Zinc	mg/L	0.0094	<0.005	0.00

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013

Parameter	Units	MW81 (Regular Sample)	DUP5-S13 (Field Duplicate)	RPD (%)
1,1,1,2-Tetrachloroethane	mg/L	<0.0002	<0.0002	0.00
1,1,1-Trichloroethane	mg/L	<0.0001	<0.0001	0.00
1,1,2,2-Tetrachloroethane	mg/L	<0.0002	<0.0002	0.00
1,1,2-Trichloroethane	mg/L	<0.0002	<0.0002	0.00
1,1-Dichloroethane	mg/L	<0.0001	<0.0001	0.00
1,1-Dichloroethylene	mg/L	<0.0001	<0.0001	0.00
1,2-Dibromoethane	mg/L	<0.0002	<0.0002	0.00
1,2-Dichlorobenzene (o)	mg/L	<0.0002	<0.0002	0.00
1,2-Dichloroethane	mg/L	<0.0002	<0.0002	0.00
1,2-Dichloropropane	mg/L	<0.0001	<0.0001	0.00
1,3-Dichlorobenzene (m)	mg/L	<0.0002	<0.0002	0.00
1,4-Dichlorobenzene (p)	mg/L	<0.0002	<0.0002	0.00
Acetone	mg/L	<0.01	<0.01	0.00
Alkalinity	mg/L	360	350	2.82
Ammonia	mg/L	<0.15	<0.15	0.00
Arsenic	mg/L	<0.001	<0.001	0.00
Barium	mg/L	0.22	0.22	0.00
Benzene	mg/L	<0.0001	<0.0001	0.00
Biochemical Oxygen Demand	mg/L	<2	<2	0.00
Boron	mg/L	0.035	0.031	12.12
Bromodichloromethane	mg/L	<0.0001	<0.0001	0.00
Bromoform	mg/L	<0.0002	<0.0002	0.00
Bromomethane	mg/L	<0.0005	<0.0005	0.00
Cadmium	mg/L	<0.0001	<0.0001	0.00
Calcium	mg/L	110	110	0.00
Carbon Tetrachloride	mg/L	<0.0001	<0.0001	0.00
Chemical Oxygen Demand	mg/L	<4	<4	0.00
Chloride	mg/L	64	65	1.55
Chlorobenzene	mg/L	<0.0001	<0.0001	0.00
Chloroethane	mg/L	<0.0002	<0.0002	0.00
Chloroform	mg/L	<0.0001	<0.0001	0.00
Chloromethane	mg/L	<0.0005	<0.0005	0.00
Chromium	mg/L	<0.005	<0.005	0.00
Cis-1,2-Dichloroethylene	mg/L	<0.0001	<0.0001	0.00
Cis-1,3-Dichloropropylene	mg/L	<0.0002	<0.0002	0.00
Conductivity	µS/cm	935	936	0.11

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013 (continued)

Parameter	Units	M81 (Regular Sample)	DUP5-S13 (Field Duplicate)	RPD (%)
Copper	mg/L	<0.001	<0.001	0.00
Dibromochloromethane	mg/L	<0.0002	<0.0002	0.00
Dichloromethane	mg/L	<0.0005	<0.0005	0.00
Dissolved Organic Carbon	mg/L	1.6	1.5	6.45
Ethylbenzene	mg/L	<0.0001	<0.0001	0.00
Hardness	mg/L	490	470	4.17
Iron	mg/L	<0.1	<0.1	0.00
Lead	mg/L	<0.0005	<0.0005	0.00
m+p-Xylene	mg/L	<0.0001	<0.0001	0.00
Magnesium	mg/L	53	51	3.85
Manganese	mg/L	0.009	0.0085	5.71
Mercury	mg/L	<0.0002	<0.0002	0.00
Methyl Ethyl Ketone	mg/L	<0.005	<0.005	0.00
Methyl Tert Butyl Ether	mg/L	<0.0002	<0.0002	0.00
Naphthalene	mg/L	<0.0005	<0.0005	0.00
Nitrate	mg/L	<0.1	<0.1	0.00
Nitrate + Nitrite	mg/L	<0.1	<0.1	0.00
Nitrite	mg/L	<0.01	<0.01	0.00
o-Xylene	mg/L	<0.0001	<0.0001	0.00
pH (Lab)	unitless	7.91	7.89	0.25
Phenols	mg/L	<0.001	<0.001	0.00
Phosphorus (total)	mg/L	0.03	0.04	28.57
Potassium	mg/L	2.4	2.3	4.26
Sodium	mg/L	11	10	9.52
Styrene	mg/L	<0.0002	<0.0002	0.00
Sulphate	mg/L	43	44	2.30
Tetrachloroethylene	mg/L	<0.0001	<0.0001	0.00
Toluene	mg/L	<0.0002	<0.0002	0.00
Total Dissolved Solids	mg/L	592	586	1.02
Total Kjeldahl Nitrogen	mg/L	<0.7	<0.7	0.00
Total Xylenes	mg/L	<0.0001	<0.0001	0.00
Trans-1,2-dichloroethylene	mg/L	<0.0001	<0.0001	0.00
Trans-1,3-dichloropropene	mg/L	<0.0002	<0.0002	0.00
Trichloroethylene	mg/L	<0.0001	<0.0001	0.00
Trichlorofluoromethane	mg/L	<0.0002	<0.0002	0.00
Vinyl Chloride	mg/L	<0.0002	<0.0002	0.00
Zinc	mg/L	<0.005	<0.005	0.00

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013

Parameter	Units	S3 (Regular Sample)	DUP 6-213 (Field Duplicate)	RPD (%)
1-Methylnaphthalene	mg/L	<0.00005	<0.00005	0.00
2-Methylnaphthalene	mg/L	<0.00005	<0.00005	0.00
Acenaphthene	mg/L	<0.00005	<0.00005	0.00
Acenaphthylene	mg/L	<0.00005	<0.00005	0.00
Alkalinity	mg/L	190	180	5.41
Aluminum	mg/L	0.08	0.075	6.45
Ammonia	mg/L	<0.15	<0.15	0.00
Anthracene	mg/L	<0.00005	<0.00005	0.00
Antimony	mg/L	<0.001	<0.001	0.00
Arsenic	mg/L	<0.001	<0.001	0.00
Barium	mg/L	0.04	0.037	7.79
Benzo(a)anthracene	mg/L	<0.00005	<0.00005	0.00
Benzo(a)pyrene	mg/L	<0.00001	<0.00001	0.00
Benzo(b)fluoranthene	mg/L	<0.00005	<0.00005	0.00
Benzo(g,h,i)perylene	mg/L	<0.00005	<0.00005	0.00
Benzo(k)fluoranthene	mg/L	<0.00005	<0.00005	0.00
Beryllium	mg/L	<0.0006	<0.0006	0.00
Biochemical Oxygen Demand	mg/L	<2	<2	0.00
Biphenyl	mg/L	<0.00005	<0.00005	0.00
Boron	mg/L	<0.02	<0.02	0.00
Cadmium	mg/L	<0.0001	<0.0001	0.00
Calcium	mg/L	67	64	4.58
Chemical Oxygen Demand	mg/L	15	19	23.53
Chloride	mg/L	17	17	0.00
Chromium	mg/L	<0.005	<0.005	0.00
Chrysene	mg/L	<0.00005	<0.00005	0.00
Cobalt	mg/L	<0.0005	<0.0005	0.00
Conductivity	µS/cm	427	425	0.47
Copper	mg/L	<0.002	<0.002	0.00
Cyanide (free)	mg/L	<0.002	<0.002	0.00
Dibenzo(a,h)anthracene	mg/L	<0.00005	<0.00005	0.00
Fluoranthene	mg/L	<0.00005	<0.00005	0.00

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Duplicate vs. Regular Samples - Spring 2013

Parameter	Units	S3 (Regular Sample)	DUP 6-213 (Field Duplicate)	RPD (%)
Fluorene	mg/L	<0.00005	<0.00005	0.00
Hardness	mg/L	200	200	0.00
Indeno(1,2,3-cd)pyrene	mg/L	<0.00005	<0.00005	0.00
Iron	mg/L	<0.1	<0.1	0.00
Lead	mg/L	<0.0005	<0.0005	0.00
Magnesium	mg/L	10	9.3	7.25
Manganese	mg/L	0.007	0.006	15.38
Mercury	mg/L	<0.0002	<0.0002	0.00
Molybdenum	mg/L	<0.002	<0.002	0.00
Naphthalene	mg/L	<0.0005	<0.0005	0.00
Nickel	mg/L	<0.001	<0.001	0.00
Nitrate	mg/L	<0.1	<0.1	0.00
Nitrite	mg/L	<0.01	<0.01	0.00
Nitrite + Nitrate	mg/L	<0.1	<0.1	0.00
Phenanthrene	mg/L	<0.00003	<0.00003	0.00
Phenols	mg/L	<0.001	<0.001	0.00
Phosphorus (total)	mg/L	0.016	0.015	6.45
Potassium	mg/L	1.9	1.8	5.41
Pyrene	mg/L	<0.00005	<0.00005	0.00
Selenium	mg/L	<0.005	<0.005	0.00
Sodium	mg/L	11	10	9.52
Silver	mg/L	<0.0004	<0.0004	0.00
Strontium	mg/L	0.17	0.16	6.06
Sulphate	mg/L	13	13	0.00
Thallium	mg/L	<0.0002	<0.0002	0.00
Tin	mg/L	<0.002	<0.002	0.00
Titanium	mg/L	<0.005	<0.005	0.00
Total Dissolved Solids	mg/L	256	260	1.55
Total Kjeldahl Nitrogen	mg/L	0.9	0.7	25.00
Total Suspended Solids	mg/L	2	<1	0.00
Vanadium	mg/L	<0.001	<0.001	0.00
Zinc	mg/L	<0.01	<0.01	0.00

Note: Shaded value indicates RDP% higher than 20%

Detailed Results from Field Blank Sample - Spring 2013

Reading Name	Units	2013-04-23 Field Blank
1,1,1,2-Tetrachloroethane	mg/L	< 0.0002
1,1,1-Trichloroethane	mg/L	< 0.0001
1,1,2,2-Tetrachloroethane	mg/L	< 0.0002
1,1,2-Trichloroethane	mg/L	< 0.0002
1,1-Dichloroethane	mg/L	< 0.0001
1,1-Dichloroethylene	mg/L	< 0.0001
1,2-Dibromoethane	mg/L	< 0.0002
1,2-Dichlorobenzene (o)	mg/L	< 0.0002
1,2-Dichloroethane	mg/L	< 0.0002
1,2-Dichloropropane	mg/L	< 0.0001
1,3-Dichlorobenzene (m)	mg/L	< 0.0002
1,4-Dichlorobenzene (p)	mg/L	< 0.0002
Acetone	mg/L	< 0.01
Alkalinity	mg/L	1.5
Ammonia	mg/L	< 0.15
Arsenic	mg/L	< 0.001
Barium	mg/L	< 0.002
Benzene	mg/L	< 0.0001
Biochemical Oxygen Demand	mg/L	< 2
Boron	mg/L	< 0.01
Bromodichloromethane	mg/L	< 0.0001
Bromoform	mg/L	< 0.0002
Bromomethane	mg/L	< 0.0005
Cadmium	mg/L	< 0.0001
Calcium	mg/L	< 0.2
Carbon Tetrachloride	mg/L	< 0.0001
Chemical Oxygen Demand	mg/L	< 4
Chloride	mg/L	< 1
Chlorobenzene	mg/L	< 0.0001
Chloroethane	mg/L	< 0.0002
Chloroform	mg/L	< 0.0001
Chloromethane	mg/L	< 0.0005
Chromium	mg/L	< 0.005
Cis-1,2-Dichloroethylene	mg/L	< 0.0001
Cis-1,3-Dichloropropylene	mg/L	< 0.0002
Cobalt	mg/L	< 0.0005
Conductivity	µS/cm	1
Copper	mg/L	< 0.001

Detailed Results from Field Blank Sample - Spring 2013 (continued)

Parameter	Units	2013-04-23 Field Blank
Dibromochloromethane	mg/L	< 0.0002
Dichloromethane	mg/L	< 0.0005
Dissolved Organic Carbon	mg/L	1.7
Ethylbenzene	mg/L	< 0.0001
Hardness	mg/L	< 1
Iron	mg/L	< 0.1
Lead	mg/L	< 0.0005
m+p-Xylene	mg/L	< 0.0001
Magnesium	mg/L	< 0.05
Manganese	mg/L	< 0.002
Mercury	mg/L	< 0.0002
Methyl Ethyl Ketone	mg/L	< 0.005
Methyl Tert Butyl Ether	mg/L	< 0.0002
Naphthalene	mg/L	< 0.0005
Nickel	mg/L	< 0.001
Nitrate	mg/L	< 0.1
Nitrite	mg/L	< 0.01
Nitrite + Nitrate	mg/L	< 0.1
o-Xylene	mg/L	< 0.0001
pH (Lab)	unitless	6.33
Phenols	mg/L	< 0.001
Phosphorus (total)	mg/L	< 0.03
Potassium	mg/L	< 0.2
Sodium	mg/L	< 0.1
Styrene	mg/L	< 0.0002
Sulphate	mg/L	< 1
Tetrachloroethylene	mg/L	< 0.0001
Toluene	mg/L	< 0.0002
Total Dissolved Solids	mg/L	< 10
Total Kjeldahl Nitrogen	mg/L	< 0.7
Total Xylenes	mg/L	< 0.0001
Trans-1,2-dichloroethylene	mg/L	< 0.0001
Trans-1,3-dichloropropylene	mg/L	< 0.0002
Trichloroethylene	mg/L	< 0.0001
Trichlorofluoromethane	mg/L	< 0.0002
Vinyl Chloride	mg/L	< 0.0002
Zinc	mg/L	< 0.005

Detailed Results from Field Blank Sample - Spring 2013

Reading Name	Units	2013-04-26 Field Blank
1,1,1,2-Tetrachloroethane	mg/L	< 0.0002
1,1,1-Trichloroethane	mg/L	< 0.0001
1,1,2,2-Tetrachloroethane	mg/L	< 0.0002
1,1,2-Trichloroethane	mg/L	< 0.0002
1,1-Dichloroethane	mg/L	< 0.0001
1,1-Dichloroethylene	mg/L	< 0.0001
1,2-Dibromoethane	mg/L	< 0.0002
1,2-Dichlorobenzene (o)	mg/L	< 0.0002
1,2-Dichloroethane	mg/L	< 0.0002
1,2-Dichloropropane	mg/L	< 0.0001
1,3-Dichlorobenzene (m)	mg/L	< 0.0002
1,4-Dichlorobenzene (p)	mg/L	< 0.0002
Acetone	mg/L	< 0.01
Alkalinity	mg/L	< 1
Ammonia	mg/L	< 0.15
Arsenic	mg/L	< 0.001
Barium	mg/L	< 0.002
Benzene	mg/L	< 0.0001
Biochemical Oxygen Demand	mg/L	< 2
Boron	mg/L	< 0.01
Bromodichloromethane	mg/L	< 0.0001
Bromoform	mg/L	< 0.0002
Bromomethane	mg/L	< 0.0005
Cadmium	mg/L	< 0.0001
Calcium	mg/L	< 0.2
Carbon Tetrachloride	mg/L	< 0.0001
Chemical Oxygen Demand	mg/L	8.9
Chloride	mg/L	< 1
Chlorobenzene	mg/L	< 0.0001
Chloroethane	mg/L	< 0.001
Chloroform	mg/L	< 0.0001
Chloromethane	mg/L	< 0.0005
Chromium	mg/L	< 0.005
Cis-1,2-Dichloroethylene	mg/L	< 0.0001
Cis-1,3-Dichloropropylene	mg/L	< 0.0002
Conductivity	µS/cm	2
Copper	mg/L	< 0.001

Detailed Results from Field Blank Sample - Spring 2013 (continued)

Parameter	Units	2013-04-26 Field Blank
Dibromochloromethane	mg/L	< 0.0002
Dichlorodifluoromethane	mg/L	< 0.0005
Dichloromethane	mg/L	< 0.0005
Dissolved Organic Carbon	mg/L	0.7
Ethylbenzene	mg/L	< 0.0001
Hardness	mg/L	< 1
Hexane	mg/L	< 0.0005
Iron	mg/L	< 0.1
Lead	mg/L	< 0.0005
m+p-Xylene	mg/L	< 0.0001
Magnesium	mg/L	< 0.05
Manganese	mg/L	< 0.002
Mercury	mg/L	< 0.0002
Methyl Ethyl Ketone	mg/L	< 0.005
Methyl Isobutyl Ketone	mg/L	< 0.005
Methyl Tert Butyl Ether	mg/L	< 0.0002
Naphthalene	mg/L	< 0.0005
Nitrate	mg/L	< 0.1
Nitrite	mg/L	< 0.01
Nitrite + Nitrate	mg/L	< 0.1
o-Xylene	mg/L	< 0.0001
pH (Lab)	unitless	5.75
Phenols	mg/L	< 0.001
Phosphorus (total)	mg/L	< 0.03
Potassium	mg/L	< 0.2
Sodium	mg/L	< 0.1
Styrene	mg/L	< 0.0002
Sulphate	mg/L	< 1
Tetrachloroethylene	mg/L	< 0.0001
Toluene	mg/L	< 0.0002
Total Dissolved Solids	mg/L	< 10
Total Kjeldahl Nitrogen	mg/L	< 0.7
Total Xylenes	mg/L	< 0.0001
Trans-1,2-dichloroethylene	mg/L	< 0.0001
Trans-1,3-dichloropropylene	mg/L	< 0.0002
Trichloroethylene	mg/L	< 0.0001
Trichlorofluoromethane	mg/L	< 0.0002
Vinyl Chloride	mg/L	< 0.0002
Zinc	mg/L	< 0.005

Detailed Results from Trip Blank Sample - Spring 2013

Reading Name	Units	2013-04-26 Trip Blank
1,1,1,2-Tetrachloroethane	mg/L	< 0.0002
1,1,1-Trichloroethane	mg/L	< 0.0001
1,1,2,2-Tetrachloroethane	mg/L	< 0.0002
1,1,2-Trichloroethane	mg/L	< 0.0002
1,1-Dichloroethane	mg/L	< 0.0001
1,1-Dichloroethylene	mg/L	< 0.0001
1,2-Dibromoethane	mg/L	< 0.0002
1,2-Dichlorobenzene (o)	mg/L	< 0.0002
1,2-Dichloroethane	mg/L	< 0.0002
1,2-Dichloropropane	mg/L	< 0.0001
1,3-Dichlorobenzene (m)	mg/L	< 0.0002
1,4-Dichlorobenzene (p)	mg/L	< 0.0002
Acetone	mg/L	< 0.01
Alkalinity	mg/L	1.6
Ammonia	mg/L	< 0.15
Arsenic	mg/L	< 0.001
Barium	mg/L	< 0.002
Benzene	mg/L	< 0.0001
Biochemical Oxygen Demand	mg/L	< 2
Boron	mg/L	0.021
Bromodichloromethane	mg/L	< 0.0001
Bromoform	mg/L	< 0.0002
Bromomethane	mg/L	< 0.0005
Cadmium	mg/L	< 0.0001
Calcium	mg/L	< 0.2
Carbon Tetrachloride	mg/L	< 0.0001
Chemical Oxygen Demand	mg/L	11
Chloride	mg/L	< 1
Chlorobenzene	mg/L	< 0.0001
Chloroethane	mg/L	< 0.001
Chloroform	mg/L	< 0.0001
Chloromethane	mg/L	< 0.0005
Chromium	mg/L	< 0.005
Cis-1,2-Dichloroethylene	mg/L	< 0.0001
Cis-1,3-Dichloropropylene	mg/L	< 0.0002
Conductivity	µS/cm	9
Copper	mg/L	< 0.001

Detailed Results from Trip Blank Sample - Spring 2013 (continued)

Parameter	Units	2013-04-26 Trip Blank
Dibromochloromethane	mg/L	< 0.0002
Dichlorodifluoromethane	mg/L	< 0.0005
Dichloromethane	mg/L	< 0.0005
Dissolved Organic Carbon	mg/L	0.9
Ethylbenzene	mg/L	< 0.0001
Hardness	mg/L	< 1
Hexane	mg/L	< 0.0005
Iron	mg/L	< 0.1
Lead	mg/L	< 0.0005
m+p-Xylene	mg/L	< 0.0001
Magnesium	mg/L	< 0.05
Manganese	mg/L	< 0.002
Mercury	mg/L	< 0.0002
Methyl Ethyl Ketone	mg/L	< 0.005
Methyl Isobutyl Ketone	mg/L	< 0.005
Methyl Tert Butyl Ether	mg/L	< 0.0002
Naphthalene	mg/L	< 0.0005
Nitrate	mg/L	< 0.1
Nitrite	mg/L	< 0.01
Nitrite + Nitrate	mg/L	< 0.1
o-Xylene	mg/L	< 0.0001
pH (Lab)	unitless	6.36
Phenols	mg/L	< 0.001
Phosphorus (total)	mg/L	< 0.03
Potassium	mg/L	< 0.2
Sodium	mg/L	0.2
Styrene	mg/L	< 0.0002
Sulphate	mg/L	< 1
Tetrachloroethylene	mg/L	< 0.0001
Toluene	mg/L	< 0.0002
Total Dissolved Solids	mg/L	< 10
Total Kjeldahl Nitrogen	mg/L	< 0.7
Total Xylenes	mg/L	< 0.0001
Trans-1,2-dichloroethylene	mg/L	< 0.0001
Trans-1,3-dichloropropylene	mg/L	< 0.0002
Trichloroethylene	mg/L	< 0.0001
Trichlorofluoromethane	mg/L	< 0.0002
Vinyl Chloride	mg/L	< 0.0002
Zinc	mg/L	< 0.005

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