Environment

City of Guelph

# 2010 Annual Report
# Closed Eastview Road Landfill Site

**Prepared by:**

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**Project Number:**

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**Date:**

April, 2011

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April 26, 2011

Bill Bardswick, Director
West Central Region
Ministry of the Environment
119 King Street West, 12th Floor
Hamilton, ON L8P 4Y7

Dear Mr. Bardswick:

**RE: City of Guelph Eastview Landfill Site – 2010 – Annual Report**

Pursuant to Condition # 11 of the Ministry of the Environment's *Provisional Certificate of Approval for a Waste Disposal Site, No. A170101*, I am pleased to submit the 2010 Annual Report for the Eastview Road Landfill Site in the City of Guelph. The report includes:

1) Landfill Operations
2) Leachate Collection and Containment Performance Monitoring
3) Groundwater Monitoring
4) Surface and Stormwater Monitoring
5) Landfill Gas Monitoring

I trust that the enclosed report meets the needs of the Ministry, and fulfills the requirements of the Certificate of Approval. If further information is required, or should you have any questions, please do not hesitate to contact us.

Sincerely,

**Dean F. Wyman**
General Manager, Solid Waste Resources Division

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# Executive Summary

The following table presents a summary of the 2010 Annual Report for the Closed Eastview Road Landfill Site. The landfill is operated under two Certificates of Approval (C of A):

a) Amended Provisional Certificate of Approval for a Waste Disposal Site No. A170101 under the Environmental Protection Act for the general landfill construction and operation (most recently amended on June 13, 2005 for Post Closure).

b) Certificate of Approval (Sewage) No. 3-0048-90-006 under the Ontario Water Resources Act for the leachate collection system.

Each C of A specifies annual reporting requirements. These have been outlined in the left-hand columns below, while the right-hand columns provide a summary of the 2010 findings as well as a reference to the section of this report where the reader will find further details.

## A. Provisional C of A No. A170101 for the Waste Disposal Site

**Surface Water, Stormwater, Groundwater and Landfill Gas Monitoring**

| C of A Reporting Requirement | Report Reference and Summary |
|---|---|
| 11.1 The data collected from the previous year's monitoring programs for the Site. | • Surface and Stormwater - See Section 5.0, associated Tables and Figures, Appendix C<br>• Groundwater – See Section 4.0, associated Tables and Figures, Appendix A, C, and D<br>• Landfill Gas - See Sections 3.8 and 6.0, associated Tables, Appendix E. |
| 11.1.1 Analysis and interpretation of the results of the approved surface water, stormwater, groundwater and landfill gas monitoring programs. | • <u>Surface and Stormwater</u><br>➢ Surface water sampling continues to indicate no adverse affects on downstream quality. (Section 5.4).<br>• <u>Groundwater</u><br>➢ Groundwater flow is similar to previous years (Section 4.2). Downward flow through the till, beneath the landfill, is only a few centimetres per year. |
| | • Leachate quality in the waste and the outwash below the waste is similar to previous years (Section 4.3).<br>• Shallow groundwater quality remains similar to previous years. As the PLCCS continues to operate as designed preventing off-site leachate escape, no new exceedances of Reasonable Use are predicted in the shallow groundwater (Section 4.4). |
| | • Lower till groundwater quality is similar to previous years and shows no indication of leachate contamination. Section 4.5.2.2).<br>• Bedrock groundwater quality is similar to previous years and shows no indication of leachate impacts. Reasonable Use is not currently exceeded, nor is it predicted to be exceeded in the future. However, there is still an increase trend in chloride and sodium occurring location 37. This does not appear to be landfill related. Further investigation of this area based on data from the more recent monitoring location continues to indicate that the chloride most likely coming from an off-site source. (Section 4.5).<br>• <u>Landfill Gas</u><br>➢ There is no evidence of gas migration off-site. (Section. 3.8 and 6.1). |

### Surface Water, Stormwater, Groundwater and Landfill Gas Monitoring

| C of A Reporting Requirement | Report Reference and Summary |
|---|---|
| 11.1.2 Review of the adequacy of the monitoring programs and a recommendation for any changes that may be necessary. | • A proposed revision to the monitoring programs was recommended in the 2008 Annual Report. This revised program was agreed upon by the MOE in their technical review of the 2008 Annual Report. As this was the case, the City implement this program in 2010 as outline in a letter dated April 12, 2010 to the MOE. However, in discussions with MOE staff, the MOE Approvals branch was also to be notified as well. As this was the case, the current monitoring programs as outlined in the C of A were re-instated and a amendment request was forwarded to the MOE Approvals Branch. Groundwater (Section 4.9), Surface Water (Section 5.4).<br>• The present gas monitoring program is adequate, no changes are recommended (Section 6.6) |
| 11.1.3 Review of the monitoring results and a recommendation on the need for, and design of, and implementation of, contingency measures identified in the supporting documentation. | • There is no need to implement the contingency plans for groundwater – Section 4.8.<br>• There is no need to implement the contingency plans for surface water – Section 5.4.<br>• There is no need to implement the contingency plans for landfill gas migration off-site - Sections 6.5. |

### Site Operation and Development

| C of A Reporting Requirement | Report Reference and Summary |
|---|---|
| 11.2.1 An annual summary of the quantity, source and types of waste deposited at the site. | • No longer applicable, landfill is now closed. |
| 11.2.2 An updated Landfill Site Plan showing the areas of fill, buffer zones, present contours, monitoring locations and surface water control facilities. | • No longer applicable, landfill is now closed. |
| 11.2.3 An estimate of the remaining Site capacity and Site life. | • No longer applicable, landfill is now closed. |
| 11.2.4 The optimization of the remaining Site capacity with respect to refining the final contours, having regard to minimizing the potential for off-site impacts. | • No longer applicable, landfill is now closed. |
| 11.2.5 Approved changes to the operation, equipment or procedures at the site. | • *The City is undertaking post closure of the site.* |
| 11.2.6 Any operational problems encountered and the remedial measures taken including the control of litter, vectors and vermin, leachate seeps and complaints including a record of the City's responses to such complaints. | • The malfunctioning of the flow meter that began in 2009 continued into 2010. The flow meter incorrectly measured the volume of leachate discharged by the Main Pump Station. Although flow meter readings could not be used to measure actual leachate flows, the volume of leachate discharged was approximated using pump calibration test results and pump hour meter readings. On July 20, 2010 a new flow meter was installed (Section 2.6 and 2.7). |
| 11.2.7 Recommendation respecting any proposed changes in the operation of the Site. | • There are no proposed changes in the operation of the site. (Section 2.8). |
| 11.2.8 Pursuant to Condition 5, the status to identify site (s) for the establishment of the long term waste needs. A schedule is to be undertaken, if required, for the implementation of a contingency planning for the replacement capacity in the event the long term waste disposal site is not operational, when the site has reached the final contours as indicated in condition 3. | • The waste transfer station was completed in mid 2003 and commissioned in November 2003. The City now transports non-recyclable waste to the Green Lane Landfill in St. Thomas, Ontario. (Section 1.4) |
| 11.2.9 A summary of the occurrences or incidents where this Certificate was not complied with, the reason for non-compliance and the measures to be implemented to ensure that future non-compliance does not occur. | • There were no compliance issues reported to AECOM. The operation of the site is consistent with the C of A in 2010. |

### Leachate

| C of A Reporting Requirement | | Report Reference and Summary |
|---|---|---|
| *16.2* | All data, interpretations and recommendations regarding this leachate characterization program and the impact assessment on the Water Pollution Control Plant with respect to both quantity and quality of leachate shall be included in the annual monitoring report. | • See Section 3.1, 3.2, 3.3 and 3.4.1, associated Tables and Figures, Appendix B and C.<br>• Quantity of leachate collected and discharged to the sanitary sewer in 2010 was estimated at 119,692 $m^3$. This volume is significantly higher than expected based on the water budget calculated by the site. The cause of this discrepancy is most likely related to the continued malfunctioning flow meter (replaced in July 2010) and an over estimate of the flow rates of the pumps completed manually. Landfill staff have been notified and further calibrations of the new flow meter as well as manual flow rate checks of the pumps will be completed in the spring (high water level) and summer/early fall (low water level). (Section 3.4).<br>• The leachate quality from the Perimeter Leachate Collection System is similar to previous years.<br>• As leachate quality is similar to previous years, there is no significant impact on the Waste Water Treatment Plant. (Section 3.2.1). |

### Monitoring

| C of A Reporting Requirement | | Report Reference and Summary |
|---|---|---|
| 17.10 | The City in the annual monitoring report shall address the impact of water taking from the municipal water supply on the movement of landfill leachate into the bedrock aquifer. The City shall at all times ensure that the pumping rates from the municipal wells are maintained at a hydraulic steady state and pumping equilibrium so that the cone of influence of pumping from the wells does not expand and induce landfill leachate transport and flow downwards to the bedrock aquifer and towards the municipal water wells. | • Measured groundwater elevations beneath the landfill show no overall indication of any change in levels, excluding seasonal variation, when compared to historical data. (Sections 4.2 and 4.7).<br>• Municipal pumping records confirm that water taking is within historical ranges (Section 4.7).<br>• Review of groundwater quality in the bedrock beneath the landfill confirms that Reasonable Use is being met and, therefore, no unacceptable impact from the landfill on the City's municipal water supply wells is occurring (Sections 4.4, 4.5 and 4.7). |
| | | • Review of landfill monitoring results (leachate quality and measured leachate elevations) confirm that bedrock water quality at the site boundaries continue to meet Reasonable Use Guidelines. Presently, there is no unacceptable impact from the landfill on the City's municipal water supply wells (Sections 3.6, 4.5 and 4.7). |

### Household Hazardous Waste Transfer Station

- This reporting is no longer required since the Household Hazardous Waste Transfer Station was relocated from the Landfill Site to the Wet/Dry Processing Facility.

## B. Certificate of Approval No. 3-0048-90-006 for the Leachate Collection System

| C of A Reporting Requirement | | Report Reference and Summary |
|---|---|---|
| 6(a) | A monthly summary and interpretation of leachate flows at all pumping stations. | • The west system collected more leachate than the south system. Lower collection rates are experienced in the dry summer months (Sections 3.2 and 3.4.1, Tables and Charts in Appendix B). |
| 6(b) | A monthly summary and interpretation of leachate levels in all manholes. | • The PLCCS is operating as designed (Section 3.3 and 3.5 and associated Tables in Appendix B). |
| 6(c) | An estimate of the annual volume of leachate collected. | • The total quantity of leachate collected in 2010 was estimated at 119,692 $m^3$. This volume is significantly higher than expected based on the water budget calculated by the site. The cause of this discrepancy is most likely related to the continued malfunctioning flow meter (replaced in July 2010) and an over estimate of the flow rates of the pumps completed manually. Landfill staff have been notified and further calibrations of the new flow meter as well as manual flow rate checks of the pumps will be completed in the spring (high water level) and summer/early fall (low water level). (Section 3.4). |
| 6(d) | An assessment of the efficiency of the system with respect to the quantity of leachate collected, control of groundwater levels upgradient of the containment wall, and control of leachate migration downgradient of the site. | • The system has continued to function efficiently. The hydraulic gradients are consistently inward across the sheet pile wall thus preventing off-site movement of leachate into the shallow groundwater (Section 3.6). |
| 6(e) | An assessment of the need to implement the contingency plan based on Condition 6(d). | • There is no need to implement contingency measures (Section 3.6 and 3.7). |
| 6(f) | Any changes to the operation, procedures or equipment associated with the system. | • No changes in operation, procedure or equipment occurred in 2010 (Section 3.7). |
| 6(g) | Any operational problems encountered and remedial measures taken. | • Routine system maintenance was undertaken during 2010 (Section 3.8). |
| 6(h) | Recommendations respecting any proposed changes in the operation, procedures, equipment or monitoring of the system. | • As the landfill had been closed for five years, a proposed revision to the water level monitoring was recommended as per the closure/post closure report for the site in the 2008 Annual Report. This revised program was agreed upon in the MOE's technical review or the 2008 Annual Report. As this is the case, the City will implement this program in 2010 as outline in a letter dated April 12, 2010 to the MOE (Section 3.9). As informed by the MOE Guelph District Office in late 2010, the Approvals Branch was also to be notified as well before implementation. As this was the case, the original program was re-instated and an amendment was forwarded to the Approval Branch. |

# Table of Contents

**Statement of Qualifications and Limitations**
**Letter of Transmittal**
**Distribution List**
**Executive Summary**

page

**1. Introduction ..... 1**
1.1 Background ..... 1
1.2 Objectives ..... 1
1.3 Scope and Organization of this Report ..... 1
1.4 Status of the Search for Replacement Landfill Capacity ..... 2

**2. Landfill Development and Operation ..... 2**
2.1 Updated Site Plan ..... 2
2.2 Quantity, Sources and Types of Waste Deposited in 2010 ..... 2
2.3 Clean Fill Received in 2010 ..... 2
2.4 Remaining Site Capacity and Life ..... 2
2.5 Clean Fill Needs in 2011 ..... 2
2.6 Operational Problems and Remedial Measures ..... 2
2.7 Public Complaints and Responses ..... 3
2.8 Recommended/Approved Operational Changes ..... 3

**3. Leachate Management ..... 3**
3.1 Leachate Quality and Impact on the Waste Water Treatment Plant ..... 3
3.1.1 Leachate Quality ..... 3
3.2 Model Sewer Use By-Law Parameters ..... 3
3.2.1 Main Pumping Station ..... 3
3.2.2 Summary ..... 4
3.3 MISA Priority Pollutants ..... 4
3.4 Quantity of Leachate Collected ..... 6
3.4.1 Annual Quantities ..... 6
3.4.2 Monthly Leachate Flows in Pump Stations ..... 7
3.5 Monthly Leachate Levels in the Manholes ..... 7
3.6 Effectiveness of the Leachate Collection System ..... 8
3.6.1 Correlation of Predicted and Actual Leachate Quantities Collected ..... 8
3.6.2 Leachate Elevations Beneath the Landfill with Respect to Target Elevations ..... 9
3.6.3 Effectiveness of the Sheet Pile Wall in Preventing Off-Site Leachate Migration ..... 10
3.6.4 Summary ..... 10
3.7 Need to Implement Contingency Plans for Leachate Control ..... 11
3.8 Operational Problems and Remedial Actions ..... 11
3.8.1 General PLCCS Operation ..... 11
3.8.2 Methane in the Leachate Collection System ..... 11
3.9 Recommended/Approved Changes to the Leachate Control System ..... 12

**4. Groundwater Monitoring ..... 13**
4.1 The 2010 Groundwater Monitoring Program ..... 13
4.2 Groundwater Elevations and Flow Directions ..... 14
4.3 Leachate Quality ..... 17
4.4 Shallow Groundwater Quality ..... 19

4.4.1 Measured Exceedances of Reasonable Use ..... 19
4.4.2 Predicted Exceedances of Reasonable Use ..... 21
4.5 Bedrock Groundwater Quality ..... 22
4.5.1 Measured Exceedances of Reasonable Use ..... 22
4.5.2 Predicted Exceedances of Reasonable Use ..... 25
4.5.2.1 Target Elevations ..... 25
4.5.2.2 Lower Till Groundwater Quality ..... 28
4.6 Private Water Well Quality ..... 29
4.7 Effects of Municipal Water Supply Pumping ..... 30
4.8 Need to Implement Contingency Plans ..... 31
4.9 Adequacy of the Monitoring Program and Recommended Changes ..... 31

**5. Surface Water Monitoring ..... 31**

5.1 Objectives ..... 31
5.2 Sampling Methodology and Site Descriptions ..... 32
5.2.1 Background water Quality Stations ..... 32
5.2.2 On-Site Water Quality Stations ..... 32
5.2.3 Downstream Surface Water Stations ..... 33
5.3 2010 Sampling Program ..... 33
5.4 2010 Sampling Data ..... 33
5.4.1 Additional Parameters ..... 36
5.4.2 Suspended Sediments ..... 37
5.4.3 Summary ..... 37
5.5 Adequacy of the Monitoring Program and Recommended Changes ..... 37

**6. Landfill Gas Monitoring ..... 38**

6.1 Gas Control System ..... 38
6.2 Landfill Gas Monitoring ..... 38
6.2.1 On-Site Structure Monitoring ..... 38
6.3 Combustible Gas Monitoring Program ..... 38
6.3.1 Monitors Within the Landfill (“BH” series) ..... 38
6.3.2 Monitors Adjacent to the PLCCS (C and D Series Monitors) ..... 39
6.4 Measured or Predicted Off-Site Occurrences of Combustible Gas ..... 40
6.5 Need to Implement Contingency Plans ..... 40
6.6 Adequacy of the Monitoring Programs and Recommended Changes ..... 41
6.6.1 Monitors within the Waste ..... 41
6.6.2 Monitors Adjacent to the PLCCS (“C” and “D” Series Probes) ..... 41
6.6.3 Buffer Lands near the Property Boundary ..... 41
6.6.4 Southwest Corner of the Site ..... 41
6.6.5 PLCCS Gas Monitoring ..... 41

**7. Conclusions and Recommendations ..... 41**

7.1 Conclusions ..... 41
7.1.1 Operations ..... 41
7.1.2 Monitoring ..... 42
7.2 Response to the 2009 Recommendations ..... 43
7.2.1 Operations ..... 43
7.3 Recommendations for 2010 ..... 45
7.3.1 Operations ..... 45

**8. Bibliography ..... 46**

## List of Figures

Figure 1. Location Map
Figure 2. Leachate Collection System process Flow Diagram
Figure 3. Monitor Site Location Map *(map pocket)*
Figure 4. Leachate Levels within Collector System – South Collector
Figure 5. Leachate Levels within Collector System – West Collector
Figure 6. Leachate Elevation within Landfill – South Area
Figure 7. Leachate Elevation within Landfill – West Area
Figure 8. Leachate Elevation within Landfill – Interior Area
Figure 9. Water Elevations South Collection System and Downgradient
Figure 10. Elevation Difference Across Sheet Pile Wall – South Collector
Figure 11. Elevation Difference Across and Below the Sheet Pile Wall – West and South Collector
Figure 12. Water Table and Shallow Groundwater Flow – June 2010
Figure 13. Piezometric Head and Groundwater Flow in Shallow Bedrock – June 2010
Figure 14. Bedrock Groundwater Elevation Trends – Northeast Area of the Landfill Property
Figure 15. Routine Groundwater Monitors Sampled in Waste, Outwash and Till During 2010
Figure 16. Routine Groundwater Monitors Sampled in Bedrock in 2010
Figure 17. Groundwater Chemistry Trends – Bedrock Locations – Boron
Figure 18. Groundwater chemistry Trends – Bedrock Locations – Chloride
Figure 19. Surface Water Monitoring Locations
Figure 20. Surface Water chemistry Trends – Comparison of Zinc at Locations SW1 and SW16

## List of Tables

Table 1. Average Leachate Flows in 2010 ..... 4
Table 2. Leachate Analytical Data from Main Pumping Station ..... 5
Table 3. Quantity of Leachate Collected Annually ..... 6
Table 4. Water Balance Calculation for the Closed Eastview Road Landfill – 2010 ..... 8
Table 5. Summary of 2010 Routine Groundwater Sampling ..... 13
Table 6. Summary of Leachate Quality from the Waste and Outwash Beneath the Waste in 2010 ..... 17
Table 7. Summary of Bedrock Groundwater Quality During 2010 ..... 22
Table 8. Summary of Lower Till Groundwater Quality During 2010 ..... 28
Table 9. 2010 Surface Water Sampling Events ..... 33
Table 10. Summary of Surface Water Quality in 2010 ..... 34
Table 11. Initial Action Levels for Leachate Indicator Parameters ..... 35
Table 12. Statistical Summary of Chloride Concentrations in Surface Waters Since 1993 ..... 35

# Appendices

**Appendix A. Groundwater Monitoring Data and Elevation Trends**

A1. Monitor Construction Details
A2. Routine Groundwater Elevations
A3. Collection System Elevations (C and D Series Monitors)
A4. Detailed Bedrock and Lower Till Elevations
A5. Detailed Leachate Elevations – Groundwater Elevation Trends (Figures A1 – A6)

**Appendix B. Leachate Collection and Containment System Operating Results**

B1. Flow Meter Readings and Summary of Leachate Discharge from the Main Pump Station During 2010
B2. South and West Pump Stations, Hour Meter Readings and Monthly Leachate Flows During 2010
B3. Monthly Leachate Quantities and Average Daily Flow Rates for All Pump Stations During 2010
B4. Manhole Leachate Elevations, South Collection System – 2010
B5. Manhole Leachate Elevations, West Collection System – 2010

**Appendix C. Groundwater, Surface Water and Leachate Quality and Chemistry Trends**

C1. Groundwater Routine Landfill Leachate Analysis
C2. Groundwater Routine Monitoring Analyses
C3. Surface Water Routine Monitoring Analyses
C4. Surface Water Field Observations
C5. Leachate MISA Monitoring Analyses
C6. Organics Analysis – Landfill Leachate
C7. Comparison of Downgradient Monitors in Buffer Land Boundary to Guideline B7 Criteria for 2010
C8. Comparison of Downgradient Bedrock Boundary Monitors in Buffer Land to Guideline B7 Criteria for 2010 – Groundwater Chemistry Trends (Figures C1 – C18)

**Appendix D. Groundwater Quality – Private Water Well Analyses**

**Appendix E. Combustible Gas Monitoring Results**

**Appendix F. Detailed Water Budget – 2010**

**Appendix G. City of Guelph Letter**

# 1. Introduction

## 1.1 Background

The City of Guelph currently owns the Eastview Road Landfill Site located in the northeast corner of the city. The landfill was in operation until October 2003 and is now closed. The landfill property is about 81 ha of which about 45 ha had been landfilled. The closed landfill is bound by Eastview Road to the south, Speedvale Avenue to the north and Watson Road to the east (Figure 1).

In 2003, the City submitted the closure plan for the landfill site to the MOE. In 2005, the MOE issued an amendment to the Provisional Certificate of Approval # A 170101 (C of A) for post closure of the Closed Eastview Road Landfill Site.

Based on recommendations in response to MOE review comments on the 2007 and 2008 annual reports, the laboratory chemistry results are provided in CD format attached. Also provided on this CD is an electronic copy of the Annual Report. As well, the northeast quadrant pumping volumes were added to the groundwater elevation trends for the deep bedrock monitors (16-VIII and 90-I) for comparison purposes. Further, the measured water temperatures taken during groundwater sampling are now provided in Appendix A as requested in the 2008 comments. Table A1, monitor details, has also been updated to include the replacement locations and new locations as well as the current top of pipe elevations for monitoring wells 37-I and 37-II.

## 1.2 Objectives

As part of the requirements under Condition 45 of the post closure C of A, an Annual Report on the monitoring undertaken at the landfill must be submitted to the MOE no later than April 30 of the following year.

The objective of this Annual Report is to satisfy all the requirements set forth in Condition 11.0, 14.0 and 16.0 in the C of A as well as Section 6 of the Perimeter Leachate Collection and Containment System (PLCCS) C of A, specifically on all aspects of operations and environmental monitoring at the landfill.

## 1.3 Scope and Organization of this Report

The Annual Report is organized to be comparable with the actual requirements set forth in the C of A. This has provided a more concise and user friendly reporting style which received a positive response from the MOE during their review of the 1996 Annual Report, the first report in which the concept was initiated. The Executive Summary, at the beginning of this report, is also structured so that each of the reporting requirements of the C of A. are quoted, cross-referenced to the report and addressed in a summary statement.

Following this introductory section, the balance of the report is structured as follows:

**Section 2**..... Landfill Development and Operation
**Section 3**..... Leachate Management
**Section 4**..... Groundwater Monitoring
**Section 5**..... Surface Water Monitoring
**Section 6**..... Landfill Gas Monitoring
**Section 7**..... Overall Compliance with the Conditions of the Certificate of Approvals
**Section 8**..... Conclusions and Recommendations

The Appendices at the back of the report provide much of the associated technical information.

The report preparation has been co-ordinated by AECOM. Evaluation and interpretation of the data has been provided by AECOM and Urban & Environmental Management Inc. (UEM).

AECOM also conducted and reported on the interpretation and analysis for the leachate collection and control systems, groundwater, surface water and stormwater monitoring results. UEM reported on all aspects of landfill activities during 2010 and the landfill gas monitoring results. Both consultants contributed to the conclusions and recommendations.

### 1.4 Status of the Search for Replacement Landfill Capacity

The landfill closed October 10, 2003. The waste transfer station was completed in mid 2003 and commissioned in November 2003. Presently, the City transports non-recyclable waste, received at the transfer station, to the Green Lane Landfill in St. Thomas, Ontario.

# 2. Landfill Development and Operation

### 2.1 Updated Site Plan

The Eastview Landfill closed on October 10, 2003.

### 2.2 Quantity, Sources and Types of Waste Deposited in 2010

There was no waste disposed at the Eastview Landfill Site in 2010.

### 2.3 Clean Fill Received in 2010

Clean fill was received in 2010 and stored on-site to be ultimately used during the construction of the park, which is anticipated to commence in 2011.

### 2.4 Remaining Site Capacity and Life

There is no approved capacity remaining.

### 2.5 Clean Fill Needs in 2011

No filling or grading is anticipated in 2011 on at the closed landfill. However, if fill is required to repair eroded areas or for site grading, it will be obtained from on-site sources wherever possible.

### 2.6 Operational Problems and Remedial Measures

In 2009 during an inspection of the main pumping station it was discovered that the flow meter was not functioning properly. This issue continued into 2010. A new flow meter was installed on July 20, 2010. During the replacement of the old flow meter, a ring of solids was observed around the existing force main pipe. The force main pipe was replaced and the system was cleaned and flushed.

In 2010, the gate vales and check valves within the main pumping station were replaced. Valves within the south and west pump station were inspected and found to be operating correctly.

### 2.7 Public Complaints and Responses

Public complaints are reported to landfill staff for investigation. Copies of complaint records are provided to complainants, if desired, and kept on file at the landfill office. There were no recorded complaints in 2010.

### 2.8 Recommended/Approved Operational Changes

There are no operational changes recommended for 2011.

# 3. Leachate Management

### 3.1 Leachate Quality and Impact on the Waste Water Treatment Plant

#### 3.1.1 Leachate Quality

Based on the amended Certificate of Approval # 3-0048-90-006 (C of A) dated February 15, 1996, sample collection of leachate at the Eastview Road Landfill is required from the main pumping station only. Leachate samples were collected from the main pumping station throughout 2010. Leachate from the south and west pumping stations is pumped to the main station and then pumped to the municipal sewer for treatment at the Guelph Wastewater Treatment Plant (WWTP). The relative locations of the three-leachate pumping stations at the landfill are shown schematically in Figure 2.

In 2010, the C of A monthly/quarterly sampling requirements for the main pumping station were:

a) pH;
b) five-day carbonaceous biochemical oxygen demand (CBOD5);
c) chemical oxygen demand (COD);
d) total kjeldahl nitrogen (TKN);
e) phenols; and
f) iron.

Semi-annual samples were collected for the remaining Model Sewer Use by-law parameters listed in Table 1 of the C of A, and for Municipal/Industrial Strategy for Abatement (MISA) parameters listed in Table 2 of the C of A.

### 3.2 Model Sewer Use By-Law Parameters

#### 3.2.1 Main Pumping Station

The main pumping station results are discussed below. Table 1 provides the average leachate flow from the system in 2010. As shown, the average monthly leachate flow from the main pumping station was 327 $m^3$/d, with the maximum and minimum flows being 498 $m^3$/d and 205 $m^3$/d, respectively.

The sampling results for the Model Sewer Use by-law parameters are presented in Table 2, Leachate Analytical Data from the Main Pumping Station. The results show that all parameters were within the Model Sewer Use by-law limits for every parameter on every sampling occasion. As well, the water quality results are similar to those observed historically.

**Table 1. Average Leachate Flows in 2010**

| Date | Main Pumping Station ($m^3$/day) | West Pumping Station ($m^3$/day) | South Pumping Station ($m^3$/day) |
|---|---|---|---|
| **January** | 321 | 185 | 137 |
| **February** | 264 | 143 | 121 |
| **March** | 498 | 259 | 240 |
| **April** | 333 | 213 | 120 |
| **May** | 386 | 185 | 201 |
| **June** | 412 | 230 | 182 |
| **July** | 333 | 195 | 138 |
| **August** | 244 | 137 | 107 |
| **September** | 205 | 116 | 89 |
| **October** | 304 | 171 | 133 |
| **November** | 330 | 179 | 146 |
| **December** | 297 | 158 | 138 |
| **Maximum** | 498 | 259 | 240 |
| **Minimum** | 205 | 116 | 89 |
| **Average** | 327 | 181 | 146 |

In past reports, the loading on the WWTP was completed. These loadings, specifically for leachate $CBOD_5$ and TKN, have consistently been within 1% of the corresponding WWTP influent loads, and are thus considered insignificant. The Manager of the City of Guelph WWTP has continually confirmed these loadings were not significant. Since the water quality collected from the Main Pumping Station continues to be similar to that observed in the past, it is expected that the loadings on the WWTP will continue to be insignificant. In the future, if there is any significant change in the water quality collected (i.e., significant increases in concentrations observed), the loading calculation will be completed to assess the potential impacts.

### 3.2.2 Summary

A review of the analytical results of samples collected from the main pumping station for each event in 2010 shows that all parameters were within the Model Sewer Use by-law limits. The leachate would not contribute a significant $CBOD_5$, TKN or hydraulic load to the WWTP.

## 3.3 MISA Priority Pollutants

Leachate samples were collected from the main pumping station for analysis of the MISA parameters listed in Table 2 of the C of A. Samples were collected on August 19, 2010 and November 29, 2010. The analytical results are provided in Table C5 in Appendix C.

The MISA parameters can be divided into two categories, the first being conventional and metals, and the second being non-conventional organics. All of the parameters in the first category were below Model Sewer Use by-law limits (where applicable), and were detected at relatively low concentrations.

The results of the MISA analysis, category two, are presented in Table C5: C of A MISA Priority Pollutants in Eastview Landfill Leachate in 2010 along with the corresponding method detection limits (MDL). Parameters in the second category, the non-conventional organics, were generally below the laboratory detection limits, except for the highlighted parameters found in Table C5. As observed in the past, trace levels of the halogenated volatile organics (ATG 16) Cis-1,2 dichlorothylene, and chlorobenzene and non-halogenated volatile organics (ATG 17) – BTEX and Base Neutral Extractables (ATG 19) - bis(2-ethylhexyl)Phthalate, were detected. Also, as observed on occasion in the past, trace levels of MCPP, Palmitic acid and Palmitoleic acid were detected at or just above detection limits.

# Table 2. Leachate Analytical Data from Main Pumping Station

AECOM

| Parameter | Sampling Dates 2010 | | | | | | Model Sewer Use By-Law Limits | 2010 Avg. Conc. (mg/L) |
|---|---|---|---|---|---|---|---|---|
| | Jan | Feb | Mar | Aug | Sept | Nov | | |
| pH | 7.4 | 7.4 | 7 | 7.4 | 7.3 | 7.86 | 5.5-9.5 | 7.39 |
| CBOD5 | 4 | 9 | 5 | 5 | 5 | 3 | 300 | 5.2 |
| COD | 88 | 120 | 120 | 95 | 130 | 67 | | 103 |
| Oil & Grease (animal) | | | | <0.5 | | <0.5 | 150 | <0.5 |
| Oil &Grease (mineral) | | | | <0.5 | | <0.5 | 15 | <0.5 |
| Suspended Solids | | | | 18 | | 9 | 350 | 13.5 |
| Total Phosphorus | | | | 0.16 | | 0.08 | 10 | 0.12 |
| TKN | 36 | 49 | 57 | | 57 | | 100 | 49.8 |
| Phenols | 0.002 | 0.003 | 0.002 | <0.001 | 0.002 | 0.003 | 1 | <0.002 |
| Chlorides | | | | 360 | | 250 | 1500 | 305 |
| Sulphate | | | | 39 | | 40 | 1500 | 39.5 |
| Aluminum | | | | 0.039 | | 0.028 | 50 | 0.034 |
| Iron | 6.01 | 0.04 | 8.53 | 5.6 | 0.13 | 2.9 | 50 | 3.87 |
| Fluoride | | | | 0.2 | | 0.1 | 10 | 0.15 |
| Antimony | | | | <0.0005 | | <0.0005 | 5 | <0.0005 |
| Bismuth | | | | <0.001 | | <0.001 | 5 | <0.001 |
| Boron | | | | 2.5 | | 1.3 | | 1.9 |
| Chromium | | | | <0.005 | | <0.005 | 5 | <0.005 |
| Cobalt | | | | 0.0024 | | 0.0012 | 5 | 0.0018 |
| Lead | | | | 0.0018 | | 0.0008 | 5 | 0.0013 |
| Manganese | | | | 0.26 | | 0.18 | 5 | 0.22 |
| Molybdenum | | | | <0.001 | | <0.001 | 5 | <0.001 |
| Selenium | | | | <0.002 | | <0.002 | 5 | <0.002 |
| Silver | | | | <0.0001 | | <0.0001 | 5 | <0.0001 |
| Tin | | | | <0.001 | | <0.001 | 5 | <0.001 |
| Titanium | | | | <0.05 | | <0.05 | 5 | <0.05 |
| Vanadium | | | | 0.003 | | 0.002 | 5 | 0.003 |
| Copper | | | | 0.002 | | 0.002 | 3 | 0.002 |
| Nickel | | | | 0.016 | | 0.008 | 3 | 0.012 |
| Zinc | | | | 1.3 | | 0.056 | 3 | 0.678 |
| Cyanide | | | | <0.005 | | <0.005 | 2 | <0.005 |
| Arsenic | | | | 0.001 | | <0.001 | 1 | <0.001 |
| Cadmium | | | | <0.0001 | | <0.0001 | 1 | <0.0001 |
| Mercury | | | | <0.0001 | | <0.0001 | 0.1 | <0.0001 |

As previously observed, low levels of Chlorinated Dibenzo-p-dioxins and Dibenzofurans (ATG 24) continue to be detected in the both August and November MISA sampling results. These compounds would not be unexpected as they are found in municipal leachate at very low concentrations. However, to put these detections into perspective, the calculated toxicity equivalent based on the concentrations detected, is around 2 pg/L, whereas the Ontario Drinking Water Standard is 15 pg/L.

## 3.4 Quantity of Leachate Collected

### 3.4.1 Annual Quantities

The volume of leachate collected is typically measured by a flow meter located in a chamber adjacent to the main pump station. The ASI Group investigation undertaken in 2009 confirmed that the flow meter in the main pumping station was not functioning correctly. The flow meter was replaced on July 20, 2010. Table B1 in Appendix B summarizes flow meter readings and flow rates in the Main Pump Station. The flow meter readings were not used in estimating leachate flows discharged from the Main Pumping Station up until July 20, 2010. Instead, the flow rates from the two main station pumps, P1 and P2, were estimated based on pump tests that were conducted in 2010. The pump test results are shown in the remarks column of Table B.1.

To estimate the volume of leachate pumped out of the Main Pumping Station each month, the pump rate for each pump (shown in Table B.1 in the column entitled "Main Pumps Average Pump Rate ($m^3$/hr)) was multiplied by the number of hours each pump operated that month. For example, in January 2010, P1 operated for 126.6 hours at a flow rate of 46.2 $m^3$/hr and P2 operated for 88.5 hours at a flow rate of 46.4 $m^3$/hr. The total estimated leachate pumped off-site was estimated to be 9,958 $m^3$ in January, 2010.

As shown in Table B.1, there was one pump test performed for both P1 and P2. The monthly pump rate for each pump was assumed to be uniform for the entire year up until July 20, 2010.

As shown in Table B.1, in 2010 a total of 119,692 $m^3$ of leachate was collected and discharged to the sanitary sewer. Table B.2 shows that of that total, about 53,398.7 $m^3$ was collected by the south station and 66,293.6 $m^3$ was collected by the west station. The total volume of leachate collected since 1991 is summarized in Table 1. The volume of leachate collected in 2010 appears to be significantly higher than in recent years. As discussed further in Section 3.6, the water budget for the site does indicate that this estimated volume is significantly higher than would have been expected as the annual surplus in 2010 (Very dry year) was less than half that noted in 2007 (dry year). The cause of this discrepancy is most likely related to the continued malfunctioning flow meter (replaced in July 2010) and an over estimate of the flow rates of the pumps completed manually in January. Landfill staff have been notified and further calibrations of the new flow meter as well as manual flow rate checks of the pumps will be completed in the spring (high water level) and summer/early fall (low water level).

**Table 3. Quantity of Leachate Collected Annually**

| Year | Quantity ($m^3$) | Year | Quantity ($m^3$) |
|---|---|---|---|
| **1991** | 94,199 | **2001** | 119,813 |
| **1992** | 143,095 | **2002** | 99,899 |
| **1993** | 126,667 | **2003** | 94,989 |
| **1994** | 162,604 | **2004** | 91,426 |
| **1995** | 185,761 | **2005** | 64,525 |
| **1996** | 156,010 | **2006** | 83,556 |
| **1997** | 126,192 | **2007** | 60,724 |
| **1998** | 105,575 | **2008** | 89,750 |
| **1999** | 94,863 | **2009** | 83,644 |
| **2000** | 109,913 | **2010** | 119,692 |

Section 3.6.1 compares leachate volumes collected in 2010 to leachate production rates calculated via the water budget, to show that the PLCCS is effectively collecting leachate.

### 3.4.2 Monthly Leachate Flows in Pump Stations

A monthly summary of estimated leachate flows from the South and West pump stations is shown in Table B2 of Appendix B. Table B2 shows the following:

a) monthly pumping hours for each pump;
b) monthly volume of leachate pumped from each pump station; and
c) the average pumping rate each month, measured in $m^3$/hour of pump operation, for all pumps combined.

Table B3 in Appendix B shows the average daily flow rate, on a monthly basis, from each of the three Pump Stations. The average daily flow rate at the Main Pump Station was highest in March, at 498 $m^3$/day and lowest in September, at 205 $m^3$/day. At the South Pump Station the average daily flow rate was highest in March and lowest in September, with recorded rates of 240 $m^3$/day and 89 $m^3$/day respectively. At the West Pump Station the average daily flow rate ranged from 259 $m^3$/day in March to 116 $m^3$/day in September 2010.

## 3.5 Monthly Leachate Levels in the Manholes

Leachate levels in the manholes are measured twice per month to assess the performance of the PLCCS in maintaining unimpeded flow towards the pump stations. Figure 3 is the leachate and groundwater monitoring site location map, which shows the locations of the manholes, and pumping stations.

The leachate levels measured in the collection system during 2010 are summarized in Tables B4 and B5 (Appendix B). These tables also include the collection pipe invert elevations and the top of sheet pile wall elevations adjacent to each manhole. Hydrographs of leachate elevations from selected manholes in both the south and west collection systems are illustrated in Figures 4 and 5.

Under normal operating conditions, the leachate levels measured in the collection system should be lowest at the pump station. This is based on the design of the system, which has increasing invert elevations away from the pump stations. Therefore, higher elevations are expected with increasing distances away from the pump stations as flow is induced through pumping. Below is a brief discussion on the measured leachate elevations in both the south and west collection systems.

*South Collection System*

Leachate elevations along the southeast section of the south collection system during 2010 show an apparent strong decrease from MH 1S towards the pump station (Figure 4a). This is based on the actual leachate elevations in the manholes.

In the southwest section of the south collection system, leachate elevations were similar to the pump station elevations (Figure 4b). As discussed in the past, only direct pumping of the PLCCS controls this section of the collection system. The pipe inverts along this section are flat at an elevation of 339.5 mASL, which also corresponds to the pump station invert. Therefore, it is expected that the leachate levels measured in this section would be similar to the pump station levels.

The overall patterns of the leachate levels continue to indicate that the south collection system is working as designed to collect and control leachate from beneath the landfill.

*West Collection System*

Leachate elevations in the west collection system exhibited a general decreasing trend from MH 2W to the pump station and from MH 8W towards the pump station (Figure 5).

The overall patterns of the leachate levels continue to indicate that the west collection system is working as designed to collect and control leachate from beneath the landfill.

## 3.6 Effectiveness of the Leachate Collection System

In the following discussion, the overall effectiveness of the leachate collection and containment system will be evaluated based on:

a) assessing the overall leachate quantity collected through the use of the detailed water budget for 2010;
b) confirming that leachate flows freely towards the collection system through the outwash below the waste; and
c) confirming that the sheet pile wall is still effectively preventing off-site leachate migration as indicated by water level differences.

### 3.6.1 Correlation of Predicted and Actual Leachate Quantities Collected

To provide a benchmark to assess the effectiveness of the PLCCS in the collection of leachate during 2010, a detailed water budget was calculated (Table 4). This water budget is used to predict the approximate amount of available surplus precipitation that could ultimately infiltrate through the landfill cover and waste and then be collected by the PLCCS. It should be noted that the calculations are for infiltration only and do not take into consideration surface water runoff from the landfill, a portion of which could also be collected by the PLCCS.

**Table 4. Water Balance Calculation for the Closed Eastview Road Landfill – 2010**

| Month | Mean Temperature (°C) | Total Precipitation (mm) | Evapotranspiration (mm) | Surplus Water (mm) |
|---|---|---|---|---|
| **January** | -6.24 | 20.5 | 0 | 20.5 |
| **February** | -5.03 | 14.5 | 0 | 14.5 |
| **March** | 2.81 | 47 | 11.4 | 35.6 |
| **April** | 9.18 | 57.7 | 46.9 | 10.8 |
| **May** | 14.01 | 67.1 | 71.1 | -4 |
| **June** | 17.61 | 130.7 | 110.6 | 20.1 |
| **July** | 21.24 | 129.3 | 158.3 | -29 |
| **August** | 20.4 | 27.7 | 37.7 | -10 |
| **September** | 14.34 | 112.6 | 71.5 | 41.1 |
| **October** | 8.68 | 76.2 | 37.1 | 39.1 |
| **November** | 2.64 | 33.2 | 8.3 | 24.9 |
| **December** | -5.21 | 14.2 | 0 | 14.2 |
| **Total Year** | | **731** | **553** | **178** |
| **Average Year*** | | 881 | 566 | 316 |

*Notes: Soil Moisture Storage Based on 100 mm. / Under Average Conditions for 2010.*
** 20 year average (1984-2003) for Guelph Dam*

The detailed water budget determined that overall, 2010 was much drier than an average year (Appendix F). The calculated total yearly surplus precipitation was only 178 mm (Table 4), which is just above half of the normal and

lower than the 2007 surplus of 275 mm, when a similar total precipitation total was recorded. During an average year, surplus water is available to infiltrate during the winter, spring and fall and there is a deficit of surplus due to high evapotranspiration at ground surface (average surplus) during the summer. In 2010 this was generally the case, although, there was very low total precipitation, well below the norm, during the periods of low evapotranspiration. Further, even though there was higher than normal precipitation in the summer, there was still a slight deficit of surplus in May, July and August. Therefore, in 2010 the total surplus of water potentially available to infiltrate was calculated at about 221 mm (sum of the months with positive surplus). This estimated 221 mm of surplus would be more indicative of the total surplus that could be available for infiltration and ultimately collected by the PLCCS, as there is not likely a significant actual loss of stored moisture from the landfill during deficit periods. Using this 220 mm, the estimated surplus that could be available to infiltrate into the landfill was only about 33,879 $m^3$. The total quantity of leachate collected during 2010 was estimated at 119,692 $m^3$. Therefore, using the very conservative surplus, it appears that the PLCCS collected about 350% of the estimated volume that could have infiltrated into the landfill (in 2007, which was also dry, collected only ~60,000 $m^3$). This estimated volume is significantly higher than would be expected under these drier conditions. As discussed in Section 3.4.1, the volume collected up to July was based on manually calculated flow rates completed in January 2010. It is most likely that these flow rates appear to be calculated on the high side as flows rates calculated in 2009 were much lower. Landfill staff have been notified and further calibrations of the new flow meter as well as manual flow rate checks of the pumps will be completed in the spring (high water level) and summer/early fall (low water level). Although, there has been a discrepancy in the volumes collected from the PLCCS, it is still considered to be operating effectively based on water quality and water level results.

This, once again, demonstrates that the PLCCS continues to be effective in collecting leachate from beneath the landfill.

### 3.6.2 Leachate Elevations Beneath the Landfill with Respect to Target Elevations

Leachate flow beneath the landfill is strongly influenced by the PLCCS. This has been demonstrated by leachate elevations measured at locations 51-II, 52-I, 55-I 56-I, 57-I, 58-I and 61-I as well as, to a lesser extent, at locations 63-I, 66-I and 67-I over the years (current levels shown on Figures 6 to 8). This was best demonstrated in the past after the PLCCS was optimized (southeast leg of south collector was lowered), when all leachate levels began to drop. This decrease continued into the late 1990s and then stabilized. Prior to the optimization, it was observed that, corresponding high and low elevations measured in the PLCCS were generally reflected in leachate elevations. Normally, seasonal increases in leachate elevations beneath the landfill in the early spring would also be observed in the collection system. These elevations would then begin to decrease throughout the late spring and into the summer until they stabilized in the collection system. This also showed the influence of the collection system on the leachate levels beneath the site. Since the late 1990s, there has been and continues to be very little seasonal correlation between the leachate levels and the PLCCS. This would be expected as the PLCCS has decreased the leachate levels to their lowest levels based on the design. Generally, it has been observed that during higher precipitation periods, the PLCCS pumping volumes increase.

The effect of the PLCCS on leachate flow beneath the landfill is important. “Target elevations” have been set for leachate levels below the landfill that will minimize groundwater impacts on the bedrock aquifer. To maintain these leachate target elevations, the PLCCS must be effective in controlling and lowering leachate elevations in the outwash beneath the waste. This has been demonstrated, as it is observed that the PLCCS strongly affects leachate elevations in the outwash beneath the waste.

During 2010, leachate elevations were measured below their target elevations throughout the year. Leachate elevations at locations 1-IR, 52-I, 56-IR, 57-I and 58-I, as well as 55-IR and 61-IR (as observed historically before the monitors became damaged or broken) were at or slightly below their target elevations throughout the year.

As expected[1], locations 51-II, 63-I, 65-I and 67-I, as well as the replaced location 66-IR, were still above their target elevations. It should be noted that from 1998 until 2003, location 51-II was occasionally below its target elevation. Therefore, the overall lower elevations exhibited at this location has demonstrated that the PLCCS can lower the leachate elevations in the landfill more than the modelling had predicted during drier periods.

In conclusion, the PLCCS has once again been demonstrated to be very effective in controlling and collecting leachate from the outwash beneath the landfill.

### 3.6.3 Effectiveness of the Sheet Pile Wall in Preventing Off-Site Leachate Migration

The sheet pile wall will prevent off-site leachate migration if an inward hydraulic gradient is maintained across it towards the landfill (i.e., groundwater elevations are higher outside the sheet pile wall than leachate elevations inside). To determine the effectiveness of the sheet pile wall, groundwater elevations from the C- Series monitors just outside of the wall (Appendix A) and leachate elevations in the manholes inside the wall (Appendix B) are compared.

Figure 9 illustrates the relationship of the leachate elevations in the south collection system, the landfill just inside the collection system and groundwater elevations in selected monitors outside of the sheet pile wall. Under normal operating conditions, the leachate elevations are always lower than the groundwater elevations measured outside of the sheet pile wall.

Figures 10 and 11 illustrate the difference between the groundwater elevations in the C-Series monitors (outside of the wall) and leachate elevations in the adjacent manholes (inside of the wall). Positive differences denote inward hydraulic gradients. These figures show that inward hydraulic gradients were maintained across the sheet pile wall.

Along the west collection system where the sheet pile does not exist, an inward gradient towards the collector pipe is still generally maintained as shown on Figure 11. Although the sheet pile wall does not exist here, this inward gradient prevents off-site leachate migration.

To determine if any off-site flow may be occurring beneath the sheet pile wall in the localized areas where it could not be advanced into the till, the piezometric elevations in C6-I, C9-I, C10-I and C11-I were compared to leachate elevations in the adjacent manholes. In all cases, a positive difference was maintained ensuring that no outward flow was occurring as shown on Figure 11.

### 3.6.4 Summary

The PLCCS continues to operate in a very effective manner.

Shallow groundwater is protected by the PLCCS. The leachate levels below the landfill remained consistently below the top of the sheet pile wall that surrounds much of the site. Furthermore, by pumping leachate out of the landfill, an inward gradient is maintained at the perimeter of the landfill (i.e., shallow groundwater flow is inward to the landfill, rather than outward).

In most cases, leachate elevations beneath the landfill were measured well below the target elevations that were originally set for protection of the bedrock aquifer. However, the areas where the modelling predicted that the leachate elevations would be above their target elevations once again showed elevated leachate above their target levels in 2010. The potential impacts of these levels above targets are dealt with separately in Section 4.5.2.1.

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*1. Modelling had suggested that these areas would never have leachate elevations that would be below the target elevations. Section 4.5.2.1 later in the report discusses the implications on groundwater quality.*

## 3.7 Need to Implement Contingency Plans for Leachate Control

The PLCCS is operating as designed and collects leachate effectively. The system creates an inward hydraulic gradient preventing off-site leachate migration. There is no need to implement any additional leachate control measures at this time.

## 3.8 Operational Problems and Remedial Actions

### 3.8.1 General PLCCS Operation

In August 2009, it was observed that the flow meter appeared to be reading incorrectly and was monitored further. The flow meter and the nearby forcemain pipes were replaced on July 20, 2010. The force main was then cleaned and flushed.

### 3.8.2 Methane in the Leachate Collection System

Methane may be found in perimeter leachate collection and containment system (PLCCS) manholes due to their proximity to the waste. Consequently all manholes and Pump Stations have signs warning of the possible presence of landfill gases. Confined space entry procedures are followed if it is necessary to enter any manhole or confined space.

The PLCCS manholes and Pump Stations were monitored during 2010 for methane. Monitoring results are shown in Appendix E in Tables E6 and E7. The table shows two monitoring events for 2010.

*South Side Collection System*

Table E6 documents methane concentrations in the south PLCCS. Manholes MH 4S, MH 5S, MH 5SA and MH 7S had methane concentrations above LEL[2] for both events. All other manholes were below LEL for both events. The two monitoring events showed no methane in the South Pump Station. Therefore, no remedial action is required.

*West Side PLCCS*

Table E7 documents methane concentrations in the west side PLCCS. In 2010, the only manholes that had measured gas concentrations were MH 7W, MH 8W, MH 9W and the West Pump Station. Manholes MH 8W and MH 9W measured methane during the two monitoring events, both of which were below LEL. The West Pumping Station (WPS) and MH 7W both recorded methane below the LEL for one event during 2010. Therefore, no remedial action is required.

*Main Pump Station*

There was no methane measured in the Main Pump Station (MPS) or the Old Main Pump Station (OMPS) during the two monitoring events in 2010 as shown in Table E7. Therefore, no remedial action is required at this time.

2. *LEL – Lower Explosive Limit. The LEL for methane gas is 5% by volume in air. Note that methane is only combustible in concentrations between 5% and 15% by volume in air.*

## 3.9 Recommended/Approved Changes to the Leachate Control System

There were no changes to the operation of the leachate control system in 2010, In 2011 the City should:

a) undertake annual alarm simulations to confirm alarm operation;
b) pressure flush pipe and mechanical components of the PLCCS as needed;
c) maintain pumps, valves, fittings, forcemains and other system components;
d) continue to monitor methane levels in all active pump stations and undertake remedial measures if concentrations above the LEL are measured and confirmed;
e) check the air release chamber annually for leaks and clean and inspect the interior of the chamber. A rain stopper barrier should be installed under the manhole lid to reduce surface runoff infiltration;
f) check all valves in the pumping stations annually;
g) calibrate the main pump station pumps quarterly by conducting pump tests and the data used as a back up in the event the flow meter malfunctions;
h) check hour meters in all pump stations to confirm they are operating properly; and
i) check flow meter and manual calculated estimates of pumping rates.

In the 2008 annual report, a discussion to reduce the water level monitoring program was outlined based on the fact that the landfill has been closed since 2003. This reduction was originally recommended in the report entitled "Eastview Road Sanitary Landfill Report Closure Plan", GLL 21-433, dated June 2003, prepared for The Corporation of the City of Guelph that was approved by the Ministry of the Environment (MOE). This revised monitoring program was agreed upon by the MOE in their technical review of the 2008 Annual Report (Letter dated September 21, 2009 Re: 2008 Closed Eastview Road Landfill Annual Report – Ref. #8405-7TXP2M). A letter dated April 12, 2010, was sent to the MOE informing them that the City will now be implementing this revised monitoring program as follows:

**Revised PLCCS Performance Monitoring**

| Monitoring | Frequency |
|---|---|
| Water Level measurements of leachate levels in all collection system manholes. | Monthly |
| Water level measurements in the C ('outside' sheet pile wall) and D (between landfill and sheet pile wall) series monitoring wells. | Quarterly |
| Record flow rate and hour meter readings in the main, south and west pump stations. | Monthly |

This program was initiated midyear after sending the letter to inform the MOE that they were going ahead with the recommended reduction. However, in late 2010 in discussions with the MOE at the District office it was found out that this reduction needed to go through the approvals branch as well. As this was the case, the City re-implemented the current monitoring program and has forwarded an amendment to the Approvals Branch for this reduction.

# 4. Groundwater Monitoring

## 4.1 The 2010 Groundwater Monitoring Program

Groundwater levels are collected from all monitoring locations four times per year. Monthly water levels are measured at all leachate locations and from selected lower till and bedrock locations. All of the data are complied and presented in Appendix A. Figure 3 is a site plan showing all monitoring locations around the site.

Groundwater quality monitoring is conducted at the landfill in accordance with Condition 17.0 of the amended C of A. Table 5, below, outlines the monitoring locations and frequency of sampling conducted during 2010. The groundwater quality results are provided in Appendix C. Standard QA/QC groundwater quality data are not provided in this report but are available on request. It should be noted that the reduced groundwater monitoring program, as recommended in the 2008 annual report, was implemented in the summer of 2010, after notification to the MOE Guelph District office. However, in the late fall, it was determined by the MOE District office, that although they agree, the reduction request would still need to go through the approvals branch. As this was the case, the original monitoring program has been re-instated and an amendment has been forwarded to the Approvals Branch for the monitoring reduction.

The focus of the groundwater-monitoring program is intended to evaluate water quality based on the leachate indicator parameters and the critical leachate parameters. These parameter lists were agreed upon by the Technical Experts during discussions leading up to the hearing for continued operations of the Eastview Road Landfill[3]. In 1998, the MOE, in their review of the 1997 Annual report, accepted the recommendation for the reduction of the groundwater analytical parameter list to reflect only the leachate indicator parameters and the critical leachate parameters. This parameter list has been in effect since the 1998 monitoring period. In 2001, Iodide (I) and Bromide (Br) were also added to this list.

**Table 5. Summary of 2010 Routine Groundwater Sampling**

| Formation | Monitor Locations | Sampling Program (per year) | Actual Sampling Frequency and Comments |
|---|---|---|---|
| **Waste** | 51-IR, 59-I, 65-I, 67-I | Two Times | Two times during 2010 |
| **Waste/Fill** | 51-II, 57-I, 58-I, 66-IR | Two times | Two times during 2010 |
| **Outwash** | 56-IR | | Once in 2010 (insufficient volume for sampling) |
| **Beneath Waste** | 55-IR, 61-IR, 63-I | | Not sampled in 2010 (insufficient volume for sampling) |
| **Sandy Outwash** | 2-I, 10-II, 10-III, 13-IV, 13-V, 14-II, 14-III, 15-IV, 15-V, 18-III, 30-I, C2-I, C6-I, C9-I, C10-I, C11-I | Two times | Two times during 2010 |
| | 17-IV, 35-I | | Once in 2010 (insufficient volume for sampling) |
| | 16-V | | Not Sampled (insufficient volume for sampling) |
| | 2-II, 9-I, 11-II, 28-I | One Time | Once during 2010 |
| **Upper Till** | 4-IIIR, 5-II, 11-I, 13-III, 15-III, 16-IV, 21-IR, 60-II, 60-III | Two Times | Two times during 2010 |
| | 17-III, 19-IV | One Time | Once during 2010 |
| **Lower Till** | 4-IIR, 53-IIR, 60-I | Two Times | Two times during 2010 |
| | 11-III, 13-II, 15-II, 16-I, 16-VI, 17-II, 19-II | One Time | Once during 2010 |
| **Bedrock** | 4-IR, 37-I, 50-I, 53-I, 90-II, 91-I, 93-I, 94-I, 95-I | Four Times | Four times during 2010 |
| | 14-IV, 16-VII, 54-I, 20-IR | Two Times | Two times during 2010 |
| | 92-I, | | Once in 2010 – Decommissioned due to Development |
| | 9A-I, 13-I, 15-I, 17-I, 19-I | One Time | Once during 2010 |

*Chemical Analyses:*
*a) Conductivity, pH, Alkalinity, Phenols, ICAP Metals (including Major Cations Ca, Mg, Na, K and Trace Metals I, Br, Cr, Ni, Fe, Mn, Zn).*
*b) Major Anions (including $SO_4$, Cl, $NO_3$, $NO_2$).*
*c) Field Parameters: pH, conductivity, temperature.*

*3. 1995 Annual Report - Section 6.2.3, pages 96-97.*

## 4.2 Groundwater Elevations and Flow Directions

From the collected data, groundwater flow maps are produced for the shallow groundwater system and the bedrock groundwater system (Figures 12 and 13). As well, groundwater elevation trends for selected shallow groundwater, lower till and bedrock monitors are provided in Appendix A. In general, groundwater elevations across the site follow seasonal trends such that water levels are higher during the wetter periods of the spring and fall but decrease during the usually drier summer months.

Overall, groundwater levels in 2010 are generally lower than the last three years. This would be expected as it was significantly drier in 2010, when compared to 2008/2009, and even slightly drier than in 2007. Generally, groundwater elevations showed minor to no increases from the fall lows in 2009 into early spring of 2010. Elevations then increased significantly into the mid-summer, peaking at elevations lower than the upper peaks observed in the past few years. Elevations then began to decrease slightly until the end of the year to lows that were higher than seasonal lows in 2009 and in 2007. Generally, both bedrock and overburden monitors exhibited a similar trend. The overall trends observed in 2010 are generally typical of historical trends exhibiting the seasonal influences. However, the seasonal variability was found to be less at around 0.5 to 1 m, whereas in typical years the seasonal variation is generally between about 1.5 to 2 m. This is most likely a reflection of the very dry year, most noticeably in the winter/spring and fall with a wetter than normal summer.

Further to the above, there are two monitoring locations (16 and 90), installed in 2003 that monitor the water levels in the deep bedrock aquifer. Currently, there is limited data (6 years) to assess long term trends in the deeper bedrock, however, there are now sufficient water level measurements to warrant looking at the short term trends. As requested by the MOE technical reviewer, the total pumping volume from the northeast quadrant production wells was also reviewed over this period to determine short term trends. Initial water levels collected from these locations were variable. Although, there is only limited data (no historical levels), these initial variations appeared to be related to pumping of the municipal wells in the northeast quadrant. It was noted during the early part of 2004 when pumping was increased (within permitted rates) at the municipal wells, a corresponding decrease in water level measurements from these two monitoring locations was observed. As well, when pumping was decreased, the water levels at the two monitors increased into the summer. Water levels during the latter portion of the year began to decrease, similar to the normal seasonal declines observed, until the end of the year of 2004, even though there was a reduction in pumping as well.

Throughout 2005, 2006 and 2007, pumping rates remain fairly constant. During this period, water levels generally followed the seasonal trends as observed at the site in the shallow bedrock and overburden, that is levels increased throughout the spring into the early summer and then decreased into the fall period. However, the overall seasonal change was higher in the deep bedrock than in the shallow bedrock at around 2-3 m in difference. In 2008, there was a slight increase in the overall all pumping volumes. During this period, water level elevations did show a general increase into the spring period with only a slight decrease in the summer and then an overall increase again until the end of the year. As with the shallow bedrock, there was generally very little variation in 2008 (about 1.5 to 2 m) due to the wetter year. In 2009, pumping volumes were generally similar to 2008 although somewhat more variably higher until about August of 2009. From August until the end of the year the pumping became more consistent and at a slightly higher rate. During this period, water levels continued to increase throughout the winter into the late spring. Water levels then declined throughout the summer and then stabilized. Once again, this was similar to the pattern observed in the shallow bedrock and overburden in 2009.

In 2010, these locations also experienced a similar trend as that observed in the upper bedrock. Both locations exhibited a decline into the beginning of 2010 and then increased significantly in to the summer. Similar to the shallow bedrock, the summer peak was lower than previous years. From these summer highs, the water levels generally declined until the end of the year. The levels recorded at location 90 by the end of the year were observed to be higher than historical seasonal lows and slightly higher than 2009, whereas at location 16, the end of year lows

were similar to slightly lower than historical lows, but much higher than 2009. Further to the above trends, the decrease observed in the latter part of the 2009 was on the order of 6 m. However, during the period between 2005 and 2008, seasonal variation was generally in the order of 2 to 3 m. As with the upper bedrock, the overall seasonal decrease in the latter half of 2010 was much lower than short term norm, at only between about 1 to 2 m.

As discussed earlier, in 2003 and 2004 there appeared to be some correlation to water levels with respect to the pumping. However, there were no apparent effects from pumping throughout 2005 into 2007 based on the water level trends observed. This would be expected as pumping volumes remained fairly stable during this period. During 2008, there were also no apparent affects from the pumping on water level trends even though pumping volumes did show a slight increase. A similar observation was noted in 2009, as the water levels continued to increase into the early part of the year even though overall pumping had begun to increase. By the end of August, pumping volumes had increased again (slightly over 2008) and stabilized, however, water declines occurred prior to this change, which indicates that this was related to seasonal variation and not the increase in pumping. Unlike the shallow bedrock and overburden, the deep bedrock water levels did not exhibit any increase into the late fall.

The 2010 data, indicates that the pumping volumes still remained at the higher levels (generally within historical norms), but were slightly lower than the latter half of 2009. As indicated above, the water levels continued to decrease until early 2010 and then increased into the summer when there was no change in pumping. As there was no change in pumping between 2009 and 2010, and only slightly lower pumping in 2008, with no apparent effects noted between 2008 and 2009, it is most likely the greater decrease in seasonal change noted in late 2009 and early 2010 is related to lower surplus precipitation in the late fall/winter-early spring.

Overall, comparing the water levels collected to date from the deep monitors with the pumping volumes in the northeast quadrant, indicate that there may be some correlation as evident in 2003 and 2004, when the pumping volumes were more variable. Since this time, the pumping volumes were more stable and water level trends appeared to only exhibit season variation similar to the shallow bedrock and overburden, although seasonal variability was higher. Further, even though the pumping volumes did increase in both 2008 and 2009, although still below the maximum historical volume, there was no clear evidence that it was having a noticeable effect on water levels, even though there was a significant drop in water levels noted in late 2009.

In 2010, pumping continued at the higher rate, although slightly lower than in 2009. During this period there was still no clear evidence of an effect from pumping on the water levels as the seasonal trends observed are most likely related to the drier year and the distribution of precipitation. However, further data will be required to determine the overall affect of pumping as it relates to the water levels in the deep aquifer.

The shallow groundwater system lies in the sand and gravel outwash and/or in the upper part of the silty sand till where outwash is absent[4]. Leachate elevations in monitors 51-IR and 59-I in the landfill waste are found to be perched above the shallow groundwater system and are not used in the evaluation. Figure 12 illustrates the shallow groundwater flow in May 2010. The groundwater flow is similar to previous years[5].

Of note, is the local control that the PLCCS exerts on the shallow groundwater flow system within the landfill. As discussed previously in Section 3.4, the leachate collection system acts to lower leachate levels inside the sheet pile wall below the groundwater levels outside the sheet pile wall, thereby creating inward flow across the wall. This prevents any leachate flow out of the landfill site to the shallow groundwater system. This is best demonstrated along the southwest leg of the south collector. Along this portion, leachate levels measured in the system were, on average throughout most of the year, around 339.85 mASL, whereas outside the system the groundwater levels were on average 342.12 mASL.

*4. The geology of the site has been extensively documented in previous reports; see 1995 Annual Report Section 4.2, pg. 38*

*5. 1995 Annual Report, Section 4.3, page 40, Figure 10, 1996 Annual Report, Section 4.2, page 45, Figure 17, 1997 Annual Report Section 4.2, Figure 13, 1998 Annual Report, Section 4.2, Figure 13. 1999 Annual Report, Section 4.2. Figure 13.*

Figure 13 illustrates the bedrock groundwater flow in May 2010 below the landfill. The groundwater flow is generally similar to previous years[6]. A total of three new locations were completed in September 2007, near locations 37/50. These locations were intended to aid in the refinement of the shallow bedrock groundwater flow in this area (near the former entrance to the landfill). These locations have been included as part of the more detailed monthly water level program. It should be noted that these newer locations were installed with a similar screen length and in the approximate same stratigraphic horizon as location 37-I. The addition of these locations on the groundwater flow map continues to show that groundwater flow in the shallow bedrock is still overall towards the landfill from this area and that 37-I is still interpreted as being upgradient.

However, as discussed in the interim report of the further assessment of Location 30/50, the groundwater flow in the vicinity of this area was refined. As has been commented on by the MOE reviewer, flow in this area could also be interpreted to be towards location 50-I in the immediate vicinity of the scale house from the landfill. With the more recent information, it is still apparent that 37-I is upgradient of the landfill based on the water levels collected at location 94-I. Some component of flow does appear to be directed towards location 50-I from 94-I and 37-I as confirmed by 95-I (between 37-I and 50-I). However, measured groundwater elevations at recent location 93-I (further down Eastview Road to the west) indicates that it is downgradient of 50-I. Therefore, although there is some component of flow that may be towards location 50, it is still expected that overall bedrock groundwater flow ultimately is directed to the west as suggested in our previous and current interpretation. This is further supported by the bedrock topography which indicates an incised bedrock low feature trending from high to low from the east, as discussed in the interim letter report.

In conclusion, the current interpretation of groundwater flow directions around the site have generally remained similar to previous years.

Further to the general discussion above, the water levels at bedrock location 50 have shown an anomalous trend and levels during 2010, as first noted in mid 2009. Water levels in this well did show an overall trend similar to the other bedrock location into the summer of 2010, however, the water level drop at this location in the fall was much greater and at levels that were significantly lower that historical. The reason for this trend and apparent anomalously lower water levels is unknown. Discussion with Landfill staff indicated that there was no apparent reason for this change. Further water level data are required to determine if the trends return to historical patterns. Bedrock location 37 also exhibited what appeared an anomalous trend in 2010. It appeared to show the seasonal trend but rapidly increased in the summer (no gradual increase) by less than 0.5 m then decreased less than 0.5 m in the fall as well as having an anomalous level recorded in the summer. Discussions with landfill staff have indicated that construction activities, related to the housing development to west, have been occurring around this location since mid-summer, which may be the cause of these anomalous levels.

In order to assess downward groundwater flow through the till, several locations were selected to show vertical groundwater elevation trends with depth (Appendix A). The selected locations were chosen to illustrate the relationship of groundwater elevations in the outwash/upper till, lower till and bedrock. These figures also illustrate the seasonal groundwater elevation fluctuations across the site. These figures show that in most cases, downward gradients are observed across the till below the site.

Of importance are the gradients below the landfill footprint. Examining the 2010 gradients between the water levels measured in the outwash beneath the waste only and the interpreted bedrock groundwater surface, the estimated vertical gradients beneath the landfill ranged from 0.2 to 0.21 m/m or on average about 0.11 m/m. The downward movement of groundwater, below the landfill, is estimated to be only 0.31 to 4.6 cm per year or on average 2.39 cm per year. These gradients and downward flow velocities are generally similar to those observed in previous years.

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*6. 1995 Annual Report - Section 4.3, page 43, Figure 12, 1996 Annual Report, Section 4.2, page 45, Figure 18, 1997 Annual Report Section 4.2, Figure 14, 1998 Annual Report, Section 4.2, Figure 14. 1999 Annual Report, Section 4.2, Figure 14.*

To put these actual flow velocities into perspective, on average it would take about 1,000 years for the leachate to move through the till into the underlying bedrock, based on the 2010 water levels.

In conclusion, vertical gradients towards the bedrock are on average very low. The estimated downward flow velocity is also very slow, in the order of only a few centimetres per year.

## 4.3 Leachate Quality

Section 3.1 examined the quality of the leachate in the PLCCS, as it related to sewer discharge. In this section, the leachate quality measured in groundwater monitors in the waste, and in the outwash beneath the waste, is presented. It is this leachate quality that is most relevant to assessing possible impacts on groundwater quality in the natural environment.

Chemistry results for the leachate are presented in Appendix C. Table 6 below, is a summary of the critical leachate and leachate indicator parameter list for both the waste and outwash below the waste during 2010. Figure 15 shows the locations of the leachate monitors as well as all the overburden monitors.

**Table 6. Summary of Leachate Quality from the Waste and Outwash Beneath the Waste in 2010**

| Parameters | | Waste | | | | Outwash Beneath Waste | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Avg. | Min. | Max. | Samples | Avg. | Min. | Max. | Samples |
| **General** | pH | 7.79 | 7.7 | 7.85 | 4 | 7.66 | 7.3 | 7.96 | 9 |
| | Conductivity (μS) | 18450 | 17000 | 19700 | 4 | 4024 | 1250 | 6640 | 9 |
| | Alkalinity (mg/L) | 7158 | 6510 | 7890 | 4 | 1115 | 507 | 2560 | 9 |
| | Hardness (mg/L) | 1925 | 1500 | 2300 | 4 | 1263 | 600 | 2000 | 9 |
| **Critical Indicators** | Chloride (mg/L) | 2333 | 2120 | 2610 | 4 | 714 | 119 | 1520 | 9 |
| | Boron (mg/L) | 26.5 | 20 | 34 | 4 | 2.46 | 0.1 | 8 | 9 |
| | Phenol (μg/L) | 97 | 70 | 140 | 4 | <7 | <1 | 36 | 9 |
| | Iodide (mg/L) | 2.2 | 2.1 | 2.3 | 4 | <0.76 | <0.1 | 2.6 | 9 |
| **Leachate Indicators** | Calcium (mg/L) | 50.75 | 33 | 72 | 4 | 193 | 110 | 350 | 9 |
| | Sodium (mg/L) | 1775 | 1600 | 1900 | 4 | 363 | 28 | 710 | 9 |
| | Magnesium (mg/L) | 435 | 330 | 550 | 4 | 187 | 76 | 400 | 9 |
| | Potassium (mg/L) | 980 | 790 | 1200 | 4 | 26 | 1.4 | 100 | 9 |
| | Iron (mg/L) | 7.1 | 2.3 | 11 | 4 | <11 | <0.1 | 45 | 9 |
| | Manganese (mg/L) | <0.03 | <0.002 | 0.043 | 4 | <0.25 | <0.02 | 0.73 | 9 |
| | Ammonia (mg/L) | 912.5 | 860 | 1000 | 4 | 20 | 0.88 | 83 | 9 |
| **Other Constituents** | Sulphate (mg/L) | <16 | <10 | 22 | 4 | 60 | 1 | 264 | 9 |
| | Bromide (mg/L) | <9.5 | 9 | <10 | 4 | <4.4 | <1 | <10 | 9 |
| | Nitrate (mg/L) | <1.75 | <1 | <2.5 | 4 | <0.6 | <0.1 | 4.7 | 9 |
| | Nitrite (mg/L) | <0.175 | <0.1 | <0.25 | 4 | <0.02 | <0.01 | 0.07 | 9 |

These concentrations compare closely with previous years[7]. A full description of the historical leachate quality evaluation is discussed in Section 6.2.3.2 (page 100) of the 1995 Annual Report, Gartner Lee Limited dated June 1996.

In general, the leachate quality is characterized by elevated concentrations of chloride, boron, phenols (critical leachate parameters), sodium, potassium, magnesium, iron, manganese, ammonia and alkalinity (leachate indicator parameters). Also, BOD, COD and oil and grease have been found to be elevated. In 2002, iodide and bromide were added to the list as part of an investigation conducted for locations 37/50. Both of these parameters are found to be elevated in the leachate as well.

7. *1995 Annual Report - Section 6.2.3.2, pages 103-107, Table 21, 1996 Annual Report-Section 4.3 page 50, Table 14, 1997 Annual Report, Section 4.3, Table 10, 1998 Annual Report, Section 4.3, Table 10. 1999 Annual Report, Section 4.3, Table 10.*

The concentrations of these parameters vary with location across the landfill but in most cases are elevated above the background concentrations. However, it should be noted that parameters such as chloride and sodium might be elevated in the background due to other sources such as road salt. As well, parameters such as iron, manganese, and ammonia can be elevated due to natural background conditions, in either the sandy outwash (manganese) or the wetland peat (iron and ammonia).

As mentioned in the previous annual report, a change in leachate quality was noted at monitor 51-II, where an increase in leachate strength had occurred. This increasing trend began in late 2006 and persisted into early 2008. Since 2008, no further increase was observed with the concentrations remaining at the higher levels. This monitor is installed in the outwash beneath the waste. Since the increase was sudden, this change may be related to a compromised monitor (possible break or crack in monitor due to shifting) as observed at other locations on the landfill. Although this increase has occurred, the current concentrations observed for the leachate indicators for the most part are still around the upper range found in the outwash beneath the waste. Should a further increase continue, this monitor should be inspected to determine if it has become fully compromised. If this monitor becomes fully compromised, it should be replaced.

Also as mentioned in the previous annual report, anomalous leachate quality was noted in November 2008 at 51-IR. Several leachate indicator parameters increased significantly, although chloride was reported as less than the laboratory detection limit. In the spring and summer of 2009, the chloride was once again similar to previous years. However, most of the other indicator parameters remained slightly elevated compared to the historic concentrations for monitor 51-IR. In the fall of 2009, a further increase occurred for all leachate indicators, which persisted into 2010. In fact, the leachate quality concentrations observed are approaching the original leachate quality observed in 51-I, which was replaced by 51-IR in 2003. Monitor 51-I became compromised in 2000 (monitor pipe broken) caused by a blockage. This monitor was constructed in the early 1990s with an extra long screened interval from 22.6 m to 7.3 m below ground surface and it was inferred that the monitor broke within the screen due to a shift in the landfill. As this was the case, the replacement monitor, 51-IR, was constructed with a shorter screened interval from 22 m to 15.9 m to reduce the risk of a similar problem. Since this time, the leachate quality from the replacement monitor was found to be slightly lower than the original monitor. Since this latest increase was also abrupt, it is possible that this monitor has been partially compromised (possibly cracked) allowing the higher waste leachate that the original monitor reflected to now leak into the monitor. This change in leachate quality is not considered an issue as it remains within the concentrations observed at the other waste monitor 59-I. However, it should be monitored closely to ensure that a full breakage does not occur. If this monitor becomes fully compromised, it should be replaced.

Routine organic analysis of the leachate is to be performed once per year. This sampling usually took place in the summer and was inadvertently missed in 2010. As discussed with landfill Staff, this sampling will be completed in 2011.

Of all the leachate indicator parameters identified, only boron, chloride and phenols are considered as critical leachate indicator parameters. As the above parameters best characterize the leachate, evaluation of leachate quality within and below the landfill will focus on these parameters. Further to these traditional indicator parameters, iodide and bromide have been included in the leachate indicator parameter list. Recent studies have shown that iodide can be elevated in landfill leachate, as observed in the leachate from Eastview. Further, brine (salty) water quality is also enriched with iodide, however, road salt impacted water are deplete in iodide. As this is the case, iodide has been added to the critical leachate parameter list.

As observed historically, the concentrations of leachate varied widely throughout and below the landfill during 2010. The ranges observed were: chloride from 119 to 2,610 mg/L; boron from 0.1 to 34 mg/L; and phenols from less than the laboratory detection limit (1) to 140 μg/L. These ranges are similar to those observed in the past. As well, the

range for iodide was from less than the laboratory detection limit (0.1) to 2.3 mg/L. The higher concentrations are found in the waste and the lower concentrations are found predominantly in the outwash beneath the waste. In 2010, four waste monitors (51-IR, 59-I, 65-I and 67-I) and five outwash monitors (51-II, 56-IR, 57-I, 58-I, 66-IR and 63-I) were routinely sampled. Location 55-IR, 61-IR and 63-I (outwash) could not be sampled due to insufficient volume.

Spatially, leachate quality has remained similar at most locations, with the exception of the increase noted at location 51.

Leachate concentrations, as in the past, are significantly higher in the waste than in the outwash beneath the waste. During 2010, the average concentrations of the critical leachate parameters chloride, boron and phenol as well as iodide were:

a) 2,333 mg/L, 27 mg/L, 97 μg/L and 2.2 mg/L, respectively, in the waste; and
b) 714 mg/L, 2.46 mg/L, <7 μg/L and <0.76 mg/L, respectively, in the outwash beneath the waste.

In conclusion, the leachate quality remains variable across the site and leachate concentrations are still significantly lower in the outwash below the waste than in the waste.

## 4.4 Shallow Groundwater Quality

### 4.4.1 Measured Exceedances of Reasonable Use

As discussed previously in Section 3.4.4, the PLCCS is operating as designed to prevent leachate flow from the landfill into the shallow groundwater system around the site. Therefore, there was no exceedance of Ministry of the Environment Guideline B7, the Reasonable Use Guidelines (RUG), in the shallow groundwater attributable to leachate release in 2010.

The installation of the PLCCS was completed at the site as leachate impacts were once detected in the shallow groundwater system to the south of the site. The intent of the PLCCS was to mitigate any further off-site leachate impacts from occurring.

Shallow groundwater monitoring subsequent to the installation of the PLCCS have been and still are used to confirm that the previously impacted groundwater is, in fact, renovating and that no new leachate inputs are present. While the presence of other sources of impacts such as road salt can complicate the analysis, the following is a discussion of the 2010 results.

The residual leachate impacts were best observed in monitor 16-IV and historically in monitors 2-I and C6-I. Chemical trend plots for leachate indicator parameters chloride and boron as well as leachate indicator parameters ammonia, alkalinity and sodium are provided in Appendix C (Figures C1 to C3).

As discussed in previous years[8], monitor 2-I had exhibited decreasing trends since 1992, after the completion of the PLCCS. In 1996, the trends showed that the water quality was beginning to stabilize indicating that the residual leachate that was present in the past had mostly dissipated. There is no indication of any residual leachate effects in 2010 in monitor 2-I. However, in November 2007, both chloride and sodium appeared to increase. This increase persisted into mid 2008, and then began to decrease. No other parameters experienced this increase. In discussions with landfill staff, it was noted that the maintenance shed at the top of the hill just west of this location

*8. 1995 Annual Report - Section 6.2.3.1, page 99.*

was being used by City staff for storage of equipment. As this area was in use during the winter months, road salting was occurring. Therefore, the increase of chloride and sodium was most likely related to runoff from this area. As of the spring of 2009, the City was no longer using this building and the concentrations at 2-I continued to decrease to pre-2007 levels. This has continued into 2010.

Monitor C6-I, closer to the sheet pile wall, still exhibits no appreciable trends during 2010. Although concentrations of both chloride and sodium remain elevated, the concentrations of boron, phenol and ammonia continue to be low and still indicate that there are no leachate effects present in 2010. Further analysis of the groundwater continues to indicate that this location is showing a strong road salt signature during 2010, as observed since 1996.

Location 16, as observed since 1998, continues to exhibit very little variation in groundwater quality. Groundwater quality still indicates that there are some very minor residual leachate impacts at this location. Chloride concentrations have remained similar, since about 2002. As well, boron continues to decrease and remains at a concentration of 1.5 mg/L when compared to those observed in 1998 and 1999 (around 3 mg/L). The boron concentration was above 4 mg/L in 1991. This continued decrease demonstrates that this monitor is still clearing up. This is further demonstrated by a continued increasing trend in sulphate and calcium as the boron decreases. Sulphate is generally found to be higher in the natural groundwater than in the leachate. During 2010, all other leachate indicator parameters are similar to historical levels. It is not surprising that residual leachate still exists at this location. It has been noted in previous reports that it may take many years for the residual leachate to clean up due to the very low groundwater flow velocities along this part of the site. However, it is encouraging to observe that decreasing residual impacts continue and concentrations are now at very low levels.

Locations 10 and 13 still exhibit increased and/or high concentrations of sodium and chloride as indicated in previous reports. This has persisted into 2010 and has been related to road salt due to their locations beside the roadways. A more in-depth investigation undertaken in 1996 in response to PLC concerns found that there were no increasing trends for either alkalinity or boron; however, higher than background ammonia was present and iron was also elevated, especially at location 13. An extensive groundwater analysis was performed which concluded that the sodium and chloride were from road salt. Further analysis of the groundwater quality at these locations in 2010 continues to indicate a road salt signature as discussed in the 1996 response to the PLC. The ammonia and iron are considered to be naturally occurring (coming from the peat). However, starting in 2009, elevated phenolics were observed at 10-III. This change in water quality corresponds with the installation of the water main along Eastview Road, which passed very close to this location. It is therefore concluded that this is the cause of this change.

Further to the above locations showing road salt impacts, in mid 1999 chloride concentrations increased at location 14 and were in the range of 300 to 400 mg/L. However, no increase in sodium was observed at that time. This increase in chloride was attributed to the movement of road salt impacted waters from the upgradient location 13. This increase was the initial front of road salt impacted water to reach location 14, which is why only chloride had increased. This occurs, as chloride is more mobile than sodium. In 2008, water quality at this location remained similar, although there now appears to be some seasonal increases in chloride observed since 2003. As well, there has now been a slight increasing trend in sodium. In the fall of 2008, chloride and sodium at locations 13 and 14 increased, most noticeably in the shallow monitor 13-V. This jump may be related to the reconstruction of the area at the corner of Watson and Eastview Road as part of the widening of Watson Road. In 2009, although concentrations have decreased they are still elevated compared to the pre construction period. During 2010, concentrations are continuing to become close to historical levels.

Since 1999, there has been a very minor increase in boron at monitor 15-IV from around 0.2 mg/L to around 1 mg/L by the end of 2002. No other parameters are showing this same trend and further analysis of the data did not indicate any leachate effects. During 2003, boron began to decrease and was slightly above historical levels, although it again increased to around 0.9 mg/L in 2004. Concentrations began to decrease again into 2005 and

remained similar into 2009. Although there has been an increase in the boron concentration, the actual concentrations were still low (around 0.6 mg/L) and well below the RUG guideline. The presence of this boron is most likely related to minor residual leachate impacts similar to that observed at Location 16. Further assessment of this water quality will be undertaken as more data become available.

Further to the above discussion, review of water quality further to the south of Eastview Road at monitor 9-I has shown a slight increasing trend for chloride and sodium starting in 2007 which persisted into 2008. A slight decrease occurred in 2009 but showed a further minor increase during 2010. This is not considered to be leachate related as the PLCCS is working as designed. Similar to 2-I, the most likely source of the sodium and chloride initially may be from runoff from the maintenance building that was used by the City. However, after further review, the increase also began to occur around the same time as the construction activities associated with the housing development on the south side of Eastview Road. These activities have been observed to be very close to the Hadati Creek and location 9. Further assessment of this water quality will be undertaken as more data become available.

*Guideline B7 Criteria*

Although there is no new leachate migration downgradient of the landfill, the monitors in this area were still compared to the RUG (Table C7 Appendix C). As observed on this table, there are several locations that exceed the Guideline B7 criteria (RUG) for some parameters. Of all the parameters that exceed the B7 limit, only boron at location 16 is considered related to residual historical leachate impacts as discussed above. All other parameters that exceeded the B7 limit are considered to be either natural or a result of road salt impacts. These include:

a) Chloride and sodium at locations 10-II, 10-III, 13-IV and 14-II. The parameters exceed the B7 limit as a result of road salt impacts, as discussed above.

b) Sulphate at location 18-III. High sulphate concentrations at location 18 have been discussed in the past and are related to gypsum (1992 Groundwater and Surface Water Monitoring Report – Eastview Road Landfill Site, GLL 93-134, dated June 1993).

c) *Boron at location 16-IV. Residual leachate effects as discussed above.*

d) Elevated iron and manganese were once again noted at locations 2, 9, 10, 13, 14, 15, 16, 18 and 35. These elevated parameters are considered naturally occurring and are related to the wetland and associated peat (iron) and in the outwash sand (manganese), as discussed in Section 4.3.

The chemistry trends to the west of the site are provided in Appendix C (Figures C4 to C6). Groundwater quality in this area is similar to previous years showing road salt effects and exhibit no leachate impacts, although an increasing trend in road salt effects has been noted at 30-I. This would be expected as groundwater flow from the west is towards the site. However, in late 2009, chloride and sodium concentrations abruptly dropped by half and hits of phenols began to occur. It appears that this drive point monitor may have become compromised allowing surficial water from the wetland to infiltrate in. Landfill staff should inspect this monitor to determine if it has become compromised.

In conclusion, there are no new exceedances of Reasonable Use measured in the shallow groundwater downgradient of the landfill. Some exceedances due to very minor residual leachate effects still exist, but these are continuing to decrease over time.

### 4.4.2 Predicted Exceedances of Reasonable Use

If the PLCCS continues to work as designed to prevent any further off-site migration of leachate, no new exceedances of the Reasonable Use Guidelines related to the landfill are predicted in the shallow groundwater.

## 4.5 Bedrock Groundwater Quality

### 4.5.1 Measured Exceedances of Reasonable Use

Nineteen bedrock monitoring locations are currently routinely sampled at the Eastview Road Landfill. These locations are shown on Figure 16. Bedrock groundwater quality results are provided in Appendix C with the 2010 results summarized in Table 7.

Groundwater quality in the bedrock in 2010 is generally similar to previous years[9] for most parameters. As discussed in previous reports, the average chloride and conductivity had been showing an increasing trend over the last several years related to an increasing trend noted most noticeably at location 37, as it was originally included in the statistic below. Further, location 91-I has also shown variable elevated chloride as well, as well as the recent location 95. These will be discussed further below. No other leachate indicator parameters showed any changes. As this was the case, both 37-I, 91-I and 95-I continue to be excluded from the Table 7.

**Table 7. Summary of Bedrock Groundwater Quality During 2010**

| Parameters | | Bedrock Groundwater Summary | | | |
|---|---|---|---|---|---|
| | | Avg. | Min | Max. | Samples |
| **General** | pH | 8.11 | 7.85 | 8.3 | 37 |
| | Conductivity (μS) | 446 | 284 | 772 | 37 |
| | Alkalinity (mg/L) | 200 | 147 | 362 | 37 |
| | Hardness (mg/L) | 191 | 73 | 420 | 37 |
| **Critical Indicators** | Chloride (mg/L) | <15 | <1 | 76 | 37 |
| | Boron (mg/L) | <0.08 | <0.01 | 0.66 | 37 |
| | Phenol (μg/L) | <1 | <1 | <1 | 37 |
| | Iodide | <0.1 | <0.1 | <0.1 | 36 |
| **Leachate Indicators** | Calcium (mg/L) | 40 | 15 | 110 | 37 |
| | Sodium (mg/L) | 23 | 8.6 | 44 | 37 |
| | Magnesium (mg/L) | 22 | 7.2 | 40 | 37 |
| | Potassium (mg/L) | 1 | 0.6 | 2.2 | 37 |
| | Iron (mg/L) | <0.22 | <0.1 | 0.56 | 37 |
| | Manganese (mg/L) | <0.009 | <0.002 | 0.037 | 37 |
| | Ammonia (mg/L) | <0.21 | <0.05 | 0.45 | 37 |
| **Other Constituents** | Sulphate (mg/L) | <16 | <1 | 60 | 37 |
| | Bromide | <1 | <1 | <1 | 37 |
| | Nitrate (mg/L) | <0.1 | <0.1 | <0.1 | 37 |
| | Nitrite (mg/L) | <0.01 | <0.01 | <0.01 | 37 |

*Notes: Monitor 37-I and 91-I were not included in the above table due to elevated chloride.*

Long term trends based on the critical leachate indicator parameters boron and chloride have been evaluated. Figures 17 and 18 are the trends for bedrock quality north and south of the site. Figure 17 illustrates the boron trends. As discussed in the past, during a laboratory change in mid-1993, boron trends became scattered. In 1995, this scatter began to show a consistent but stable trend. This trend has persisted into 2010. There is no indication of leachate impacts in the bedrock groundwater based on boron alone.

Figure 18 illustrates the chloride trends. As discussed in the past, there was a slight scatter just after a laboratory change in mid-1993, however, the chloride trends have exhibited very little variation over time. As stated in previous reports, Location 37 still exhibits an increasing trend into the first half of 2010, as was originally observed in 1994. Also, location 50-I, that had exhibited a slight increasing trend from 1994, which had become stable at around

*9. 1995 Annual Report - Section 6.2.3.5, page 131 and Table 23 pages 137 and 138, 1996 Annual Report, Section 4.5, Table 15, 1997 Annual Report, Section 4.5, Table 11, 1998 Annual Report, Section 4.5, Table 11., 1999 Annual Report, Section 4.5, Table 11.*

50 mg/L from 2003 to 2008, has shown a further slight increase into 2010. In 1998, chemical analysis of these locations showed that there might be a slight shift in the chemistry towards a road salt or brine water signature at 37-I. As well, to a lesser extent, 50-I was also indicating a possible change in chemistry that may be starting to trend to a road salt or brine water signature. In 2008, the data collected continued to show that this trend was occurring in 37-I with a further shift towards a road salt or brine water signature.

To address the increasing chloride in the above wells, an assessment to determine the possible source of these increasing chloride concentrations was conducted (i.e., whether they were from a possible leachate source or from another source). This assessment was discussed in the 2002 annual report.

The conclusion of this assessment was as follows:

> *"In conclusion, with the existing information collected to date it does not appear that the change in water quality at monitors 37-I and 50-I is landfill related. The information suggests that the change is possibly related to a high chloride/low iodide source upgradient of the landfill. Although not conclusive, the only potential source identified in the area beyond the landfill would be from road salt. If this were the case, a pathway would be required to allow chloride impacted waters to enter the bedrock to the west of the landfill. The above assessment did identify potential pathways in the overburden (granular soils) west of the site, however, the actual presence and extent is not known. Therefore, to determine if the cause of the chloride increase is from an upgradient source, further drilling to the west of the landfill would be required.*

As recommended by the MOE, six additional bedrock monitors were installed around the site including one location west of location 37 (Figure 3, location 92) in 2003. Groundwater levels collected from these locations have confirmed the interpreted groundwater flow in the bedrock, along Eastview Road.

Further, the assessment of the geology immediately southwest of location 37, at location 92, showed that the bedrock surface was higher, inferring that an incised bedrock low trends though the site. This information suggests that locations 37 and 50 would be upgradient of the landfill, as in past interpretations. This was further confirmed in the interim report on the further assessment of location 37/50. However, even thought the MOE reviewer agrees that this interpretation is valid, groundwater flow could also be interpreted as potentially away from the landfill. This concern was raised based on the continued increase of chloride at location 37-I and the fact that 37-I could be interpreted to be upgradient of 50-I.

Based on this, it was recommended that further investigation in this area was needed to better refine groundwater flow. Therefore, three new bedrock locations were completed in the area around Location 37/50, including near the former scale house as requested by the MOE. These new locations were completed in September 2007 and are designated 93-I, 94-I and 95-I (Figure 3). The construction of these new monitors is similar to that of 37-I, which was originally drilled as a water well and has an open hole of around 5 m deep. The intent was to be able to compare these additional locations with 37-I. A further refinement of the groundwater flow based on the new locations was completed as part of the interim report assessment and discussed in Section 4.2. A summary of the water quality result assessment as discussed in the interim report is provided below.

Water quality sampling has been conducted at the new locations at a frequency of four times a year, starting in November 2007. Review of these data continues to show that the chloride concentrations at 37-I have continued to increase as discussed in previous annual reports. Since 1995, concentrations have increased from around 10 mg/L to around 300 mg/L in 2008 and 2009. A minor increase of chloride was also noted at 50-I where chloride concentrations have increased from around 20 mg/L in 1995 to around 60 to 70 mg/L in 2008 and 2009.

The recent data collected from the newer locations show that monitors 93-I and 94-I have chloride concentrations that are very low and similar to background (around 1-4 mg/L). Whereas, monitor 95-I has concentrations that were slightly higher than the concentrations at monitor 50-I (around 70-90 mg/L). Overall, the water quality observed continues to indicate an off-site source. This is demonstrated at monitor 94-I, located closer to the landfill, which has significantly lower chloride concentrations than monitors 37-I, 95-I and 50-I. If the source of the chloride at monitor 37-I was landfill related, it would be expected that the monitor closer to the source would also be impacted. Further, monitor 95-I exhibits slightly higher chloride concentrations than at the downgradient monitor 50-I, which may also suggest an upgradient source. In 2005, the public well (P13, MOE#6701123) located upgradient and southwest of locations 37/50 on Eastview Road was added to the semi-annual residential well monitoring program. Chloride concentrations at this well are currently around 80 to 90 mg/L to as high as 105 mg/L in November 2006. These concentrations are on average slightly higher than both monitors 95-I and 50-I. As this public well is considered upgradient of the landfill, this further supports an off-site chloride source.

As stated earlier, the elevated and increasing trend at monitor 37-I is not considered landfill related. In the 2002 assessment, the review of the water quality indicated that it was trending towards a road salt/mineralized signature. The current data collected up to 2009 have confirmed this since the change in water quality has now trended to a road salt signature, this further indicates a non-landfill source. The reason for the continued increase and highly elevated chloride at this location only is unknown. The recent monitors installed in the same hydrogeological stratigraphic interval (94-I and 95-I) are found to have significantly lower chloride concentrations and, in the case of 94-I (closer to the landfill), are at background levels. Therefore, it was concluded that the water quality at 37-I appears to be highly suspect. Based on discussions with MOE reviewer, on this interim report, it has been agreed that both wells, deep and shallow upper bedrock, at location 37 be decommissioned and replaced with a proper monitor construction located just inside of the fence line on the landfill property. In addition, a shallow upper bedrock monitor will be completed at 92-I.

Further to the above discussion, there was an abrupt change in water quality at 37-I in the latter half of 2010. This change was a significant improvement in water quality (i.e., drop in major ions concentration including chloride), which began in the summer. As well, the continued decrease in chloride into the late fall was followed by an increase in alkalinity similar to that observed in the shallow groundwater at 30-I in the adjacent wetland. As discussed earlier, construction activities have been completed in this area related to the housing development. It is possible that this well was compromised due to this activity.

In 2003, one of the additional locations (monitor 91-I) was also exhibiting elevated chloride concentrations. This location is situated upgradient of the landfill along Watson Road and therefore, the chloride is not related to the landfill. On a few of occasions, chloride concentrations observed were higher than those presently found at monitor 37-I at that time. In the 2003 report, it was suggested that the chloride concentrations observed at location 37 and 50 may not be isolated since they were also occurring at another location upgradient of the landfill. Although, these elevated chloride concentrations appeared to decrease during the latter half of 2004, the water quality from spring 2005 showed chloride at a similar concentration to those initially observed. In 2006, a similar increase in chloride concentrations also occurred again in the spring. In 2007, the chloride levels decreased to near background concentrations similar to those observed at other locations. The reason for this decrease is unknown. However, concentrations once again increased into the early part of 2008 and then decreased again towards the end of 2008, a wetter year. Currently, there is only six years worth of information for this location. However, upon review of the water levels, there appeared to be some correlation between chloride concentrations and water level changes. It now appears that precipitation (related to water level changes) may be the reason for the variability in chloride concentrations. It was noted that, not including 2007 (a noticeably drier year), it appeared that there was a corresponding increase in chloride concentrations. During 2009 and 2010, chloride concentrations remained low, similar to those of 2007. Both of these years were also drier, most noticeably 2010. However, further data will be required to assess the chloride concentrations over various climatic events to determine if this may be the overall cause.

In conclusion, there is no indication of leachate impacts in the bedrock groundwater in the area of the landfill based on chloride alone, although elevated and increasing chloride concentrations in some bedrock monitors will continue to be assessed in the future. As well, the more formal assessment completed as part of the interim report continues to suggest that the increasing chloride at 37-I is not landfill related and most likely from an upgradient source. The chloride at 37-I is suspect due to the concentrations observed. As well, recent water quality results may indicate that this well has been compromised possibly due to the housing development construction activities. As state earlier, this location is to be replaced as recommended in the interim letter and accepted by the MOE.

It should be noted that during the assessment of the bedrock groundwater quality, all leachate indicator parameters are used to determine if there are potential landfill impacts occurring. The evaluation of both critical leachate indicator parameters chloride and boron is completed as chloride is very mobile and found at high levels in the landfill leachate and boron, while less mobile than chloride, is only found in the landfill leachate. Due to the fact that chloride can also come from other sources, if it is found to be increasing it would only act as an early warning that a change is occurring that may be related to the landfill or some other source. However, should boron begin to increase on its own or with chloride, it is a more reliable indication that landfill impacts are occurring. Therefore, based on the above assessment of the critical leachate parameters boron and chloride, along with a full analysis of all leachate indicator parameters, there is no indication of leachate impacts in the bedrock groundwater.

In conclusion, the bedrock groundwater quality is similar to previous years.

No leachate effects are observed in the bedrock groundwater, nor would it be expected based on the very slow rate of groundwater flow downwards through the overlying tills.

Since leachate has not been detected in the bedrock, there can be no exceedance of Reasonable Use due to landfill impacts. However, to further confirm this, groundwater quality at the bedrock locations downgradient of the site have been compared to the B7 Guideline Limits (Table C8, Appendix C). As expected, there were no parameters that exceeded the B7 limit in the bedrock from the landfill. The only exception is at monitor 17-I, where iron exceeds the B7 limit. This is considered to be natural and not landfill related for two reasons:

a) the upgradient monitors, closer to the landfill, had lower iron concentrations; and
b) the actual concentrations observed at monitors 17-I are within the range observed in the background monitors.

### 4.5.2 Predicted Exceedances of Reasonable Use

The leachate in the waste, or in the outwash beneath the waste, can move very slowly downward through the till and, eventually, into the bedrock aquifer. Although the groundwater flow in the till is very slow (a few centimetres per year) and leachate will require a long time to reach the bedrock (several hundreds of years), it is still necessary to demonstrate that the contaminant concentrations in the bedrock will remain within the limits dictated in Guideline B-7, the Reasonable Use Guideline (RUG).

Two methods of predicting impacts on groundwater quality are used at the site: the leachate hydraulic target elevations, and monitoring of the water quality in the till above the bedrock. Each is discussed below.

#### *4.5.2.1 Target Elevations*

At the Eastview Road Landfill Site, the RUG predictions for the bedrock aquifer have been made using a computer model called POLLUTE. A series of modelling runs has been made to back-calculate the leachate water level elevations that need to be maintained beneath the landfill, through operation of the PLCCS, to ensure that the RUG is ultimately met in the bedrock (Gartner Lee, 1993c). These are called the target elevations. Leachate water level

elevations in the outwash beneath the waste are measured monthly and compared to target elevations. Section 3.6.2 in this report provides a detailed analysis of the target elevations. In previous years, most areas within the landfill met their target elevations and, therefore, RUG will be met in the bedrock beneath these areas.

A few small, localized areas of the landfill have not met their target elevations over the past few years, either occasionally or consistently (Section 3.6.2), specifically: monitor 51-II, and monitors 62 through 67. Monitor 59 technically does not meet its target elevation as well, but field investigations in 1995 determined that its water level was anomalous compared to monitors at surrounding locations 62 through 67, which are used in the assessment (see the 1997 revised modelling report for more details). Monitoring has, however, demonstrated that the impacts in the outwash below the waste are significantly lower than were assumed in the original POLLUTE modelling, to the extent that RUG can be met in the bedrock despite not meeting target elevations at some locations. Based on recommendations made in the 1995 Annual Report[10], further POLLUTE modelling was conducted in late 1996 and early 1997 with the more up-to-date data to confirm that RUG will be met (Re-Modelling of Leachate Migration in the Tills – Eastview Road Landfill, GLL 96-362 dated May 1997). A brief discussion of the findings of this modelling exercise is provided below for the reader's benefit.

The original modelling incorporated conservative contaminant concentrations for boron and chloride with the smaller database available in 1992. These concentrations were 20 and 45 mg/L for boron and 1,550 mg/L for chloride. However, the addition of several landfill monitoring locations (15) in both the waste and the outwash beneath the waste that had been sampled over three to five years, up to 1996, showed that the leachate quality concentrations were significantly lower than the original contaminant concentrations employed. This is strongly demonstrated in the groundwater quality in the outwash beneath the waste. Monitoring of the outwash beneath the waste has shown that on average boron was about 3 mg/L and chloride was about 350 mg/L since 1994. However, locally some monitors had shown boron and chloride highs of 14.7 mg/L and 960 mg/L, respectively.

To better determine if the localized areas that did not meet, or periodically did not meet, their target elevations would contribute to RUG exceedance at the bedrock, the POLLUTE modelling was revisited with the more up-to-date data, at that time. To provide conservatism in the model, a concentration for boron of 8 mg/L was used. This concentration was used due to the fluctuations observed at certain locations as stated above. As well, the groundwater elevations used in the model were based on the higher than normal levels observed during 1996 in the outwash below the waste.

The POLLUTE modelling was revisited in the northeast area of the landfill (locations 62 through 67) as well as at location 55 and at location 51. Each location was modelled using the original concentration of 20 mg/L, the conservative concentration of 8 mg/L and the actual average concentration from 1995. The results of the study are outlined in the report "Re-Modelling of Leachate Migration in the Tills - Eastview Road Landfill" (GLL 96-362 dated May 1997). The study concluded that there would be no exceedance of the Reasonable Use Guideline concentrations in the bedrock below locations 51, 55 and the northeast area of the landfill, even though target elevations were not attained. Below is a brief discussion on the monitors that once again did not meet their target elevations, with reference to the revised modelling results (Gartner Lee, 1997), to determine whether or not the failure to meet the target elevations could result in a future exceedance of RUG in the bedrock aquifer.

*Location 51*

Monitor 51-II did not meet its target elevations during 2010 as water levels were slightly higher. The boron concentrations in the outwash below the landfill in monitor 51-II were slightly lower, averaging 5.9 mg/L in 2010, compared to 6.27 mg/L (1995) used in the revised modelling assessment in 1997, and the 20 mg/L that was used to set the original target elevation. The average downward gradient in 2010 at this monitor was about 0.16 m/m, which translate into a downward velocity of about 3.09 cm/a.

*10. 1995 Annual Report - Section 6.2.3.3, Page 110.*

Given the fact that the water levels are slightly above the target elevation, and the boron concentration is slightly lower than in 1995, there is still little overall concern regarding RUG at this location. (Note that the revised 1997 modelling showed that all scenarios, including boron concentrations as high as 20 mg/L still resulted in RUG compliance.) As this is the case, a further assessment with the POLLUTE model is not warranted at this time.

*Location 63*

Since 1996, the average concentration of boron in the outwash at this location was well below the Reasonable Use limit of 1.225 mg/L. Therefore, the B7 limit would also be met in the bedrock below this location regardless of whether or not the target elevation is met. Between 1998 and 2006, samples could not be obtained from this monitor, due to very low water levels. This shows that the leachate had been substantially drawn down in this area, which shows the effectiveness of the PLCCS. As well, the boron concentration would be expected to be similar to historical concentrations, which were very low and decreasing since the monitor was installed in 1995. Although this has been the case, with the slight increase in water levels since the spring of 2007, samples were once again obtained from this location in 2007, 2008 and 2009. No samples were collected in 2010 due to insufficient well volume. It should be noted that the boron concentrations that were observed were similar to those observed pre 1998. Although samples were not collected in 2010, it would not be expected that any significant change in the boron concentration has occurred. As this is the case, it is expected that the RUG would still be met at this location.

*Location 65*

Similar to Location 63 above, the average concentration of boron in the outwash at this location continues to be well below the Reasonable Use limit of 1.225 mg/L in 2010 at 0.58 mg/L. Therefore, the RUG will also be met in the bedrock below this location regardless of whether or not the target elevation is met.

*Location 66-I*

As with Locations 63 and 65 above, the average concentration of boron in the outwash at this location has been well below the Reasonable Use limit of 1.225 mg/L since 1996. Therefore, the RUG would also be met in the bedrock below this location regardless of whether or not the target elevation is met. As with monitor 63-I, samples have not been collected since late 1998 due to very low water levels. However, it was still expected that this location still meets the RUG due to the very low boron concentrations observed since it was installed in 1995 (last boron concentration in Sept 1998 was 0.17 mg/L). This monitor was replaced in April 2007 and is now designated 66-IR. One sample was obtained from this location in June 2007 before it had insufficient volume to sample. The boron concentration observed was 0.55 mg/L, which confirmed low levels exist and that the boron concentrations are well below the Reasonable Use limit. Although no samples could be collected in 2008, one sample was collected in November 2009. The boron concentration from this sample was 0.27 mg/L which is well below the RUP. Two samples were collected in 2010 at 66-IR with an average boron concentration of 0.43 mg/L. Therefore, the RUP would be met regardless of whether the target elevation is met.

*Location 67*

Based on the initial boron concentration of 45.35 mg/L, the revised modelling in 1997 indicated that this location could eventually (in about 300 years) exceed the B7 limit in the bedrock. However, it was suspected that this initial boron concentration was not representative and there were already trends at that time suggesting that it would quickly decrease to a point below about 14 mg/L where B7 limit would be achieved. In fact, that is what has happened. By 2000, the measured boron concentration at this location was 2.67 mg/L. As with locations 63 and 66, this location had been essentially dry since 2001 (insufficient volume for sampling). During this period, it was reasonable to assume that there would still be similar boron concentrations in this area, and therefore, the RUG will be met. As with 63-I, the slight increase in water levels at location 67-I allowed sampling to resume in 2007. The

average concentration of boron in 2010 was 1.5 mg/L, which is lower than those observed before it went dry. As well, this average concentration is also well below the 14 mg/L that is the concentration level where B7 would be achieved.

Notwithstanding the above assessment, it is important to recognize that while the location-by-location assessment of target elevations is a useful guide to the effectiveness of the PLCCS in different parts of the landfill site, Reasonable Use compliance in the bedrock aquifer is applied at the site boundary, so there is a mixing, or averaging, effect that will occur in the groundwater flow system. The revised modelling assessment in 1997 recognized this and modelled the overall effects at the site under long-term average conditions, concluding that the "overall average boron concentrations in the bedrock aquifer will remain well within Reasonable Use Guidelines" (p.9).

Based on the assessment of target elevations at individual locations, and the overall assessment for the site, future Reasonable Use exceedances in the bedrock aquifer are not predicted.

#### *4.5.2.2 Lower Till Groundwater Quality*

Sampling and testing the water quality in the lower till provides a predictive "early warning" of any leachate movement towards the bedrock aquifer. Because of the very slow rate of downward flow in the tills beneath the landfill, as noted above, no leachate should be detected in the lower till in 2010 or for many more years in the future.

A summary of groundwater quality in the lower till during 2010 is provided in Table 8 and is similar to previous years[11]. Spatially, the water quality is slightly variable but at each location it is stable (i.e., no apparent trends).

**Table 8. Summary of Lower Till Groundwater Quality During 2010**

| Parameters | | Lower Till Groundwater Quality | | | |
|---|---|---|---|---|---|
| | | Avg. | Min | Max. | Samples |
| **General** | pH | 8.205 | 8.13 | 8.29 | 6 |
| | Conductivity (μS) | 316 | 289 | 382 | 6 |
| | Alkalinity (mg/L) | 158 | 138 | 195 | 6 |
| | Hardness (mg/L) | 90 | 41 | 190 | 6 |
| **Critical Indicators** | Chloride (mg/L) | <2 | <1 | 4 | 6 |
| | Boron (mg/L) | 0.14 | 0.052 | 0.36 | 6 |
| | Phenol (μg/L) | <1 | <1 | <1 | 6 |
| | Iodide | <0.1 | <0.1 | <0.1 | 6 |
| **Leachate Indicators** | Calcium (mg/L) | 18 | 12 | 30 | 6 |
| | Sodium (mg/L) | 40 | 18 | 56 | 6 |
| | Magnesium (mg/L) | 10 | 2.6 | 27 | 6 |
| | Potassium (mg/L) | 0.75 | 0.55 | 0.97 | 6 |
| | Iron (mg/L) | <0.14 | <0.1 | 0.32 | 6 |
| | Manganese (mg/L) | <0.018 | <0.002 | 0.032 | 6 |
| | Ammonia (mg/L) | <0.18 | <0.05 | 0.3 | 6 |
| **Other Constituents** | Sulphate (mg/L) | 6.5 | 1 | 15 | 6 |
| | Bromide | <1 | <1 | <1 | 6 |
| | Nitrate (mg/L) | <0.12 | <0.1 | 0.2 | 6 |
| | Nitrite (mg/L) | <0.01 | <0.01 | <0.01 | 6 |

To assess long term groundwater quality in the lower till as it relates to possible downward groundwater flow, vertical profiles for till monitors and associated bedrock monitors were prepared for selected locations. The groundwater parameters selected for these trends were the critical leachate indicators boron and chloride. The locations were selected to provide background (4, 13 and 19) and locations where there is the possibility of downward migration of

*11. 1995 Annual Report- Section 6.2.3.4, pages 112-113, Table 22*

contamination (11, 15, 16, 53 and 60). The profiles are provided in Appendix C; Figures C7 to C10 are for chloride and Figures C11 to C14 are for boron. Further, as requested by the PLC, Figures C15 to C18 illustrate the remaining critical leachate indicator parameter phenol.

Historical trend evaluation has been discussed previously[12]. Chloride concentrations at most locations during 2010 are stable and similar to previous years. There is no indication of any leachate impacts in the lower till. However, there are two locations (4 and 53) that warrant further discussion as provided below. These locations were not included in the above statistics.

The first is location 4. In 1999, chloride and sodium were slightly higher compared to historical trends in monitor 4-II. The assessment of this increase, at the time, did not show it to be related to leachate impacts. These slightly higher concentrations generally persisted to about 2002 with some apparent seasonal decreases. In 2003, concentrations increased to their highest levels (chloride 82.1 mg/L), at that time, in the spring but decreased again in the fall. During 2004, these concentrations increased again and by August were at their highest levels ever recorded (chloride 108 mg/L). Further evaluation of the water quality in 2004 indicates a shift to dilute road salt effects. In 2005, chloride concentrations began to decrease again, however, over the long term the overall trend is showing an increase. It is known that the shallow monitor is highly impacted by road salt (4-IIIR). Therefore, based on the changes since 1999 and more recently in 2004, it was concluded that there has been slow leakage through the seal at this monitor. A similar situation was also observed in the early 1990s in the original bedrock monitor (4-I), which was ultimately replaced in 1993. Monitor 4-II, in the lower till, was replaced in April 2007. Water quality results collected for the three remaining monitoring events have shown a significant change in the chloride concentration, which decreased to about 50 to 60 mg/L and persisted into 2008. In 2010, a slight increase was noted. Although not as high as those observed before the replacement, continued assessment of this location is warranted.

The second location is 53/C2. In late 2003, it was noted that chloride concentrations seemed to increase slightly at 53-II. At the time it was not considered a concern as it was within the historical range for this location. However during 2004, chloride, and to a lesser degree sodium, calcium, magnesium and sulphate, increased significantly. In fact, the chloride concentration in June of 2004 was similar to that of C2-I in the overlying outwash. It was noted during this period that the water levels also increased by about 1.5 m. It has therefore been concluded, as discussed earlier, that the seal in this monitor was compromised. This location was also replaced in April 2007. Review of the chloride concentration from the three subsequent monitoring events indicates that the levels decreased over those observed in 2006 (66 mg/L in June 2006 and 25 mg/L in November 2007), although they were still above historical concentrations. In 2008, chloride levels further decreased to around 20 mg/L. During 2010, levels remained between 20 and 30 mg/L. It is expected that some residual chloride is still present after the replacement of this monitor and that this should clear over time.

These trends do not indicate any leachate impacts in the lower till.

In conclusion, the 2010 chemistry and the vertical profile trends do not indicate any presence of leachate impacts in the lower till. Therefore, it is not predicted that Reasonable Use will be exceeded in the bedrock groundwater.

## 4.6 Private Water Well Quality

Six private wells (P5, P6, P7, P8, P12 and P13) and one landfill well (P10), all drawing their water from the shallow bedrock, although not required by the C of A, have been routinely sampled historical. No samples were collected in 2010. Historical water quality results showed that there were no adverse effects from the landfill on the private wells.

Historical water quality results are provided in Appendix D.

*12. 1995 Annual Report - Section 6.2.3.4, page 114*

## 4.7 Effects of Municipal Water Supply Pumping

A condition added to the C of A in 1999, Condition 17.10, requires the City to comment on the operation of the landfill with respect to the municipal water supply pumping in the Northeast Quadrant. Below is an assessment of the operation of the landfill and the effects of the water supply pumping, following the format developed through consultation with the MOE.

a) Review the water level measurements taken in the bedrock beneath the landfill site, and compare these to the historical database, to confirm that the influence of the City's water supply pumping system is stable beneath the landfill.

   Long term water level data trend do not indicate any potential influence from the water supply system.

b) Review of measured bedrock groundwater elevations taken beneath the landfill generally does not indicate any change in levels, excluding seasonal variation and climate, when compared to historical data (Section 4.2). The 2010 water levels were found to be within the seasonal variability observed at the site.

c) Review the municipal water supply pumping records for the northeastern quadrant of the City to confirm that the water takings are within the historical ranges over the period of record for the monitoring program at Eastview Road Landfill.

   The pumping records were reviewed by City of Guelph's Water Works personnel and found to be within historical ranges (Appendix G).

d) Review the results of groundwater sampling and testing from the bedrock beneath the landfill site to confirm that the Reasonable Use Guidelines for groundwater quality are being met at the site boundaries and, therefore, there is no unacceptable impact from Eastview Road Landfill leachate on the City's municipal water supply wells.

   Reasonable Use continues to be met at the site boundaries (Section 4.4 and 4.5). There is no unacceptable impact on the City's municipal water supply wells from Eastview Road Landfill leachate.

e) Review the landfill monitoring results against the predictive analysis of leachate migration from the landfill site towards the bedrock to confirm that the water quality in the bedrock at the landfill site boundaries will continue to meet the Reasonable Use Guidelines, and, therefore, there will be no unacceptable impact from Eastview Road Landfill leachate on the City's municipal water supply wells in the future.

   The landfill monitoring results for both chemistry and water level measurements confirm that the bedrock water quality at the site boundary will continue to meet the Reasonable Use Guidelines (Sections 3.6 and 4.5). Therefore, there will be no unacceptable impact from Eastview Road Landfill leachate on the City's municipal water supply wells in the future.

f) If the results of any of the above determine that the Reasonable Use Guidelines are being exceeded in the bedrock beneath the site, or are predicted to exceed the Reasonable Use Guidelines in the future, because of the migration of leachate from Eastview Road Landfill, thereby creating the potential for impact on water quality in the City's water supply system, then the procedures specified in the Certificate of Approval will be followed, which may lead to the implementation of contingency plans in order to protect the groundwater. If the reason for the exceedance, or predicted exceedance, is related to the operation of the City's water supply system, then modification to the water supply system or its operation will be assessed in conjunction with the remedial or contingency plans.

Currently, there is no predicted exceedance of Reasonable Use in the bedrock aquifer. Nevertheless, given that some lower water level trends had occurred at certain bedrock monitor in late 1990s early 2000s, the City installed two new deep bedrock monitors around the landfill. This will continue to provide further information on the possible or existing effects that the municipal well pumping may be having on the deeper groundwater levels below the landfill.

### 4.8 Need to Implement Contingency Plans

The groundwater analysis discussed previously in this section indicates that there are no leachate effects related to the landfill in the shallow groundwater system (other than residual contamination pre-dating the PLCCS), in the lower till or in the bedrock. Therefore, there is no need to implement any contingency plans.

### 4.9 Adequacy of the Monitoring Program and Recommended Changes

In the 2008 annual report, a discussion to reduce the groundwater and leachate monitoring program was outlined based on the fact that the landfill has been closed since 2003. This reduction was originally recommended in the report entitled “Eastview Road Sanitary Landfill Report Closure Plan”, GLL 21-433, dated June 2003, prepared for The Corporation of the City of Guelph that was approved by the Ministry of the Environment (MOE). This revised monitoring program was agreed upon by the MOE in their technical review of the 2008 Annual Report (Letter dated September 21, 2009 Re: 2008 Closed Eastview Road Landfill Annual Report – Ref. #8405-7TXP2M). A letter dated April 12, 2010, was sent to the MOE informing them that the City will now be implementing this revised monitoring program.

This program was initiated midyear after sending the letter to inform the MOE that they were going ahead with the recommended reduction. However, in late 2010 in discussions with the MOE at the District office it was found out that this reduction needed to go through the approvals branch as well. As this was the case, the City re-instated the current monitoring programs and has forwarded an amendment to the Approvals Branch for this reduction.

## 5. Surface Water Monitoring

The surface water monitoring program in and around the Eastview Road Landfill site consists of nine (9) monitoring stations. The purpose of this program is to establish the surface water quality entering the site, leaving the site, and downstream from the site. Background water quality is also determined by monitoring two stations in adjacent watersheds.

Comparisons are made between the nine stations to determine if the landfill is impacting surface water quality or if the quality is changing over time. The laboratory results are compared against water quality targets established by Gartner Lee Limited (1993), Provincial Water Quality Objectives (PWQO) (MOE 1999), and data collected at the stations since 1992. Surface water quality results for at least the past six years are provided in Appendix C. As requested by the MOE, the laboratory was contacted to provide a lower detection limit for nickel so that it could be compared to the PWQO. Water quality results starting is 2011 will now reflect this lower detection limit.

### 5.1 Objectives

The objectives of the surface water monitoring program are (Gartner Lee Limited, 1993):

a) to assess whether the landfill is in compliance with surface water quality policies of the MOE;
b) to evaluate the effectiveness of the perimeter leachate containment and collection system in preventing leachate impacts in Hadati Creek;

c) to evaluate the effectiveness of sediment control measures in reducing total suspended solids concentrations to the wetland in the southeast part of the site; and

d) to provide a mechanism which will trigger the implementation of a contingency plan in the event that the landfill is not in compliance with the surface water policies of the MOE.

## 5.2 Sampling Methodology and Site Descriptions

Nine monitoring stations (Figure 19) are routinely sampled; however, parameter analyses vary between the stations. A typical sampling event consists of measuring field parameters (pH, conductivity, dissolved oxygen, temperature and stream width and depth) as well as collecting water samples and delivering them to a certified laboratory on the same day for analysis for the designated parameters. In 2010 City of Guelph staff collected the water samples and Maxxam Analytics performed the water quality analyses.

The surface water monitoring program conducted in 2010 was the reduced program recommended in the 2009 Annual Report. The City sent a follow-up letter to the MOE District office after the submission of annual report, informing them that they were going to implement the recommended monitoring program as the Technical Reviewers had agreed to it. In late 2010, as mentioned earlier, discussions with the MOE District office indicated that the recommended program would need to go though the Approvals Branch. As this was the case, an amendment has been forwarded to the Approvals Branch for this recommended monitoring program. Until this amendment has been granted, surface water monitoring will again follow that outlined in the C of A.

### 5.2.1 Background water Quality Stations

Stations SW15, SW7 and SW5 represent background water quality from different watersheds in the vicinity of the landfill.

SW15 is located in an adjacent watershed on the southeast side of Speedvale Avenue, northeast of landfill property boundary at Watson Road.

SW7, also located in an adjacent watershed, is on the northeast side of Watson Road approximately halfway between Eastview Road and Grange Road. Due to the housing construction activities along Watson it is most likely this station will become more representative of background rural/urban use.

SW5 is located at the upstream end of the ditch on the southwest side of the landfill property. This is the only surface water flow path entering the site under normal flow conditions and represents background water quality, upstream of the landfill.

### 5.2.2 On-Site Water Quality Stations

SW1 is located along the southwest ditch at the storm sewer inlet near the landfill entrance off Eastview Road. Water quality at this location indicates the contributions (if any) from the landfill to the southwest ditch by comparison with results from SW5.

SW16 is located at the storm sewer outlet on the southeast side of Eastview Road near the landfill entrance, and indicates the contributions (if any) of drainage from the southwest ditch to Hadati Creek. This site is located downstream of the confluence with the Eastview Road ditch (SW2) and the southwest ditch (SW1).

SW24 is located within the landfill site and receives runoff during wet weather events. A series of two rock check dams were installed in 1997 to allow suspended sediments to settle out of the runoff prior to discharging from the site. No samples were collected in 2010, the rock check dam was dry.

SW4 is located in a drainage ditch at the outlet of the wetland, downstream of SW24 and on the northwest side of Eastview Road.

### 5.2.3 Downstream Surface Water Stations

SW3A is downstream of the landfill in Hadati Creek, on the southeast side of Eastview Road. The results from this station are compared against the established Provincial Water Quality Objectives (PWQOs).

## 5.3 2010 Sampling Program

Total precipitation during 2010 was 730.5 mm, which is lower than the long-term average annual precipitation of 881 mm. January, February, August, November and December all had significantly less precipitation than normal with June, July and September being the only months with more than normal precipitation. The mean monthly temperature was 6.3 C, which is similar to the long-term average mean temperature of 6.7°C.

Evapotranspiration in 2010 was calculated to be 553 mm, which is similar to the long-term average annual evapotranspiration of 566 mm. The 2010 water surplus (the amount of precipitation remaining after evapotranspiration is subtracted) available for runoff and infiltration was 178 mm, which is significantly less when compared with the long-term average of 316 mm. The range of annual water surplus is estimated to be from 207 mm to 480 mm per year, thus the overall surplus water for 2010 was slightly lower than the long-term range. In summary, 2010 would be considered significantly drier than a normal year with a wetter than normal summer.

The 2010 sampling program followed the protocol described by AECOM (2009). This included sampling of all monitoring locations, four times a year (when sufficient flow occurs) starting with the Spring Freshet. No samples were collected at the rock check dam (SW24, SW24a and SW24m), as there were insufficient water or dry conditions. These sampling events are outlined in Table 9.

**Table 9. 2010 Surface Water Sampling Events**

| Date Sampled | Sampling Event | Comments |
|---|---|---|
| **March 25, 2010** | Spring Freshet | All monitoring locations were sampled |
| **August 20, 2010** | Summer Dry | All monitoring locations were sampled |
| **October 4, 2010** | Fall Rain | All monitoring locations were sampled |
| **November 29, 2010** | Fall Dry | All monitoring locations were sampled |

## 5.4 2010 Sampling Data

Surface water quality results for selected stations and parameters are presented in Table 10. The full surface water data set and field measurements are included in Appendix C (Tables C3 and C4).

*Critical Leachate Indicators*

Gartner Lee Limited (1993) defined Initial Action Levels (IALs) for five leachate indicator parameters (Table 11). If the concentration of one or more of these parameters exceeds the IAL at SW3A (Hadati Creek), then a series of actions is triggered. These actions include confirmation of the sample concentration within 30 days, followed by additional testing and contingency plan implementation, if necessary. Details of this process are provided in Gartner Lee Limited (1993).

# Table 10. Summary of Surface Water Quality, 2010

AECOM

| Parameters | | IAL | PWQO | SW5 Upstream of Landfill | | | | SW1 Upstream of Storm Culvert | | | | SW16 Storm Culvert Discharge | | | | SW-3A Downstream of Landfill (Hadati Creek) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *Min* | *Max* | *Average* | *N* | *Min* | *Max* | *Average* | *N* | *Min* | *Max* | *Average* | *N* | *Min* | *Max* | *Average* | *N* |
| **General** | Field pH | - | 6.5-8.5 | 7.45 | 7 | 8.4 | 4 | 7.25 | 6.6 | 7.8 | 4 | 7.43 | 6.9 | 7.9 | 4 | 7.65 | 7 | 8.2 | 4 |
| | Alkalinity | | | 281 | 213 | 335 | 4 | 259 | 194 | 292 | 4 | 264 | 203 | 292 | 4 | 265 | 210 | 291 | 4 |
| | Hardness | | | 323 | 240 | 360 | 4 | 325 | 270 | 370 | 4 | 330 | 270 | 380 | 4 | 325 | 280 | 360 | 4 |
| **Initial Action Level Parameters** | Un-ionized Ammonia | 0.04 | 0.02 | 0.0013 | 0.0001 | 0.0046 | 4 | 0.0004 | 0.0000 | 0.0013 | 4 | 0.0021 | 0.0000 | 0.0078 | 4 | 0.0011 | 0.0001 | 0.0034 | 4 |
| | Conductivity | 2410 | | 976 | 603 | 1510 | 4 | 882 | 793 | 932 | 4 | 907 | 814 | 953 | 4 | 917 | 861 | 989 | 4 |
| | Chromium | 0.2 | 0.1 | <0.01 | <0.01 | <0.01 | 4 | <0.01 | <0.01 | <0.01 | 4 | <0.01 | <0.01 | <0.01 | 4 | <0.01 | <0.01 | <0.01 | 4 |
| | Nickel | 0.05 | 0.025 | <0.05 | <0.05 | <0.05 | 4 | <0.05 | <0.05 | <0.05 | 4 | <0.05 | <0.05 | <0.05 | 4 | <0.05 | <0.05 | <0.05 | 4 |
| | Phenols | 0.002 | 0.001 | <0.001 | <0.001 | <0.001 | 4 | <0.001 | <0.001 | <0.001 | 4 | <0.001 | <0.001 | <0.001 | 4 | <0.001 | <0.001 | <0.001 | 4 |
| | TSS | | | 14 | 6 | 26 | 4 | 13 | 4 | 23 | 4 | 27 | 4 | 85 | 4 | 34 | 2 | 120 | 4 |
| **Additional Parameters** | Total Ammonia | - | | <0.07 | <0.05 | 0.11 | 4 | 0.05 | 0.05 | 0.05 | 4 | <0.10 | <0.05 | 0.26 | 4 | <0.05 | <0.05 | 0.06 | 4 |
| | Boron | | 0.2 | <0.03 | <0.02 | 0.03 | 4 | <0.023 | <0.02 | 0.03 | 4 | <0.03 | <0.02 | 0.05 | 4 | <0.03 | <0.02 | 0.05 | 4 |
| | Calcium | | | 101 | 84 | 120 | 4 | 95 | 86 | 100 | 4 | 98 | 85 | 110 | 4 | 96 | 88 | 100 | 4 |
| | Chloride | | | 119 | 38 | 250 | 4 | 105 | 100 | 110 | 4 | 113 | 110 | 120 | 4 | 115 | 100 | 130 | 4 |
| | Iron | | 0.3 | 1.91 | 0.51 | 4.6 | 4 | 0.41 | 0.25 | 0.6 | 4 | 2.38 | 0.31 | 8.3 | 4 | 0.71 | 0.38 | 1.4 | 4 |
| | Magnesium | | | 24 | 19 | 29 | 4 | 26 | 21 | 30 | 4 | 26 | 21 | 30 | 4 | 26 | 21 | 29 | 4 |
| | Manganese | | | 0.22 | 0.04 | 0.67 | 4 | 0.09 | 0.04 | 0.15 | 4 | 0.14 | 0.04 | 0.33 | 4 | 0.10 | 0.07 | 0.12 | 4 |
| | Potassium | | | 3 | 2 | 4 | 4 | <1 | <1 | 1 | 4 | <1 | <1 | 1 | 4 | <1.5 | <1 | 2 | 4 |
| | Sodium | | | 78 | 20 | 170 | 4 | 58 | 49 | 65 | 4 | 61 | 58 | 63 | 4 | 65 | 54 | 74 | 4 |
| | Zinc | | 0.02 | 0.05 | 0.02 | 0.07 | 4 | 0.13 | 0.07 | 0.2 | 4 | 0.13 | 0.07 | 0.19 | 4 | 0.07 | 0.06 | 0.09 | 4 |

*Notes: all units are mg/L except pH (unitless), temperature (°C) and conductivity (µS/cm)*
*IAL: Initial Action Level (GLL, 1993)*
*PWQO: Provincial Water Quality Objective (MOE, 1999)*
*Bolded values represent concentrations above PWQOs, Bold and Italized values represent concentrations above the IALs and PWQOs*

During all sampling events, un-ionized ammonia, phenol, chromium and nickel concentrations were below their laboratory analytical detection limits (of 0.001 mg/L, 0.01 mg/L and 0.05 mg/L, respectively) and their initial action level for each parameter at SW3A.

Phenol concentrations were low, and were below the PWQO (<0.001 mg/L) at SW3A and all other on site and downstream stations. The highest phenol concentration of 0.001 mg/L (at detection limit) was measured at SW7, a background water quality station. Historically, PWQO exceedances of phenol were detected at SW7 (2008, 2007, and 2006) demonstrating that a source independent of the Closed Eastview Road Landfill has contributed to the increased concentrations measured.

Un-ionized ammonia concentrations were calculated using field pH and temperature. At SW3A, downstream of the landfill, the un-ionized ammonia concentrations were low (0.0001 – 0.0011 mg/L), and well below the IAL of 0.04 mg/L. Concentrations at all stations were low, during all sampling events and well below the PWQO.

At SW3A, the conductivity ranged from 861 – 985 μS/cm, and were well below the IAL value of 2,453 μS/cm during all sampling events. At SW1 and SW16 concentrations were within historical background values and ranged from 801 to 1020 and 401 and 1030 μS/cm, respectively. The high measurement of 2090 μS/cm was at SW5 (upstream of landfill) and is consistent with the historical average for this location (1,794 μS/cm). SW5 is located immediately downstream of Speedvale Avenue. This conductivity value was measured during a fall rain sampling event and therefore could be a result of road runoff. Since SW5 is located upstream of the landfill, it is not susceptible to landfill related impacts.

**Table 11. Initial Action Levels for Leachate Indicator Parameters**

| Parameter | Initial Action Level (IAL) |
|---|---|
| **Un-ionized Ammonia ($NH_3$)** | 0.04 mg/L |
| **Chromium (Cr)** | 0.2 mg/L |
| **Nickel (Ni)** | 0.050 mg/L |
| **Phenols** | 0.002 mg/L |
| **Conductivity** | 2410 μS/cm (2 × geometric mean of laboratory background concentrations) |

Chloride concentrations parallel conductivity trends with higher chloride concentrations at stations adjacent/downstream of roads than those at stations isolated/upstream of roads. A statistical summary of chloride concentrations measured at the surface water stations since 1993 is provided in Table 12.

**Table 12. Statistical Summary of Chloride Concentrations in Surface Waters Since 1993**

| Site | Location Description | Minimum (mg/L) | Maximum (mg/L) | Average (mg/L) | Standard Deviation (mg/L) | Number of Observations |
|---|---|---|---|---|---|---|
| **SW-15** | Reference | 21 | 180 | 41 | 21 | 56 |
| **SW-7** | Reference | 22 | 384 | 106 | 63 | 45 |
| **SW-5** | Upstream | 7.3 | 8330 | 407 | 1010 | 68 |
| **SW-1** | On-site | 33.3 | 154 | 96 | 24 | 72 |
| **SW-2** | On-site | 31 | 664 | 163 | 120 | 59 |
| **SW-16** | Downstream | 38.4 | 509 | 131 | 70 | 70 |
| **SW-3A** | Downstream | 44 | 356 | 129 | 47 | 70 |

### 5.4.1 Additional Parameters

Additional parameters are measured at the surface water stations in and around the site, and a summary of 2010 analytical results are shown in Table 10. Detailed results for all measured surface water parameters are available in Appendix C (Tables C3 and C4).

No IALs have been established for these additional parameters as natural sources exist around the landfill site, or aquatic toxicity information is lacking. However, comparisons of these parameters at different stations upstream and downstream of the landfill site can be useful to indicate if the landfill is contributing any additional concentrations to Hadati Creek. Furthermore, measured concentrations can be compared to the Provincial Water Quality Objectives (PWQOs), which have been established by the Ontario Ministry of the Environment (1999) as guidelines and objectives for a variety of chemical and bacteriological parameters in surface water.

Similar to previous years, zinc concentrations exceeded its PWQO (0.02 mg/L) at both background and on- site stations. Zinc concentrations were above the PWQO in the southwestern drainage ditch (SW1 all events), downstream in Hadati Creek (SW3A and SW16 all events), the Eastview ditch (SW2 on three events) and the discharge to the site (SW5 on three event). This is consistent with results found at the reference site SW7, where zinc was above the PWQO during all of the events. High concentrations in the reference (SW7) and upstream sites (SW5) suggest that elevated concentrations of zinc occur naturally in this area. Zinc is not an indicator of leachate at this site. The concentration of zinc was typically lower in the landfill leachate than those found in the surface water samples. Possible sources of this metal include the surrounding soils, natural groundwater discharge, automobiles on the adjacent roads, metals in culverts, debris near the watercourse, and disturbed watercourse sediment in the samples.

Comparison of zinc concentrations measured at SW1 and SW16 found that, generally, concentrations measured downstream are equal to or lower than those measured upstream (Figure 20).

Similar to zinc, iron exceeded its PWQO (0.30 mg/L) at every sampling site in 2010. Iron concentrations were above the PWQO in the southwestern drainage ditch (SW1 on three events), downstream in Hadati Creek (SW3A and SW16 on all events), the Eastview ditch (SW2 on all events) and the discharge to the site (SW5 on all events). As well, iron was above the PWQO at the background station reference site (SW7 all events) and background adjacent watershed (SW15 on one event). Concentrations of iron at the reference sites suggest that elevated concentrations of iron occur naturally in this area. Possible sources of iron include the surrounding soils, automobiles on the adjacent roads, metals in culverts, and disturbed watercourse sediment in the samples.

At all stations, during all sampling events, chromium and boron were below their PWQO (0.1 mg/L and 0.2 mg/L, respectively). As well, nickel was not detected at all stations. It is expected that nickel would be below its PWQO of 0.025 mg/L, however a direct comparison cannot be made as the method detection limit was 0.05 mg/L. As this is the case, and as recommended by the MOE, a lowering of the method detection limit was requested. This was initiated in 2011.

In summary, the 2010 data for the Eastview Road Landfill site showed similar trends to those observed in recent years. None of the parameters exceeded their respective IAL values at SW3A. PWQO exceedances of zinc and iron were observed, however these parameters are not indicators of leachate. Since the installation of the leachate collection system in 1991, impacted groundwater has not been contributing to surface water flows at the site, resulting in improved water quality than prior to the installation of the system.

### 5.4.2 Suspended Sediments

Surface water sediment control is achieved using two crescent-shaped rock check dams lined with filter cloth, constructed upstream of station SW24 on the existing channel. During rain events, the check dams promote ponding of water between them, thus decreasing the flow velocity and allowing suspended sediment to settle.

The check dams were either dry and or had insufficient surface water to be sampled in 2010.

### 5.4.3 Summary

The key highlights of the 2010 surface water sampling program include:

a) no parameters at SW3A exceeded their respective IAL during the 2010 monitoring period;
b) the 2010 surface water chemistry results indicate that the landfill had a negligible effect on downstream water quality. This was also observed in recent years, since the leachate collector system was installed in 1991; and
c) repairs made to the buried surface water storm sewer in 1994 continue to be successful in limiting leachate infiltration into the storm sewer. Boron concentrations, which had been elevated in surface water prior to the installation of the leachate collection system, were similar at SW1 and SW16 with all values below the PWQO of 0.2 mg/L.

## 5.5 Adequacy of the Monitoring Program and Recommended Changes

In the 2008 annual report, a discussion to reduce the surface water monitoring program was outlined based on the fact that the landfill has been closed since 2003. This reduction has also been discussed in previous annual reports. This revised monitoring program was agreed upon by the MOE in their technical review of the 2008 Annual Report (Letter dated September 29, 2009 Re: Surface Water Technical Support Comments for Eastview Road Landfill 2008 Annual Report – Ref. #1320-7TXP3S). A letter dated April 12, 2010, was sent to the MOE informing them that the City will now be implementing this revised monitoring.

As mentioned earlier, this program was initiated midyear after sending the letter to inform the MOE that the City was going ahead with the recommended reduction. However, in late 2010 in discussions with the MOE District office the City was informed that this reduction needed to go through the approvals branch as well. As this was the case, the City re-instated the current monitoring programs and has forwarded an amendment to the Approvals Branch for this reduction.

# 6. Landfill Gas Monitoring

This section describes the landfill gas monitoring program undertaken in 2010.

## 6.1 Gas Control System

An active gas control system has been in operation at the site since early 2004.

## 6.2 Landfill Gas Monitoring

The intent of the landfill gas monitoring program is to identify:

a) potential off-site migration of combustible gas; and
b) potential health and safety risks in on-site structures.

### 6.2.1 On-Site Structure Monitoring

The former scale house (now site office) and the maintenance shed contain methane detection systems that are interfaced with ventilation systems to activate exhaust fans when methane levels reach 20% LEL. To date, there has been no alarm triggered in any on-site building.

## 6.3 Combustible Gas Monitoring Program

In 2010, combustible gas concentrations in subsurface soils continued to be measured at the following locations:

a) 15 “BH” series monitors, located in the fill area;
b) 5 “D” series monitors in the buffer zone between the fill area and sheet pile wall;
c) 13 “C” monitors located outside the sheet pile wall adjacent to the fill area;
d) 10 “BH” monitors located in the buffer zone near the property line; and
e) 6 “GP” probes adjacent to on-site buildings in the southwest corner of the site.

### 6.3.1 Monitors Within the Landfill (“BH” series)

Gas concentrations in “BH” probes were measured in March and August 2010 as shown in Table E1 in Appendix E.

The following seven monitors measures methane in the waste: BH51-I, BH52-I, BH59-I, BH62-I, BH64-I, BH65-I and BH67-I. BH51-I and BH52-I measured methane well above the LEL for both events. BH59-I and BH64-I measured methane above the LEL for one event. The remaining monitors measured below LEL for both events.

The following eight monitors are screened in the granular outwash below the waste: BH51-II, BH55-I, BH56-I, BH57-I, BH58-I, BH61-I, BH63-I and BH66-I. BH51-I, BH55-I, BH56-I, BH58-I, BH61-I and BH66-I measured methane concentrations, all were below LEL. The remaining monitors measured no methane.

Since BH series probes are in the waste disposal area, high gas concentrations may be expected and are not of concern.

### 6.3.2 Monitors Adjacent to the PLCCS (C and D Series Monitors)

The “C” and “D” series probes monitor the performance of the PLCCS and are also suitable for gas concentration measurement.

The “D” series monitors are located between the PLCCS and the waste. “C” series monitors are located beyond the PLCCS and sheet pile barrier wall.

*West Side of the Site*

Methane concentrations measured in west side “C” and “D” monitors are shown in Table E2 in Appendix E. West side PLCCS manhole methane concentrations are tabulated in Table E7. All monitoring events in 2010 from west side “C” and “D” monitors showed methane concentrations of 0% except for the August event for monitor D1-I, where a methane concentration of 0.1% was measured. Methane concentrations in MH 5W and MH 7W, adjacent to the probes and part of the west side PLCCS measured 0% methane during the 2010 events except for MH 7W during the August event, which measured 0.4% methane.

Low methane concentrations in “C” series monitors are expected on the west side of the site because both the high water table and the sheet pile wall act as barriers to gas migration. It is also likely that the PLCCS intercepts landfill gas that may not be collected by the gas control system and vents it to the atmosphere.

*South Side of the Site*

Table E3 documents methane concentrations in south side “C” and “D” monitors. Table E6 tabulates south side PLCCS manhole methane concentrations.

Monitor D3-I, adjacent to MH 6S and inside the sheet pile wall, showed gas concentration above LEL during the March monitoring event and below LEL during the August monitoring event. The nearby MH 6S recorded gas concentrations below LEL during both events.

Monitors C5-I, C6-II, C7-I and C8-I, located beyond the sheet pile wall between MH 8S and the South Pump Station, showed no methane during both events. Low methane concentrations in “C” series monitors are expected since the high water table and the sheet pile wall act as barriers to gas migration. The PLCCS also tends to intercept migrating gas and vents it to the atmosphere. MH8S recorded methane levels below LEL during both monitoring events.

Monitor D4-I, adjacent to MH 4S and between the waste and sheet pile wall, measured gas concentrations below LEL during both events. MH 4S showed gas concentrations well above LEL in both March and August.

Monitors C9-II, C10-II and C11-II located beyond the sheet pile wall in the southeast corner of the site, all measured no methane during either event.

Monitor D5-I, located upstream and midway between MH AS and MH BS on the east side of the site, measured gas concentrations below LEL during both events. MH AS and MH BS both contained no methane in March. In August, MH AS measured no methane and MH BS measured 0.1%.

Monitors C12-I, C13-I and C14-I located between the PLCCS and the property boundary, recorded no methane during both events.

The above noted trends continue to indicate that some landfill gas migrates from the waste toward the PLCCS where it is intercepted and vented to the atmosphere.

*Buffer Lands Near the Property Boundary*

Ten “BH” monitors are located in the landfill buffer zone to document gas concentration near the property boundary. Monitoring results, as shown in Table E4 of Appendix E, indicate that landfill gas has not migrated to the property boundary to date.

*Southwest Corner of the Site*

Six “GP” probes monitor for gas migration and soil-gas conditions adjacent to on-site buildings. Table E5 of Appendix E presents methane measurements at the GP series probes.

At GP97-1, near the southwest property boundary, there was no methane recorded in March and methane recorded well below LEL in August. It is therefore concluded that methane migration off-site is not occurring in this area.

At probe GP97-3, north of the Storage Building, gas concentrations in 2010 were measured to be well above the LEL (54.8%) in August. This is an increase from the more recent gas concentrations measured in this probe. However, in 2007 gas concentrations at this probe exceeded LEL. No methane was measured in GP97-3 in March.

At probe GP97-4, northeast of the Administration Building, there were no gas was detected in August but gas concentrations well above the LEL in March.

At probe GP97-5, north of the maintenance shed, there were no gas was detected in 2010.

Probe GP00-06, located in the flowerbed adjacent to the scale house, has recorded methane concentrations above the LEL during all monitoring events since February 2006. Then in 2008, the methane concentrations were seen to be decreasing from previous years going as low as 9.3% in December 2008. In 2009, methane concentrations started to increase to a concentration of 13.9%. In 2010 gas concentrations continued to rise, with both events recording methane well above the LEL (61.8% and 55.9%).

At probe GP00-07 located adjacent to the Main pump station, there were gas concentrations well above the LEL in March and below the LEL in August.

In general, any construction activities undertaken in any on-site areas or buildings where gas may be present, particularly in the areas of GP97-3 and GP 00-07 should be undertaken in accordance with the requirements of the Occupational Health and Safety Act and associated regulations. Gas detection systems should continue to monitor for the presence of gas in the buildings adjacent to these monitors.

## 6.4 Measured or Predicted Off-Site Occurrences of Combustible Gas

There have been no measured or predicted occurrences of methane migrating off-site to date. The monitoring program undertaken in 2011 should continue to assess the potential for off-site gas migration.

## 6.5 Need to Implement Contingency Plans

Given the monitoring data and the physical setting of the site, there is a low likelihood of gas migration off-site. Therefore there is no need to implement a control system to address gas migration off-site.

### 6.6 Adequacy of the Monitoring Programs and Recommended Changes

#### 6.6.1 Monitors within the Waste

Gas concentrations in BH series monitors within the fill area should continue to be measured at least once in the summer and once in the winter. Additional data may be collected to assist in assessment of gas collection system operation.

#### 6.6.2 Monitors Adjacent to the PLCCS ("C" and "D" Series Probes)

The "C" and "D" probes should continue to be monitored for gas concentrations at least twice a year.

#### 6.6.3 Buffer Lands near the Property Boundary

The ten "BH" probes, located in the buffer near the property boundary, should continue to be monitored at least twice a year.

#### 6.6.4 Southwest Corner of the Site

The GP probes in the southwest corner of the site should be monitored quarterly for methane.

#### 6.6.5 PLCCS Gas Monitoring

The PLCCS manholes and pump stations should be monitored quarterly for methane.

# 7. Conclusions and Recommendations

### 7.1 Conclusions

#### 7.1.1 Operations

a) The malfunctioning of the flow meter that began in 2009 continued into 2010. The flow meter incorrectly measured the volume of leachate discharged by the Main Pump Station. Although flow meter readings could not be used to measure actual leachate flows, the volume of leachate discharged was approximated using pump calibration test results and pump hour meter readings. On July 20, 2010 a new flow meter was installed.

b) A estimated 119,692.4 $m^3$ of leachate was collected in 2010 and conveyed to the sanitary sewer, based on the pump calibration results.

c) The pump calibrations results, based on the water budget are most likely higher than the actual rates.

d) During 2010, there were no complaints registered at the landfill.

e) The PLCCS is operating effectively to collect leachate, prevent its migration, and to minimize leachate mounding within the landfill. Contingency plan implementation is not required at this time.

f) The gate valves and check vales within the main pumping station were replaced in 2010.

g) The force main pipe in the main pumping chamber was replaced, flushed and cleaned due to an accumulation of solids within the pipe.

h) There is no evidence of gas migration off-site.

### 7.1.2 Monitoring

a) The quality of the leachate from the PLCCS that is discharged to the municipal sanitary sewer remained within the Model Sewer Use By-Law Guidelines. The leachate $CBOD_5$, TKN and hydraulic loads are expected to be within 1% of the corresponding WWTP influent loads, as leachate quality remains similar to previous years, and thus would be insignificant.

b) Leachate quality in 2010 is similar to previous years. Higher concentrations are found in the waste and the lower concentrations are found predominantly in the outwash beneath the waste. Critical leachate parameter concentrations are provided below:

| Year | Outwash Beneath Waste | | | Waste | | |
|---|---|---|---|---|---|---|
| | ***Boron**** | ***Chloride**** | ***Iodide**** | ***Boron**** | ***Chloride**** | ***Iodide**** |
| **1994** | 3.0 | 364 | | 22.9 | 1,579 | |
| **1995** | 4.0 | 374 | | 34.3 | 1,641 | |
| **1996** | 3.83 | 348 | | 21.0 | 1,530 | |
| **1997** | 2.47 | 347 | | 15.7 | 1,330 | |
| **1998** | 2.53 | 371 | | 15.54 | 1,418 | |
| **1999** | 4.57 | 392 | | 28.09 | 1,625 | |
| **2000** | 2.16 | 363 | | 22.77 | 1,926 | |
| **2001** | 3.55 | 414 | <0.43 | 27.3 | 2,358 | 2.20 |
| **2002** | 1.3 | 341 | <0.47 | 22.5 | 2,268 | 2.22 |
| **2003** | 6.23 | 593 | <0.73 | 16.7 | 1,705 | 1.80 |
| **2004** | 4.9 | 563 | <0.92 | 17.2 | 1,516 | 1.79 |
| **2005** | 2.2 | 428 | <0.46 | 21.8 | 1,524 | 1.82 |
| **2006** | 1.58 | 332 | <1.4 | 20.34 | 1,670 | 1.50 |
| **2007** | 1.9 | 378 | <0.57 | 17.5 | 1,325 | 1.8 |
| **2008** | 2.07 | 413 | <0.81 | 14.6 | 1,322 | 2.1 |
| **2009** | 2.43 | 515 | <0.84 | 27 | 2,129 | <1.9 |
| **2010** | 2.46 | 714 | 0.76 | 27 | 2,333 | 2.2 |

*Note: * = Concentrations in mg/L*
*The slightly higher concentrations in the outwash beneath the waste in 2003 and 2004 are due to 55-IR. This monitor was considered to be damaged and has since been replaced.*

c) Groundwater flow directions around the site are similar to previous years. Assessment of vertical gradients towards the bedrock is similar to previous years. Vertical gradients are, on average, very low and therefore the estimated downward flow velocity is also very slow, in the order of only a few centimetres per year.

d) Landfill leachate effects are contained on-site in the shallow groundwater system as the PLCCS is working as designed. There was no exceedance of Guideline B7, the Reasonable Use Guideline in the shallow groundwater attributable to leachate release in 2010. Historical minor residual leachate effects are still observed south of the landfill along Eastview Road, outside of the sheet pile wall at location 16. It is expected that the residual leachate contamination will decrease naturally over time through dilution with clean infiltration and groundwater flow.

e) If the PLCCS continues to work as designed to prevent any further off-site migration of leachate, no new exceedances of Guideline B7 related to the landfill are predicted in the shallow groundwater.

f) The bedrock groundwater quality is similar to previous years. Location 37 (upgradient of the landfill) continues to exhibit slight increases in chloride, whereas location 50 has shown a minor increasing trend over the past couple of years. An assessment on these increasing trends, completed in early 2003, concluded that with the existing information collected to date, it does not appear that the change in water quality at monitors 37-I and 50-I is landfill related. The information suggests that the change is possibly related to a high chloride/low iodide source upgradient of the landfill. Although not conclusive, the only potential source identified in the area beyond the landfill would be road salt. To further address MOE concerns, additional monitors were completed in September 2007 to provide data to better refine groundwater flow in this area. An assessment of the more recent data continues to indicate that flow is into the landfill (i.e., 37-I is upgradient). Further, water quality results from the more recent monitors also indicate that the chloride at location 37-I is not landfill related as the monitor closer to the landfill is unaffected by chloride and is at background concentrations.

g) There is no indication of leachate in the bedrock groundwater, thus the Reasonable Use Guidelines are being met.

h) Guideline B7, the Reasonable Use Guidelines, is predicted to be met in future bedrock groundwater. Target elevations are being met in most areas within the landfill through the operation of the PLCCS. Where target elevations are not being met, the criteria used in the modelling completed in early 1997, were compared to the 2010 results and found to be similar. Therefore, the locations where the target elevations are not being met would not cause Guideline B7, Reasonable Use exceedances in the bedrock groundwater. In addition, the 2010 chemistry and vertical profile trends observed in the lower till do not indicate any presence of leachate impacts, again suggesting that Guideline B7, Reasonable Use will not be exceeded in bedrock groundwater.

i) The 2010 results show that the landfill has a negligible effect on downstream surface water quality. This trend has been seen each year since the leachate collector system was installed in 1991.

## 7.2 Response to the 2009 Recommendations

Below are the **"Recommendations for 2010**" contained in the 2009 Annual Report. Alongside each recommendation (in bold text) are the actions taken to address these recommendations.

### 7.2.1 Operations

a) The leachate flow meter should be replaced.

**The leachate flow meter was replaced on July 20, 2010.**

b) The main pump station pumps should be calibrated quarterly by conducting pump tests and the data used as a back up in the event the flow meter malfunctions.

**A pump test was conducted to determine the average pump rates for 2010. The results of the pump test were used to determine the total leachate pumped off-site until the flow meter was replaced on July 20, 2010.**

c) The PLCCS gravity lines, forcemains and chambers should be flushed in 2010.

**Visual inspection of chambers showed no significant silt accumulation. Due to water infiltration from rainfall, the air release valve chamber was drained and the meter and associated pipe inspected. Forcemains and gravity lines were flushed.**

d) The gate valves in the Main Pump Station should be replaced.

**The gates valves in the Main Pump Station were replaced in 2010.**

e) The Main Station check valves should be replaced if seating continues to be a problem. Otherwise the check valves in all pump stations should be inspected at least once a year.

**The check valves in the Main Pump Station were replaced in 2010. The valves in the south and west pump stations were inspected. Upon inspection, it was determined that there was no need to replace the valves in the south and west pump stations**.

f) All Main, South, and West pump station pumps, valves, fittings and other components should be inspected annually.

**Annual inspections of the pumps, valves, fittings, and other components will continue to take place annually**.

g) Hour meters in all pump stations should be checked quarterly to confirm they are operating properly.

**Hour meters in the pump stations were checked and will continue to be checked regularly to ensure they are operating properly.**

h) Annual alarm simulations should be completed to confirm alarm operation.

**An alarm simulation was completed in 2010. All equipment was found to be working correctly.**

i) The air release valve chamber should be inspected annually. A rain stopper barrier should be installed under the manhole lid to reduce surface runoff infiltration.

**The air release valve chamber was inspected in 2010. A rain stopper barrier will be installed under the manhole lid in 2011.**

j) Methane levels in all active pump stations should continue to be monitored. Remedial measures should be undertaken if concentrations above the LEL are measured and confirmed.

**Methane levels in the pump station are regularly monitored. All methane detected in the pump stations to date has been below the LEL.**

k) Methane detection and alarm systems should continue to be maintained and calibrated.

**The City continues to maintain and calibrate the equipment as required**.

l) The City should continue to carefully monitor gas concentrations in probe GP00-06. If higher gas concentrations persist, consideration should be given to implementing remedial measures in the area.

**The gas concentrations in GP00-06 continue to be monitored. Gas detectors in any adjacent building should also be monitored and tested to ensure they are functional. No remedial measures have been undertaken to date.**

## 7.3 Recommendations for 2010

The following are recommendations for 2010. (Note that these recommendations deal with issues other than the requirements specified in the C of A for the site).

### 7.3.1 Operations

a) The main pump station pumps should be calibrated at least annually by conducting pump tests and the data used as a back up in the event the flow meter malfunctions

b) The PLCCS gravity lines, forcemains and chambers should be flushed in 2011.

c) All Main, South, and West pump station pumps, valves, fittings and other components should be inspected annually.

d) Hour meters in all pump stations should be checked at least semi-annually to confirm they are operating properly.

e) Annual alarm simulations should be completed to confirm alarm operation.

f) The air release valve chamber should continue to be inspected. A rain stopper barrier should be installed under the manhole lid to reduce surface runoff infiltration.

g) Methane levels in all active pump stations should continue to be monitored. Remedial measures should be undertaken if concentrations above the LEL are measured and confirmed.

h) Methane detection and alarm systems should continue to be maintained and calibrated.

i) The City should continue to carefully monitor gas concentrations in all GP probes and particularly probe GP00-06 and probe GP-007. Remedial measures should be implemented as required in this area.

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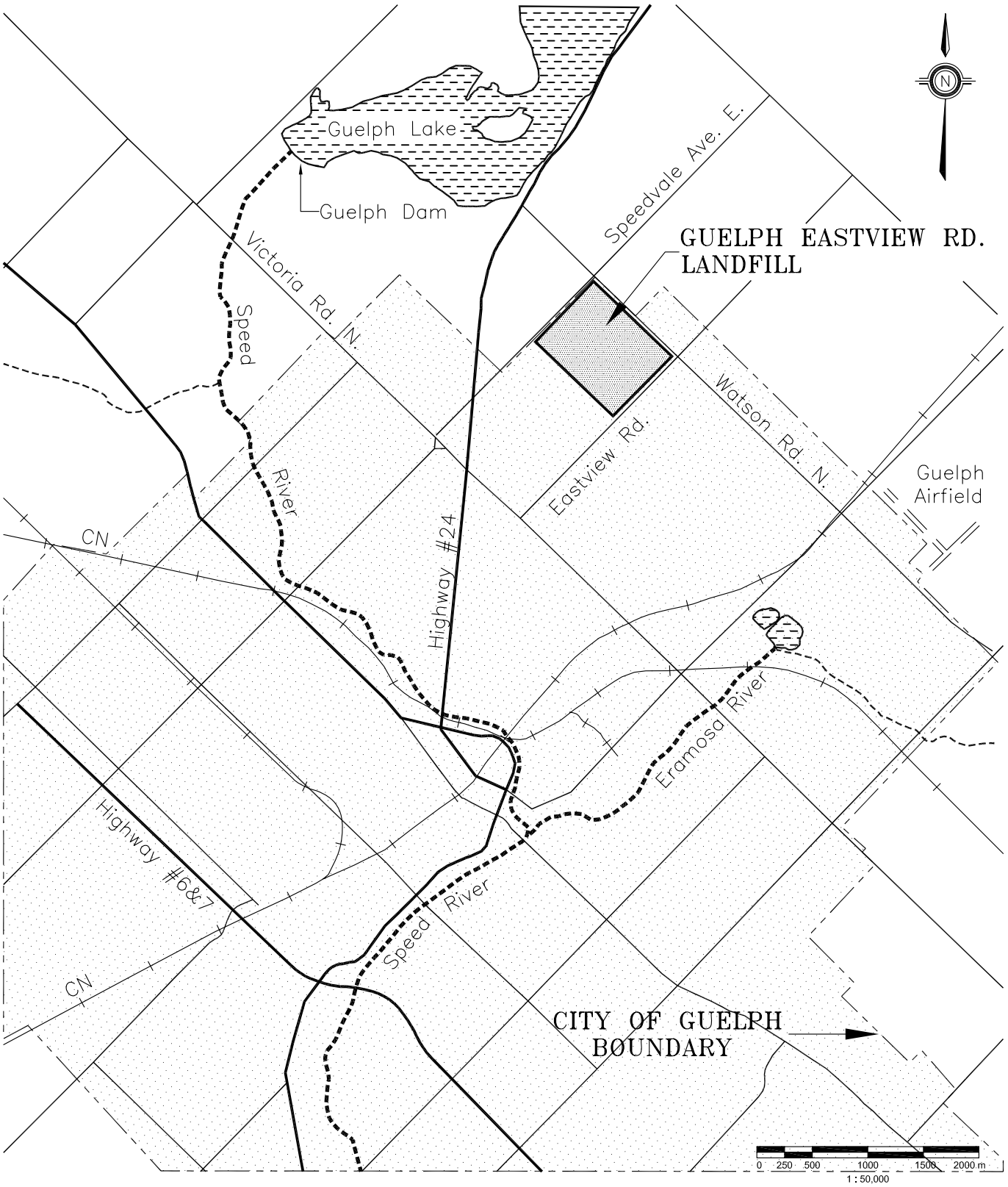
# Figures

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**Eastview Road Landfill**
**City of Guelph**

**Location Map**

Legend

PROJECT NUMBER
**60191188**

DATE
**April 2011**

FIGURE NUMBER
**1**

A SIZE 8.5" x 11" (215.9mm x 279.4mm)

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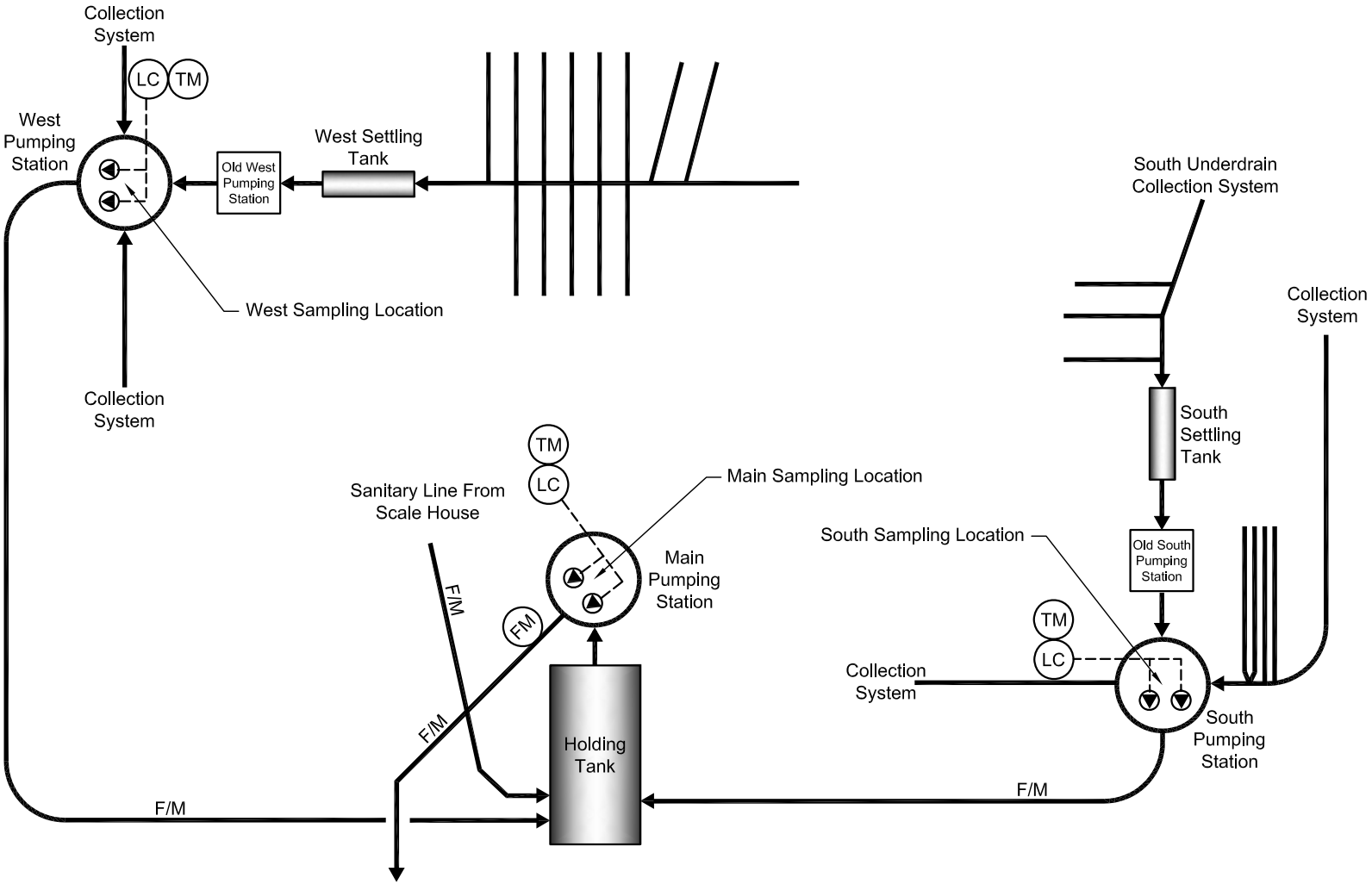


Legend

| | |
|---|---|
| LC | Level Control |
| TM | Timer |
| FM | Flow Meter |
| F/M | Force Main |

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# Eastview Road Landfill
# City of Guelph

## Leachate Collection System Process Flow Diagram

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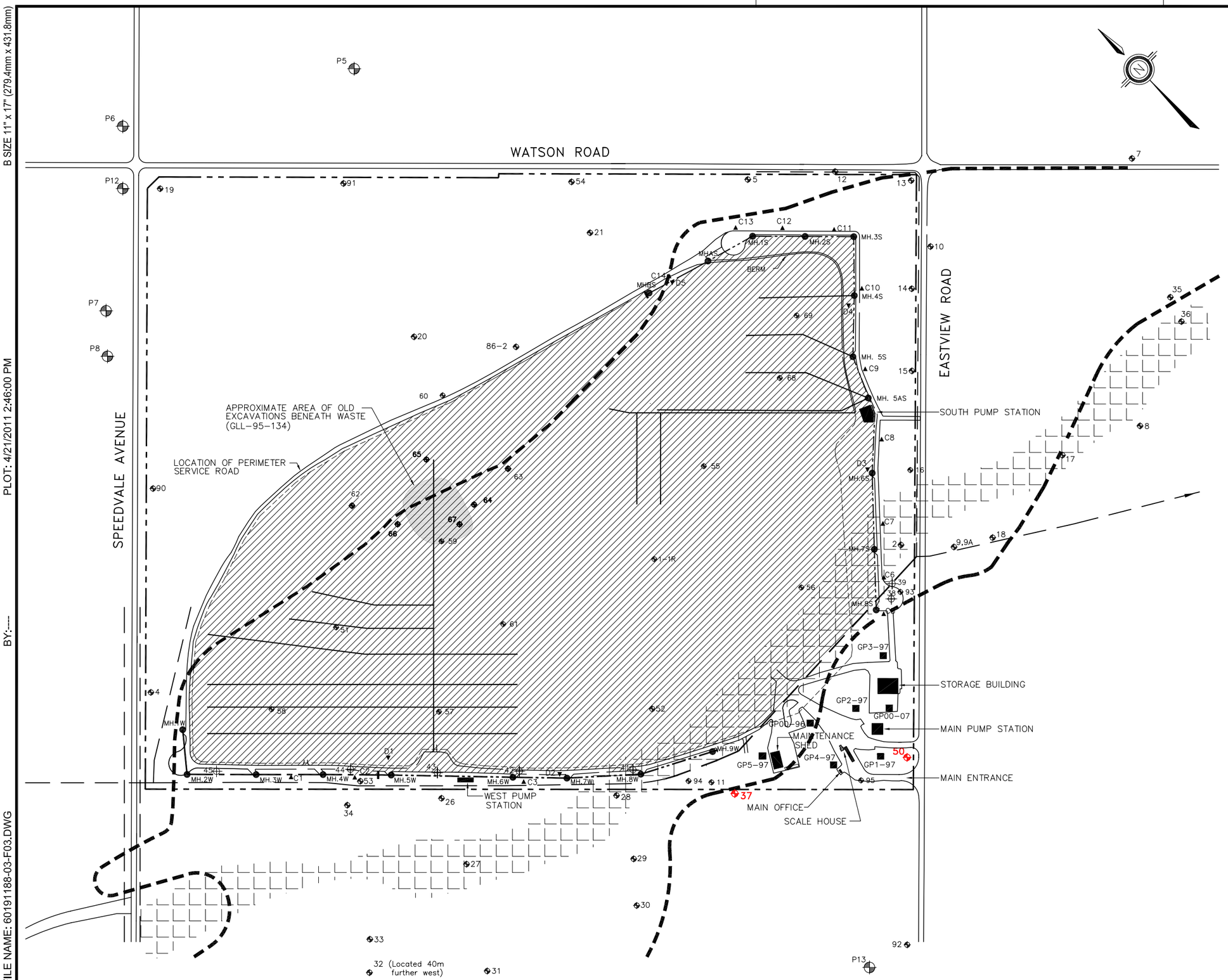


## Legend

- PROPERTY BOUNDARY
- APPROXIMATE EXTENT OF LANDFILL WASTES
- PERIMETER LEACHATE COLLECTION AND CONTAINMENT SYSTEM (PLCCS)
- PLCCS WITH SHEET PILE WALL PRESENT
- SURFACE DRAINAGE AND STORM DITCHES
- BURIED SURFACE WATER CULVERT
- PERIMETER OF SURFICIAL OUTWASH INTERPRETED FROM 1966 AND 1972 AIR PHOTOGRAPH, BOREHOLE LOGS AND OTHER SITE INFORMATION. (REVISED JULY 1995)
- APPROXIMATE EXTENT OF ESKER FORMATION
- MH. 5S — LOCATION AND DESIGNATION OF MANHOLES IN LEACHATE CONTAINMENT SYSTEM
- 7 — BOREHOLE/GROUND WATER MONITOR
- P5 — LOCATION AND DESIGNATION OF BEDROCK WATER SUPPLY WELL SAMPLED FROM 1983 TO PRESENT
- 38 — GOETECHNICAL BOREHOLES COMPLETED FOR PRE-CONSTRUCTION OF PLCCS. DESTROYED DURING CONSTRUCTION OF PLCCS IN 1990 – 1991.
- C12 — LOCATION AND DESIGNATION OF GROUND WATER MONITOR TO DOCUMENT LEACHATE CONTAINMENT SYSTEM PERFORMANCE (WATER ELEVATIONS ONLY)
- D1 — LOCATION AND DESIGNATION OF GROUND WATER MONITOR TO DOCUMENT WATER LEVELS UPGRADIENT OF LEACHATE CONTAINMENT SYSTEM (WATER ELEVATIONS ONLY)
- GP1-97 — GAS PROBES
- UNDERDRAIN NETWORK

0 25 50 100 150 200 m
1 : 5000

NOTE:
Existing base information taken from BRAUN CONSULTING ENGINEERING LTD. drawing (Number 88.15-1e, Rev. B, dated June 20/ 1990). Locations of boreholes 8, 9, 17, 18, 35 and 36 (southern wetland), as well as boreholes 26, 27, 28, 29, 30, 31, 32, 33 and 34 were revised (April 1999) based on the most recent survey by BRAUN CONSULTING ENGINEERING LTD. drawing (NUMBER 98153 Rev. C, dated Dec. 10, 1998).

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**Closed Eastview Road Landfill**
**City of Guelph**

**Leachate and Groundwater Monitor Site Locations**

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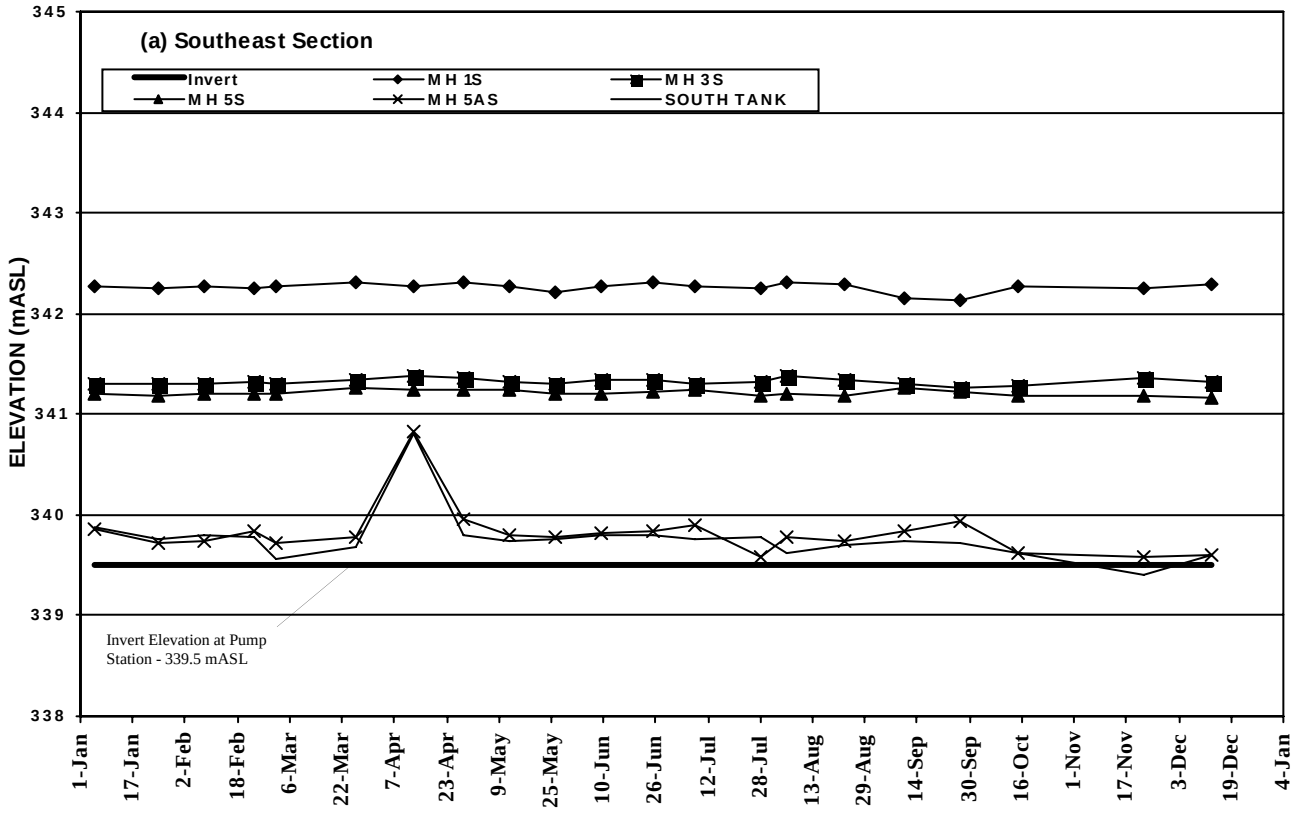
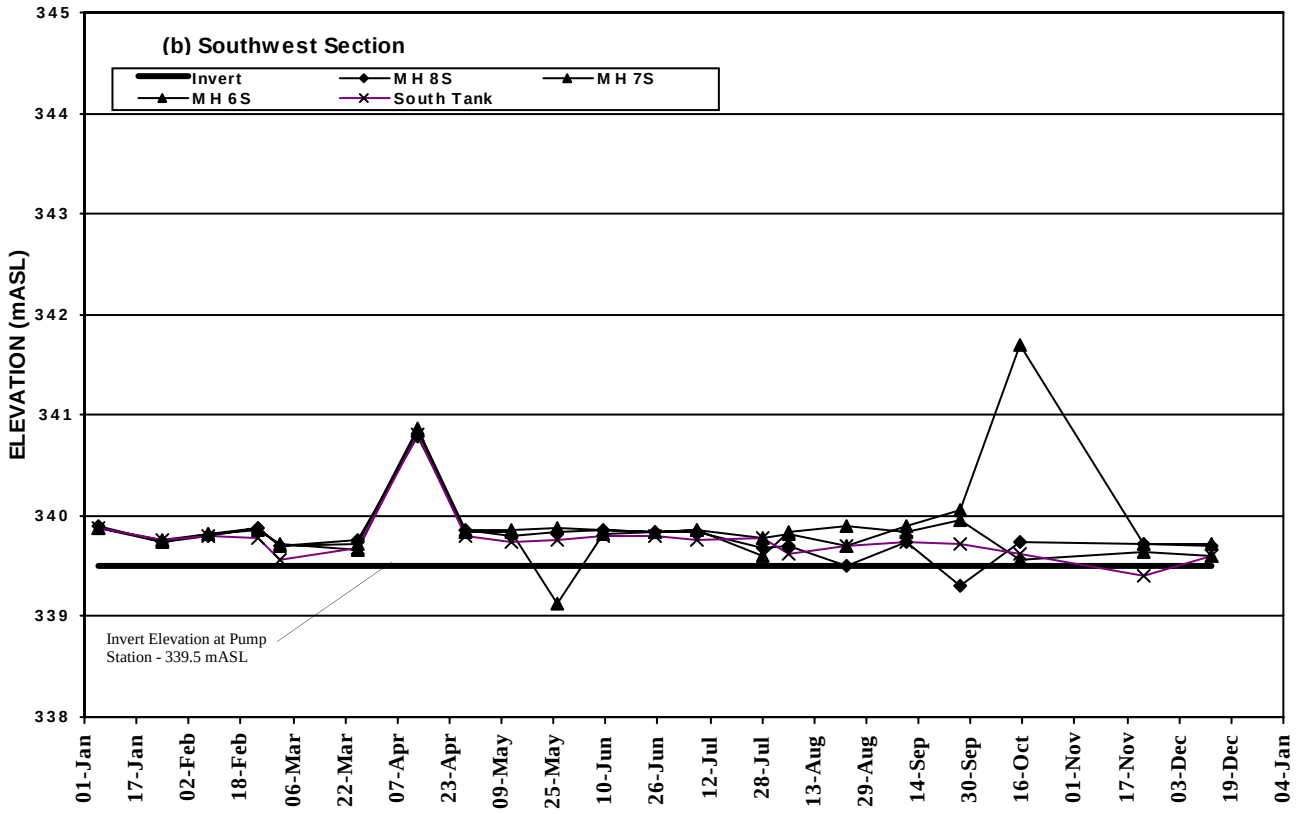


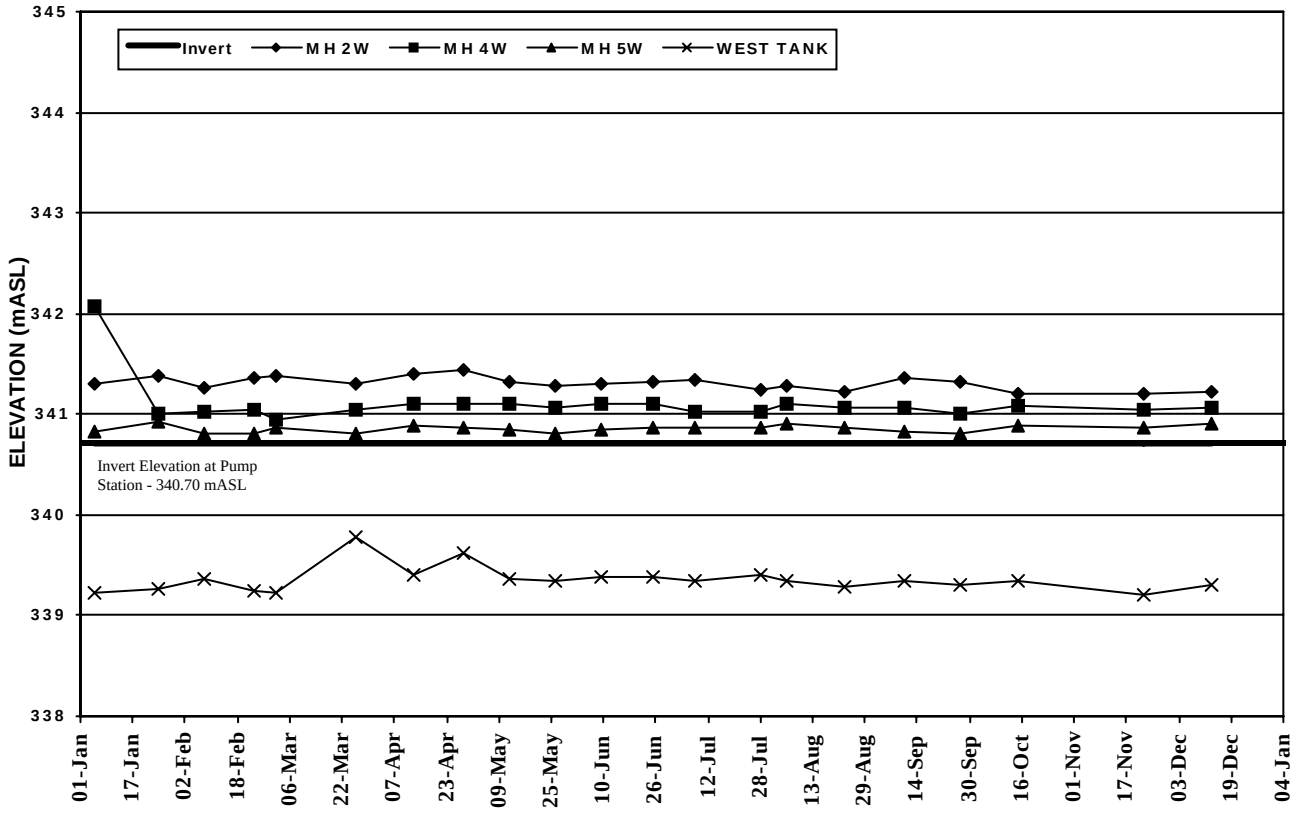

AECOM

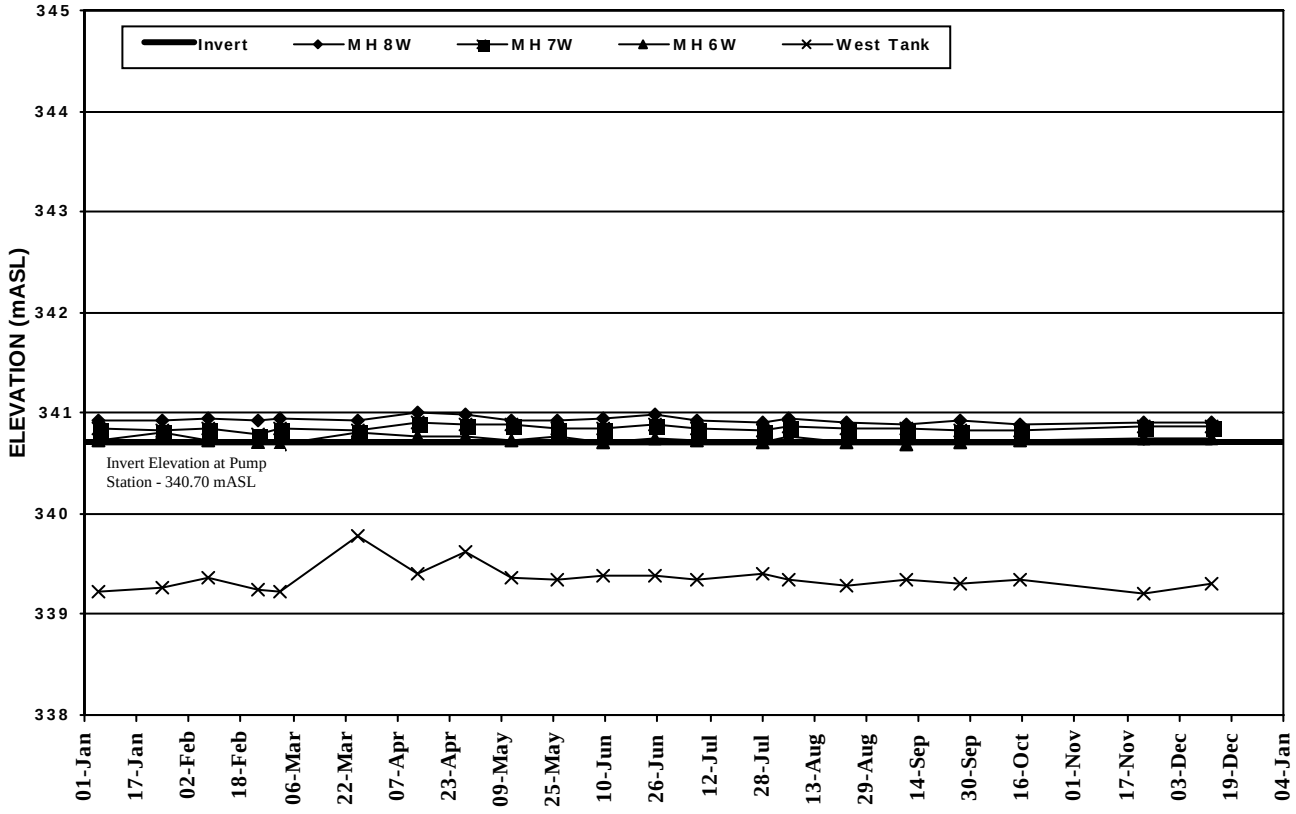
**Eastview Road Landfill Site**

**Leachate Levels Within Collector System**
**South Collector - 2010**

**FIGURE**
**4**

**60191188**
10c Rpt Leachate Elevation Plots South



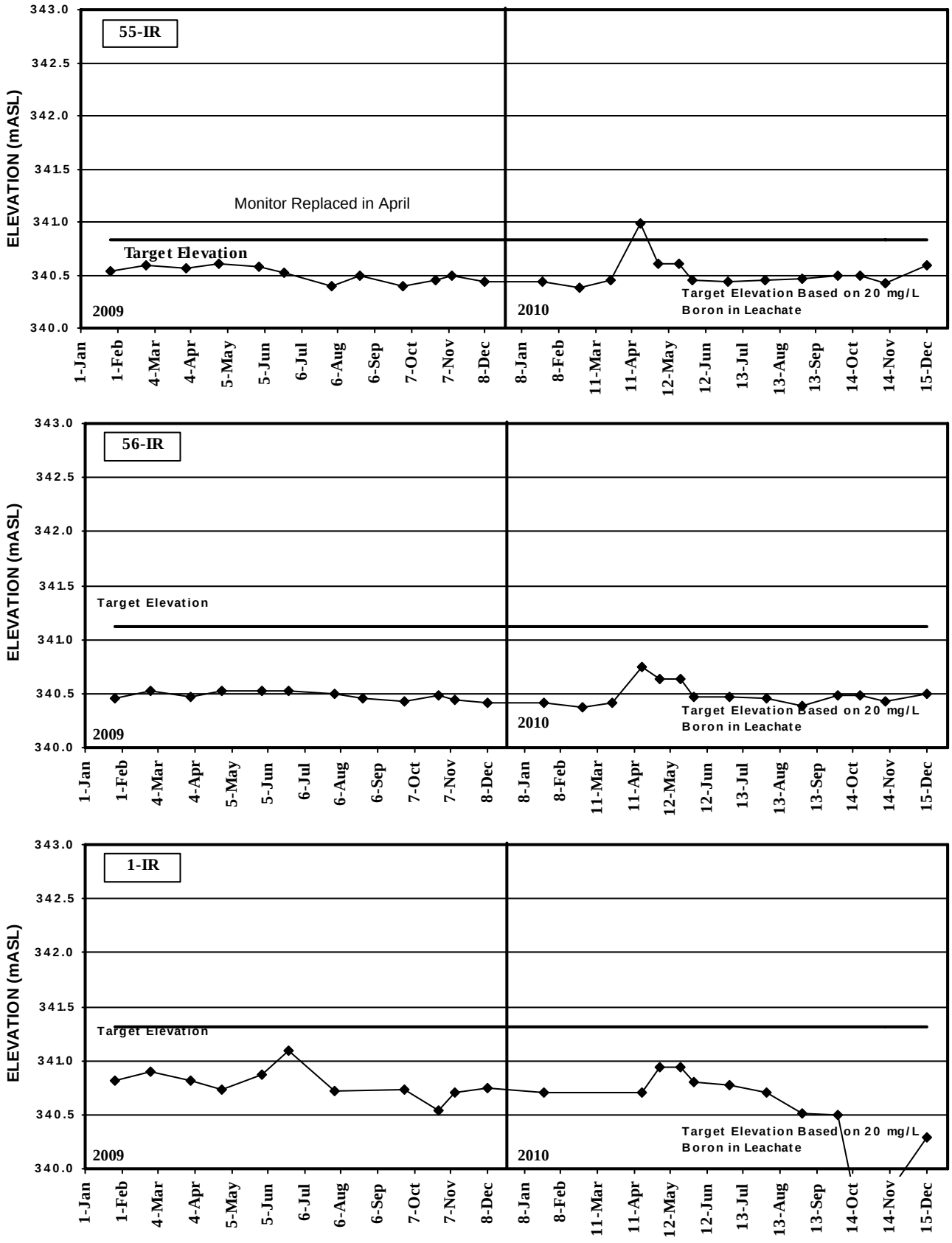

AECOM

**Eastview Road Landfill Site**

**Leachate Levels Within Collector System**
**West Collector - 2010**

**FIGURE**
**5**

**60191188**
10c Rpt Leachate Elevation Plots West1



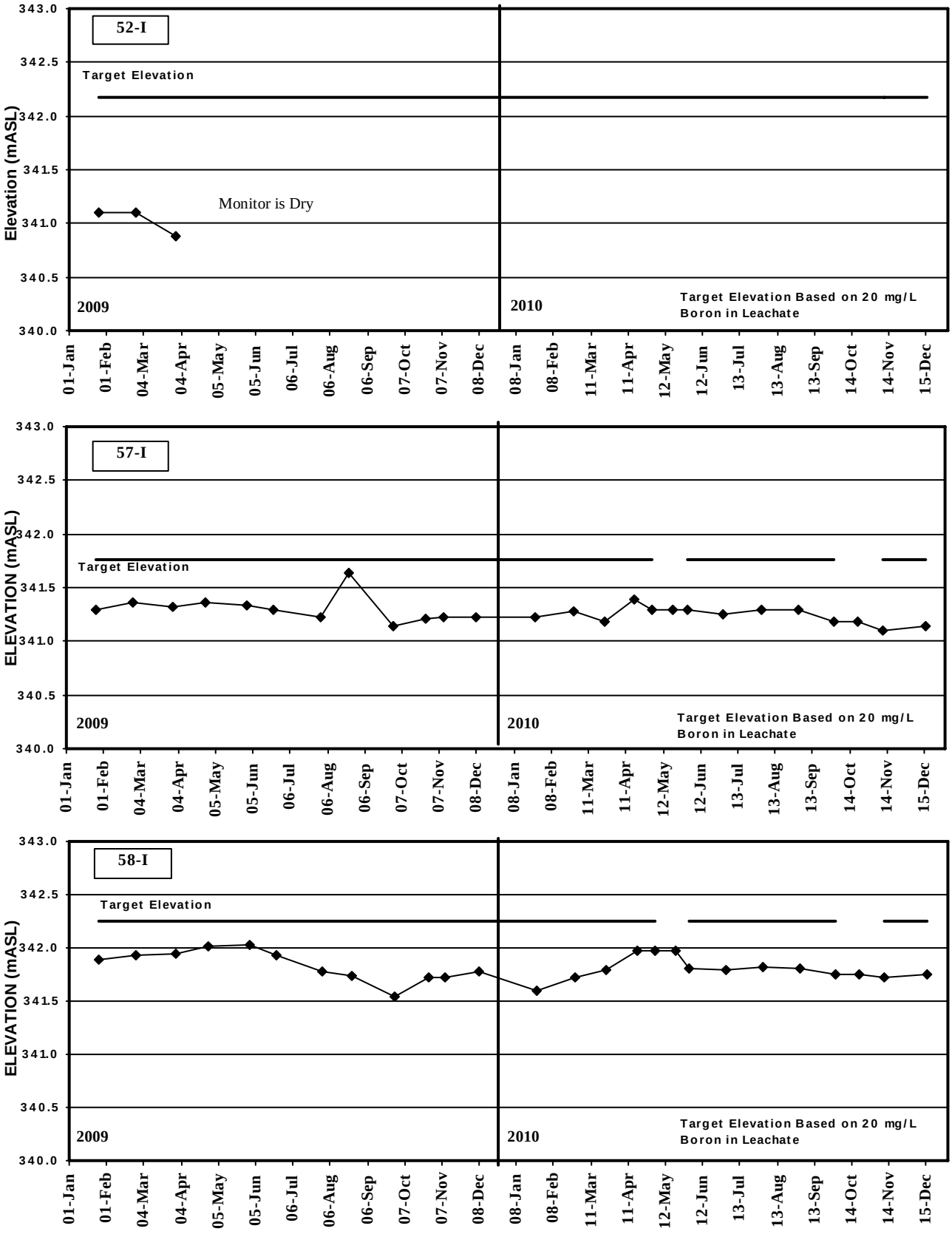

AECOM

**Eastview Road Landfill Site**

# Leachate Elevation Trends
## Southern Area of Landfill

**FIGURE**
**6**

**60191188**
10 Leachate WL Interior Area



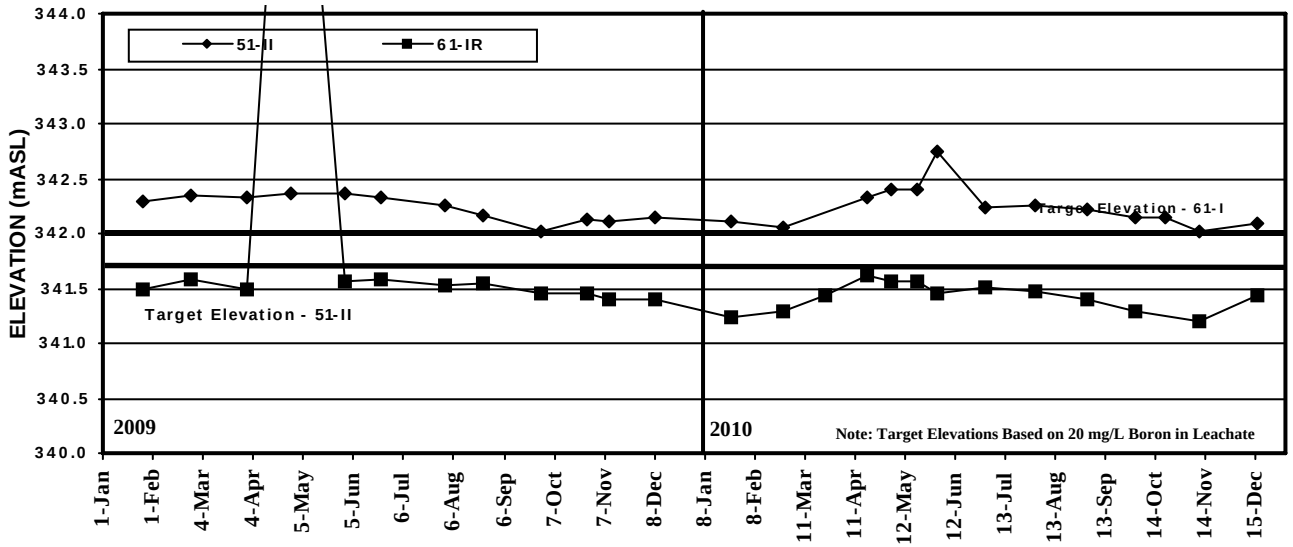

AECOM

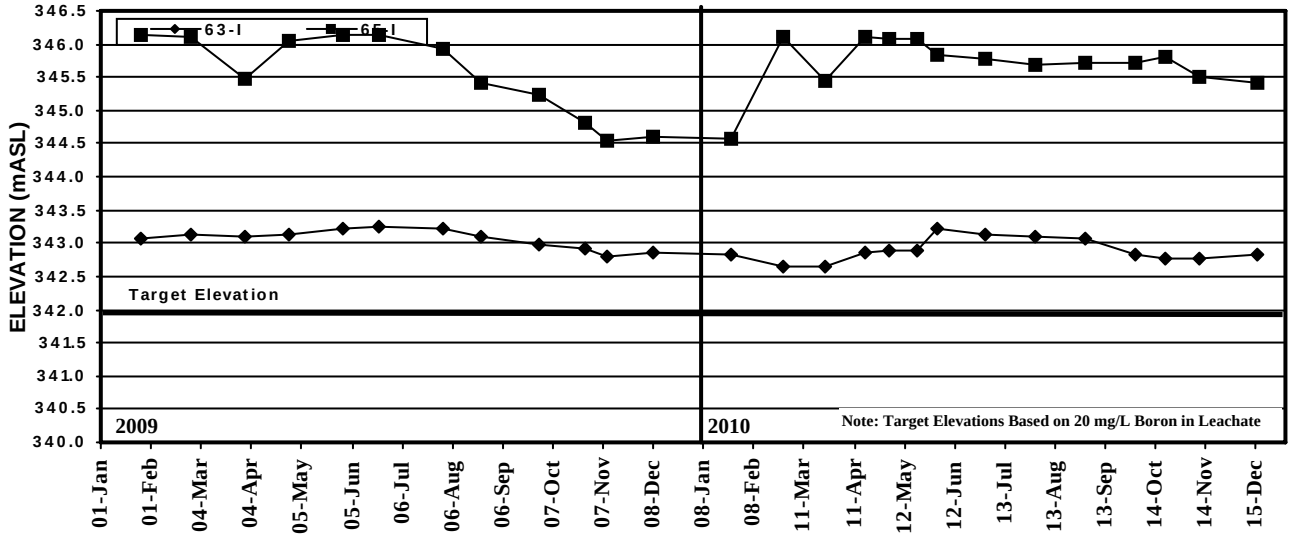
**Eastview Road Landfill Site**

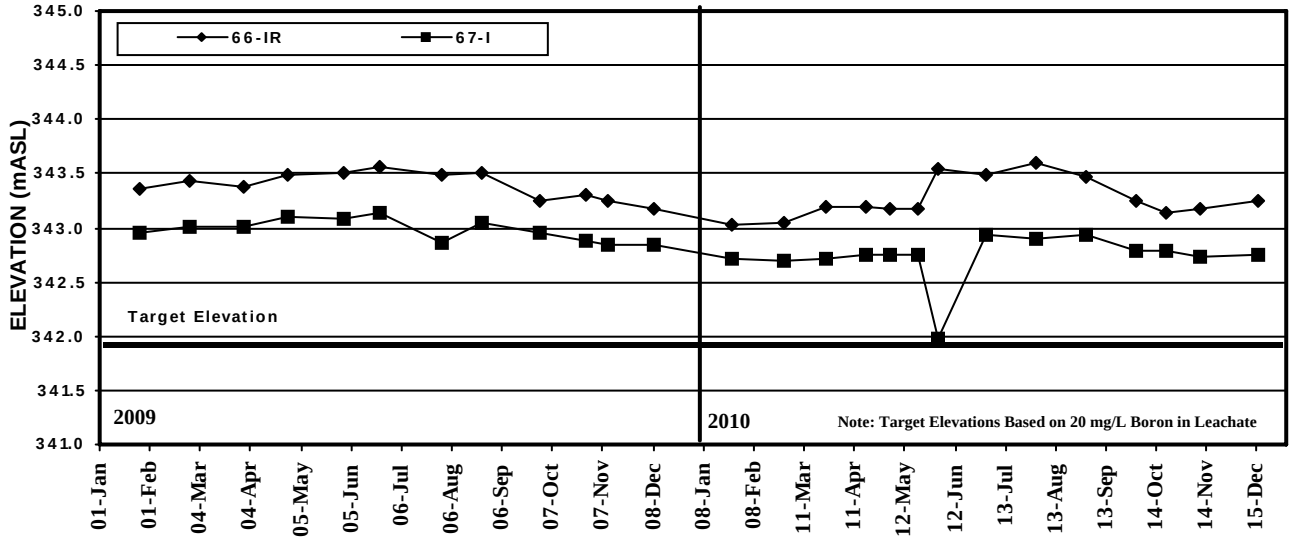
# Leachate Elevation Trends
## Western Area of Landfill

**FIGURE**
**7**

**60191188**
10 Leachate WL Western Area



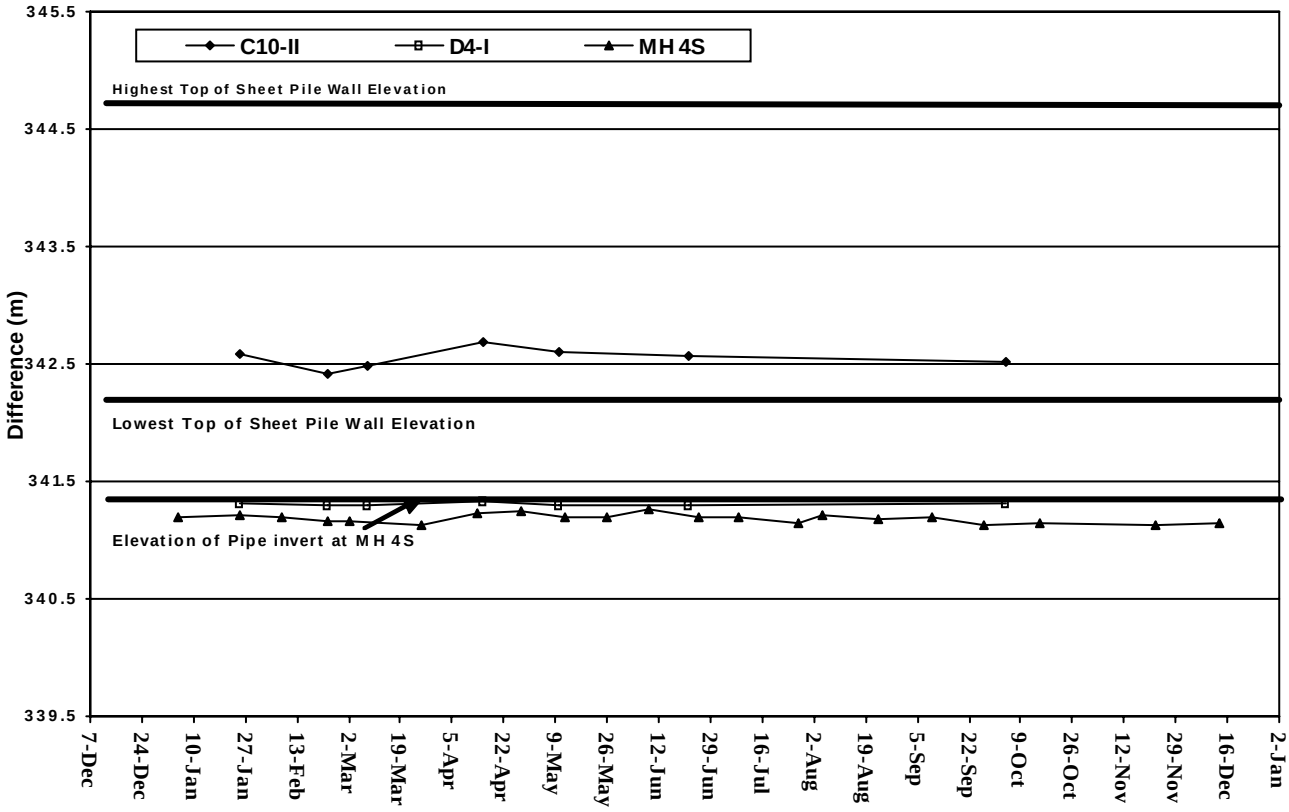

AECOM

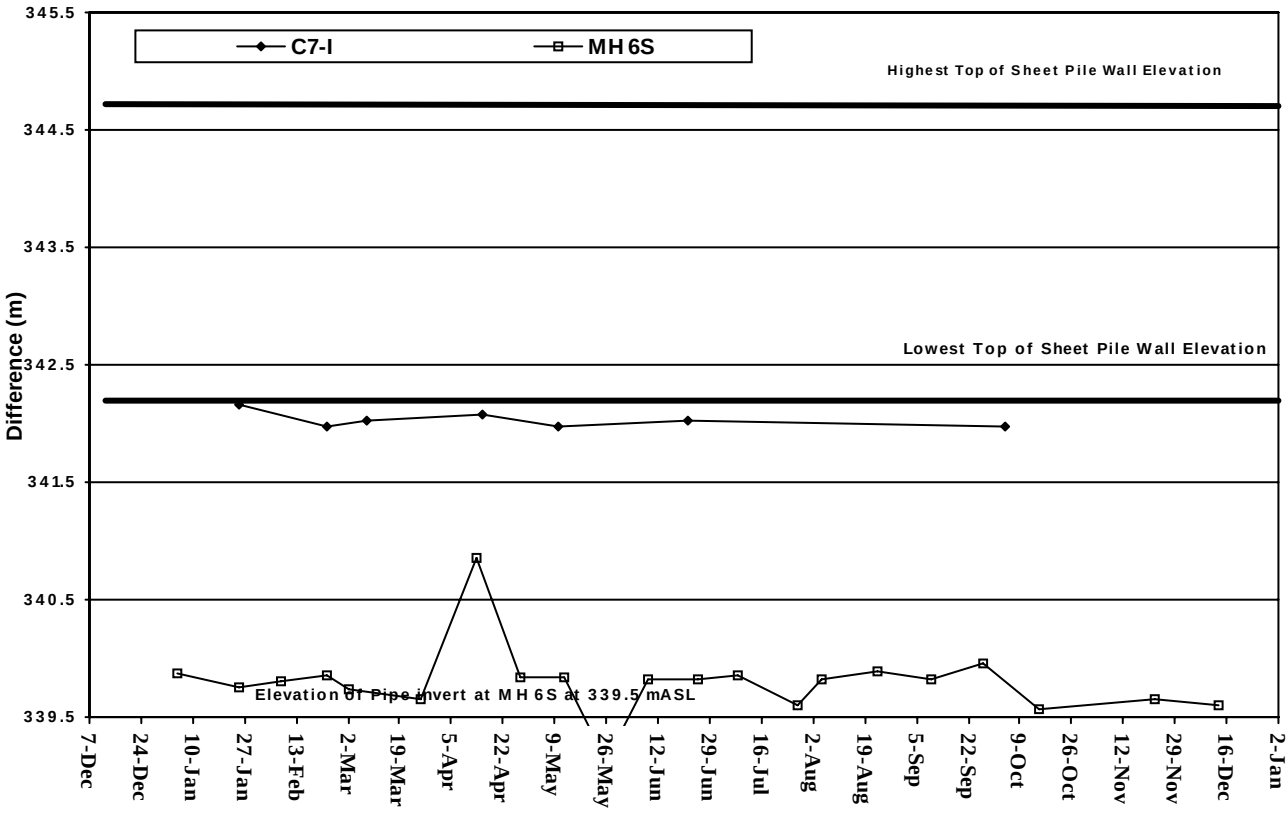
**Eastview Road Landfill Site**

**Leachate Elevation Trends**
**Interior Area of Landfill**

**FIGURE**
**8**

**60191188**
10 Leachate WL Interior Area




AECOM

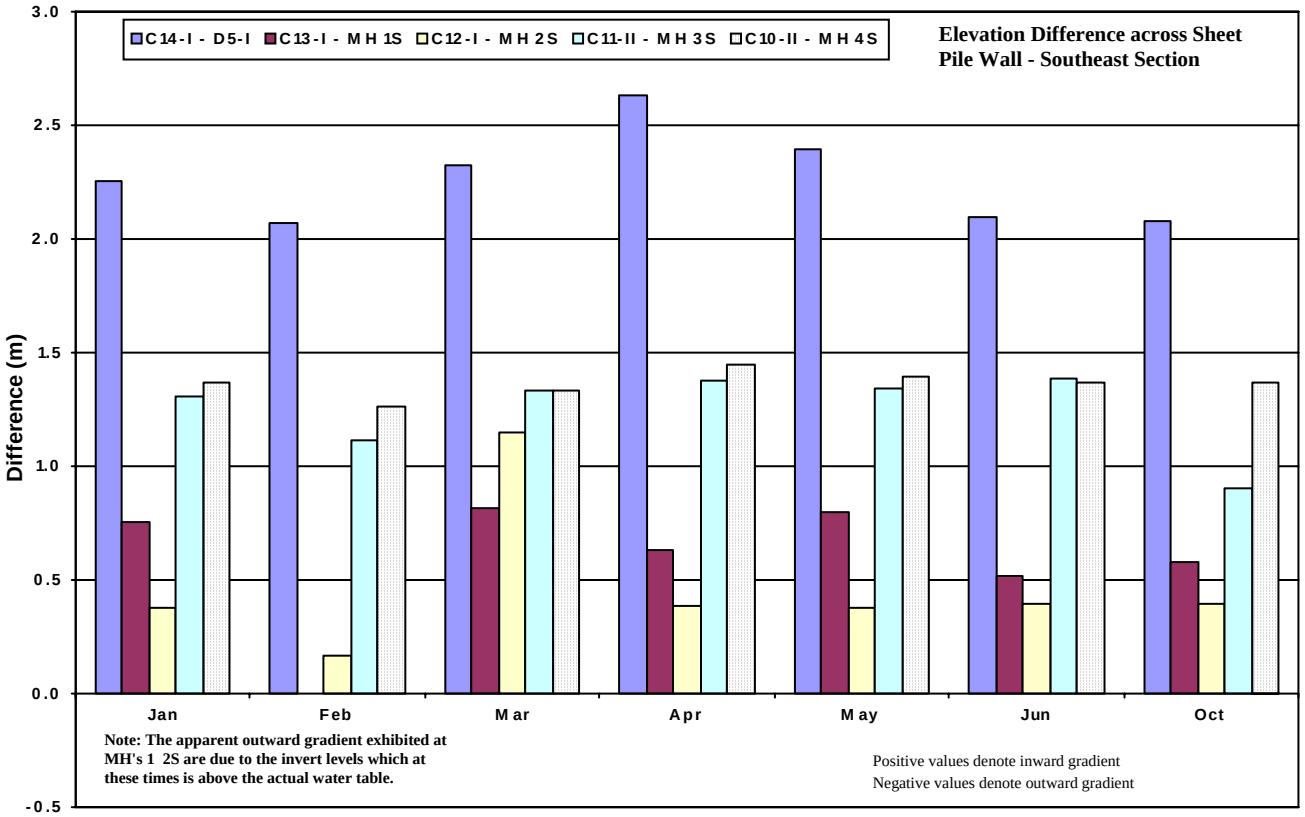
**Eastview Road Landfill Site**

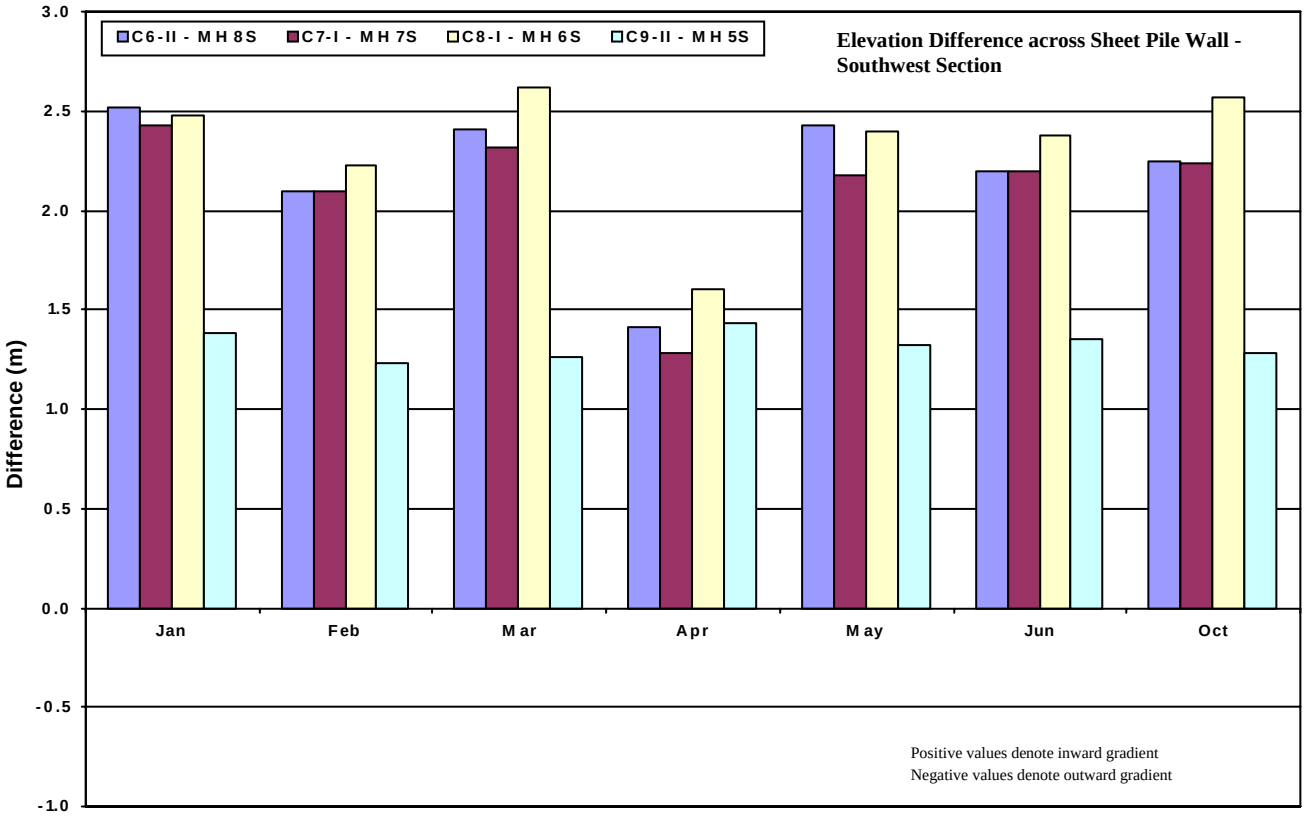
**Water Elevations in the South Collection System Selected Locations during 2010**

**FIGURE 9**

**60191188**

10c Rpt Water Level Comparison Along PLC




AECOM

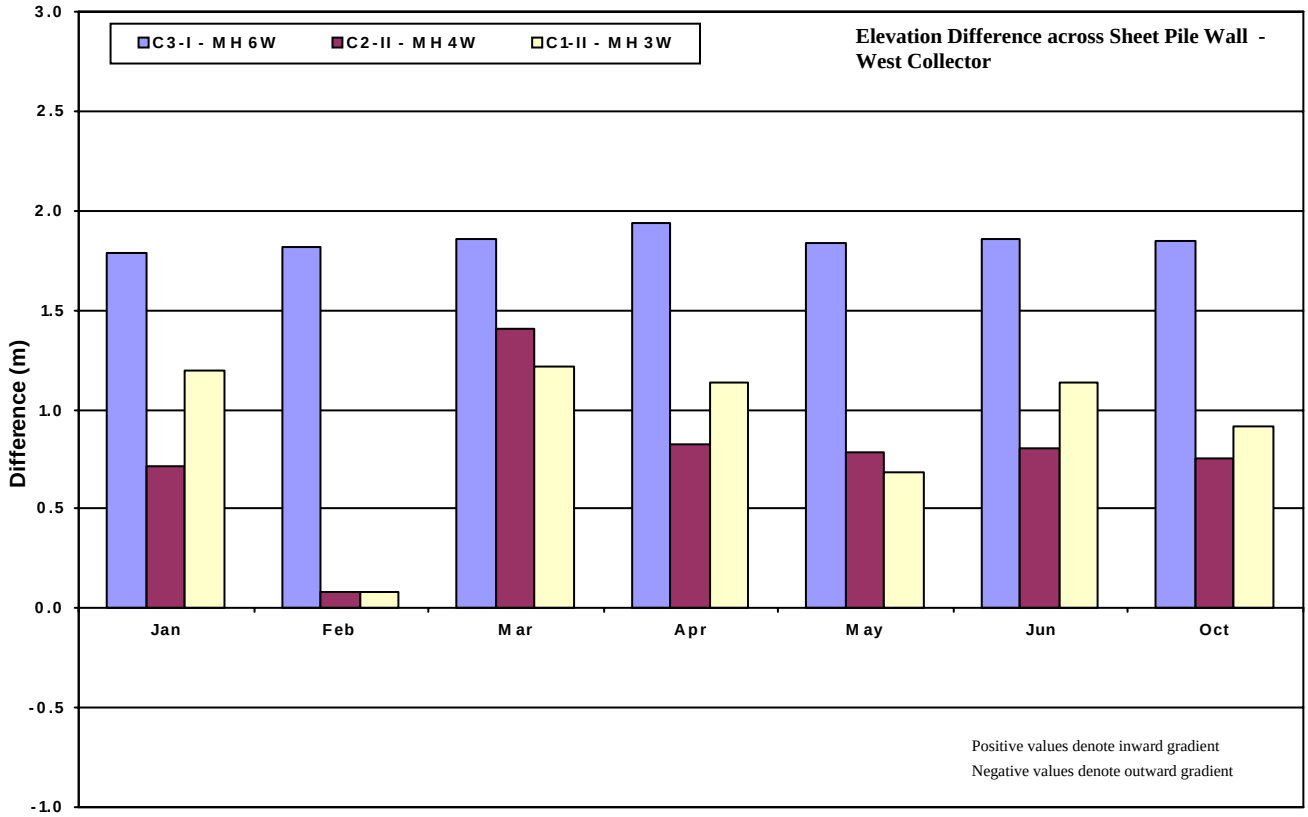
**Eastview Road Landfill Site**

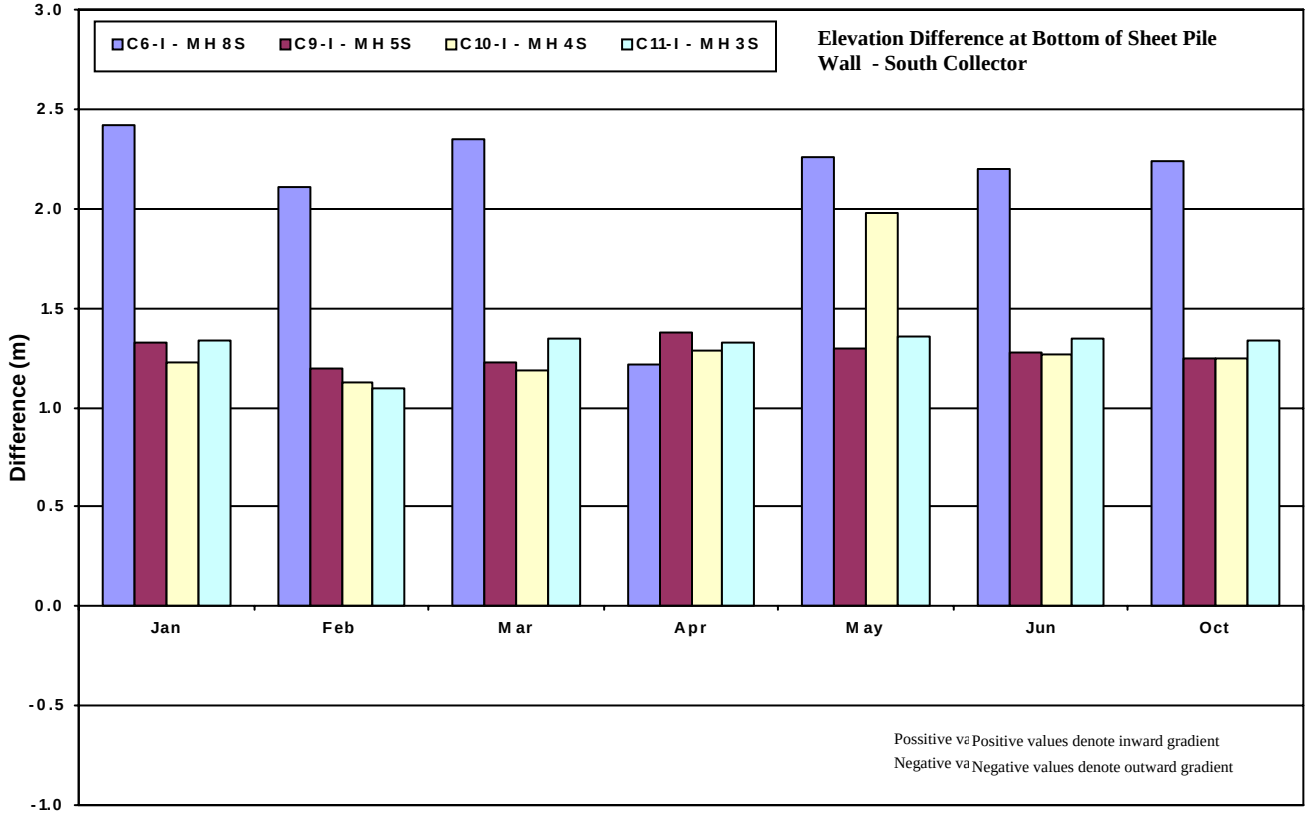
**Leachate Elevation Difference Across Sheet Pile Wall South Collector (2010)**

**FIGURE 10**

**60191188**

10d Rpt Leachate Elev Plots Gradient Sou



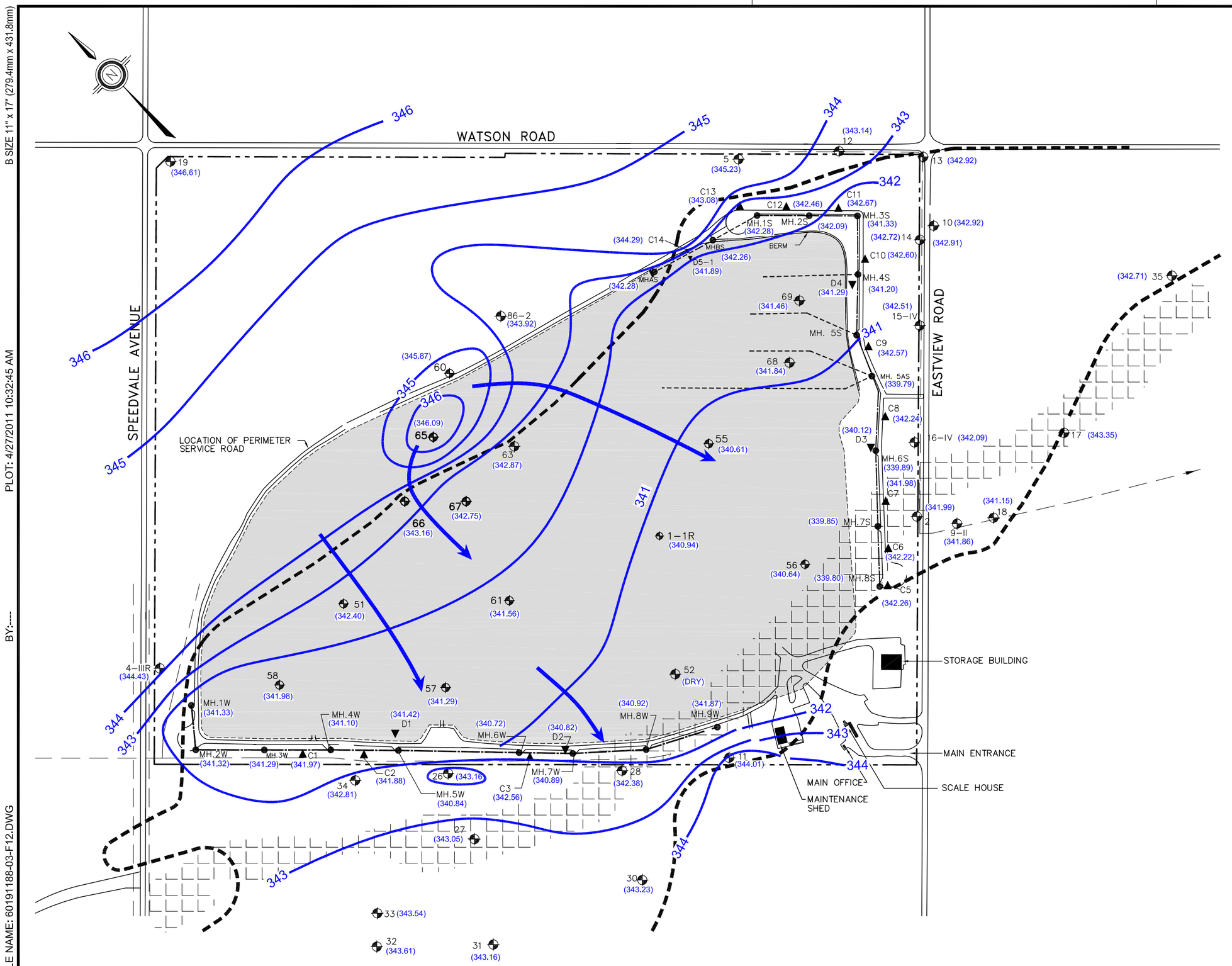

AECOM

**Eastview Road Landfill Site**

**Leachate Elevation Difference Across and Bottom of Sheet Pile Wall West and South Collector (2010)**

**FIGURE 11**

**60191188**
10d Rpt Leachate Elev Plots Gradient Wes




Legend

- PROPERTY BOUNDARY
- APPROXIMATE EXTENT OF LANDFILL WASTES
- LEACHATE COLLECTION AND CONTAINMENT SYSTEM
- SURFACE DRAINAGE AND STORM DITCHES
- BURIED SURFACE WATER CULVERT
- PERIMETER OF SURFICIAL OUTWASH INTERPRETED FROM 1966 AIR PHOTOGRAPHS, BOREHOLE LOGS AND OTHER SITE INFORMATION.
- NEW UNDERDRAIN NETWORK
- (342.71) ELEVATION CONTOUR OF WATER TABLE (mASL)
- APPROXIMATE EXTENT OF ESKER FORMATION
- MH. AS MANHOLES IN LEACHATE CONTAINMENT SYSTEM
- 7 GROUNDWATER MONITOR SITE
- C12 GROUNDWATER MONITOR TO DOCUMENT LEACHATE CONTAINMENT SYSTEM PERFORMANCE (WATER ELEVATIONS ONLY)
- D1 GROUND WATER MONITOR TO DOCUMENT WATER LEVELS UPGRADIENT OF LEACHATE CONTAINMENT SYSTEM (WATER ELEVATIONS ONLY)
- INFERRED DIRECTION OF SHALLOW GROUNDWATER FLOW

NOTES:
- Contours not shown in and directly adjacent to PLCCS for legibility.
- Existing base information taken from BRAUN CONSULTING ENGINEERING LTD. drawing (Number 88.15-1e, Rev. B, dated June 20/1990).

0 25 50 100 150 200 m
1 : 5000

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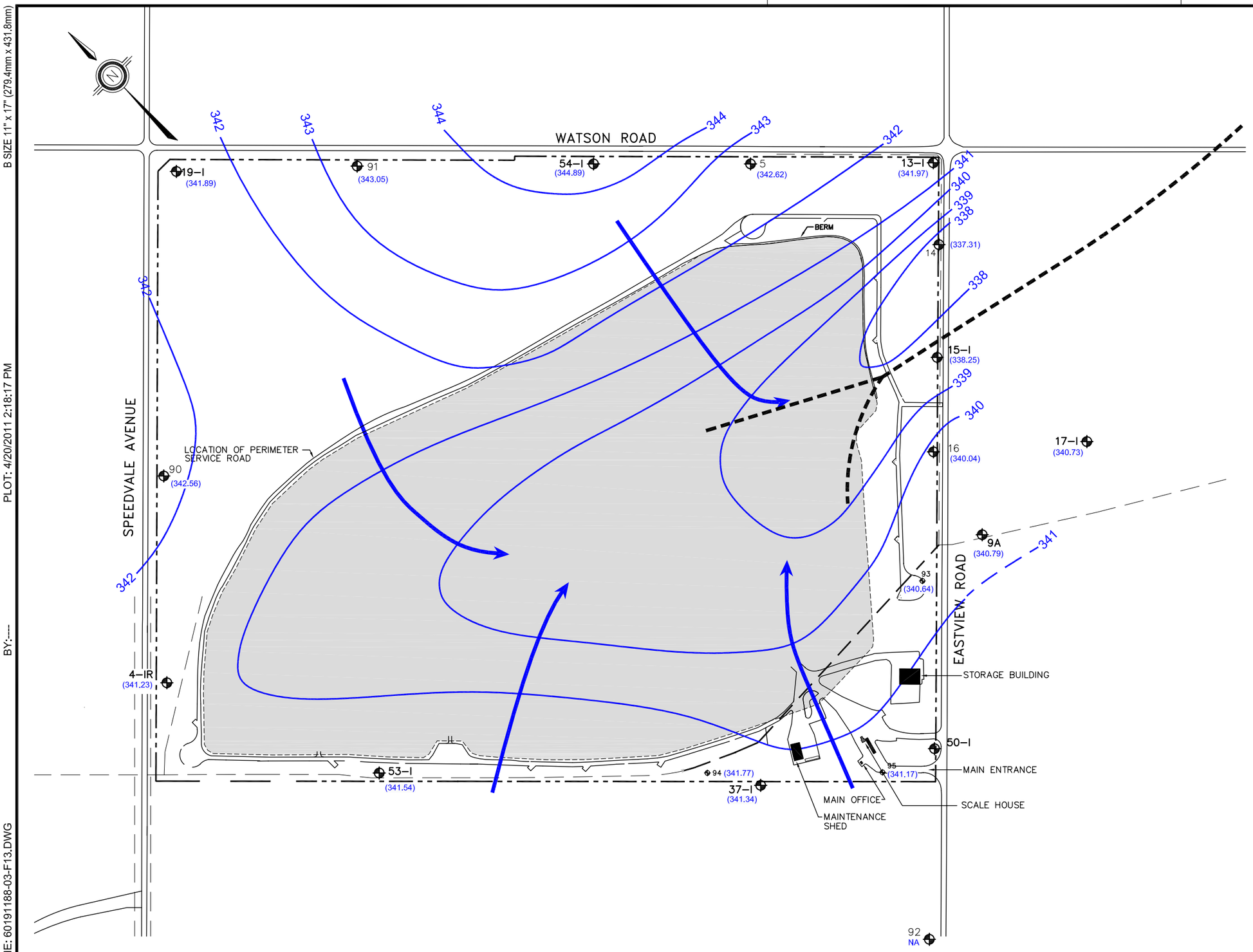
**Eastview Road Landfill**
**City of Guelph**

**Water Table and Shallow Groundwater Flow (May 2010)**

| PROJECT NUMBER | DATE | FIGURE |
|---|---|---|
| 60191188 | April 2011 | 12 |

B SIZE 11" x 17" (279.4mm x 431.8mm)
PLOT: 4/27/2011 10:32:45 AM
BY:----
FILE NAME: 60191188-03-F12.DWG
P:\60191188\000-CADD\040 CADD-BIM WIP\03 2010 ANNUAL MONITORING REPORT\60191188-03-F12.dwg Layout:Fig 12 Plotted: Apr 27, 2011 @ 10:32am by dudasl




Legend

- PROPERTY BOUNDARY
- APPROXIMATE EXTENT OF LANDFILL WASTES
- LEACHATE COLLECTION AND CONTAINMENT SYSTEM
- SURFACE DRAINAGE AND STORM DITCHES
- BURIED SURFACE WATER CULVERT
- INFERRED BURIED BEDROCK CHANNELS
- 340 ELEVATION CONTOUR OF WATER LEVEL IN BEDROCK (mASL)
- INFERRED DIRECTION OF BEDROCK GROUNDWATER FLOW
- 53–I (340.04) BEDROCK GROUNDWATER MONITOR ELEVATION (MAY 2010)

NOTES:
- Existing base information taken from BRAUN CONSULTING ENGINEERING LTD. drawing (Number 88.15–1e, Rev. B, dated June 20/1990).

0 25 50 100 150 200 m
1 : 5000

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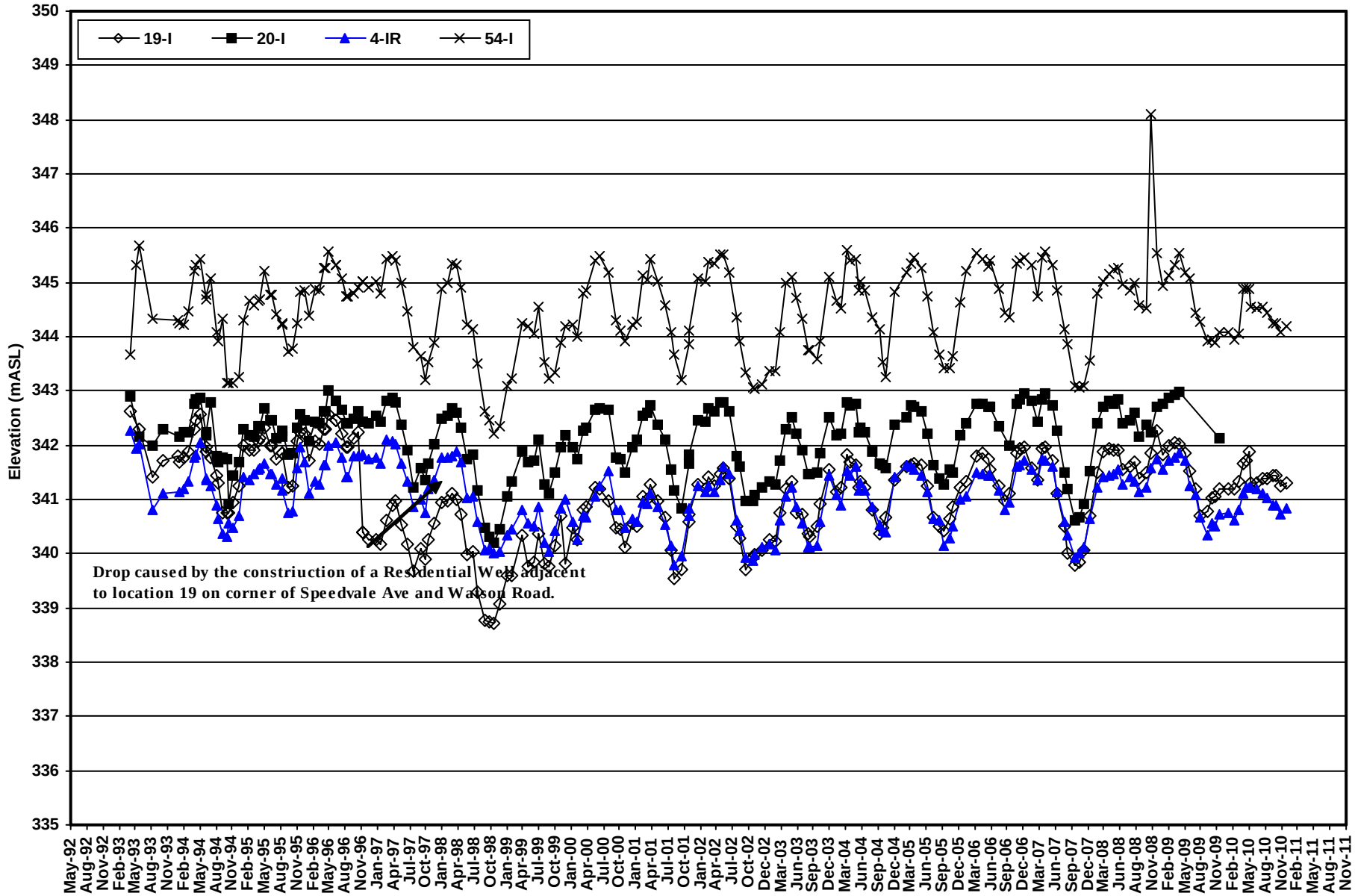
# Eastview Road Landfill
# City of Guelph
## Piezometric Heads and Groundwater Flow in Shallow Bedrock (May 2010)

| PROJECT NUMBER | DATE | FIGURE |
|---|---|---|
| 60191188 | April 2011 | 13 |

B SIZE 11" x 17" (279.4mm x 431.8mm)
PLOT: 4/20/2011 2:18:17 PM
BY:----
FILE NAME: 60191188-03-F13.DWG
P:\60191188\000-CADD\040 CADD-BIM WIP\03 2010 ANNUAL MONITORING REPORT\60191188-03-F13.dwg Layout:Fig 13 Plotted: Apr 20, 2011 @ 2:17pm by dudasl




AECOM

# Eastview Road Landfill Site

## Bedrock Groundwater Elevations

### Locations in the Northeast Area of the Landfill Property

**FIGURE**
**14**

**60191188**

12e Rpt Bedrock Groundwater Elv in NE

B SIZE 11" x 17" (279.4mm x 431.8mm)
PLOT: 4/21/2011 2:47:04 PM
BY:----
FILE NAME: 60191188-03-F15.DWG

WATSON ROAD

SPEEDVALE AVENUE

EASTVIEW ROAD

13-II (lower till)
13-III (upper till)
13-IV (outwash)
13-V (fill/peat)

19-II (lower till)
19-IV (upper till)
19-V (upper till)

5-II (upper till)

C11-I (outwash)

21-I (upper till)
21-II (upper till)

10-II (outwash)
10-III (outwash)

C10-I (outwash)

14-II (outwash)
14-III (fill/peat)

35-I (outwash)

15-II (lower till)
15-III (upper till)
15-IV (gravelly outwash)
15-V (fill/peat)

60-I (lower till)
60-II (upper till)
60-III (upper till)

C9-I (outwash)

16-I (upper till)
16-IV (till/outwash)
16-V (fill/outwash)
16-VI (lower till)

LOCATION OF PERIMETER SERVICE ROAD

65 (fill/waste)

63 (outwash)

55-IR (outwash)

17-II (lower till)
17-III (upper till)
17-IV (esker)

62 (dry)

64 (dry)

67 (waste)

59-I (waste)

2-I (outwash)
2-II (outwash)

2-I (gravelly outwash)

1-IR

56-IR (outwash)

18-III (outwash)

9-I (gravelly outwash)

C6-I (gravelly outwash)

51-IR (waste)
51-II (outwash)

61-IR (outwash)

4-IIR (lower till)
4-IIIR (upper till)

58-I (outwash)

52-I (outwash)

57-I (outwash)

STORAGE BUILDING

MAIN ENTRANCE

MAIN OFFICE

MAINTENANCE SHED

SCALE HOUSE

C2-I (outwash)

53-IIR (lower till)

28-I (gravelly outwash)

26-I (gravelly outwash)

11-I (upper till)
11-II (gravelly outwash)
11-III (lower till)

30-I (outwash)

Legend

- PROPERTY BOUNDARY
- APPROXIMATE EXTENT OF LANDFILL WASTES
- PERIMETER LEACHATE COLLECTION AND CONTAINMENT SYSTEM (PLCCS)
- SURFACE DRAINAGE AND STORM DITCHES
- BURIED STORM SEWER
- PERIMETER OF SURFICIAL OUTWASH INTERPRETED FROM 1966 AIR PHOTOGRAPHS, BOREHOLE LOGS AND OTHER SITE INFORMATION. (REVISED JULY 1995)
- 5-II LOCATION AND DESIGNATION OF MONITORS

NOTES:
- Existing base information taken from BRAUN CONSULTING ENGINEERING LTD. drawing (Number 88.15-1e, Rev. B, dated June 20/1990).

0 25 50 100 150 200 m
1 : 5000

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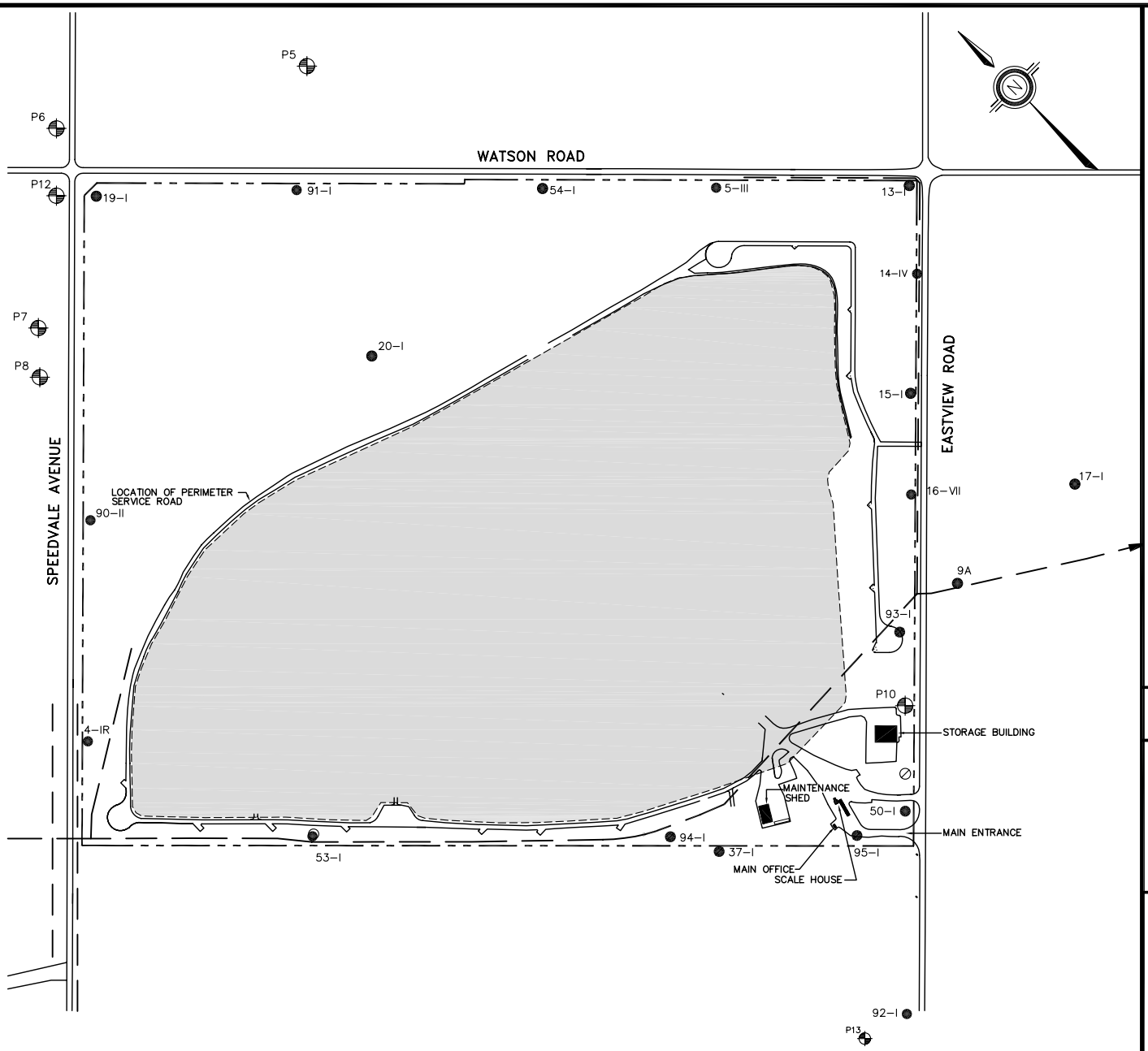
**Eastview Road Landfill**
**City of Guelph**

**Routine Groundwater Monitors Monitored in Waste, Outwash and Till During 2009**

| PROJECT NUMBER | DATE | FIGURE NUMBER |
|---|---|---|
| 60191188 | April 201 | 15 |

P:\60191188\000-CADD\040 CADD-BIM WIP\03 2010 ANNUAL MONITORING REPORT\60191188-03-F15.dwg Layout:Fig 15 Plotted: Apr 21, 2011 @ 2:47pm by dudasl




Legend

- PROPERTY BOUNDARY
- APPROXIMATE EXTENT OF LANDFILL WASTES
- SURFACE DRAINAGE AND STORM DITCHES
- BURIED STORM SEWER
- 19–I LOCATION AND DESIGNATION OF SHALLOW BEDROCK MONITORS
- P8 LOCATION AND DESIGNATION OF BEDROCK WATER SUPPLY WELL SAMPLED FROM 1983 TO PRESENT

NOTES:
- Existing base information taken from BRAUN CONSULTING ENGINEERING LTD. drawing (Number 88.15–1e, Rev. B, dated June 20/1990).

0 50 100 200 300 m
1 : 7500

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# Eastview Road Landfill
# City of Guelph

## Routine Groundwater Monitors Monitored in Bedrock During 2010

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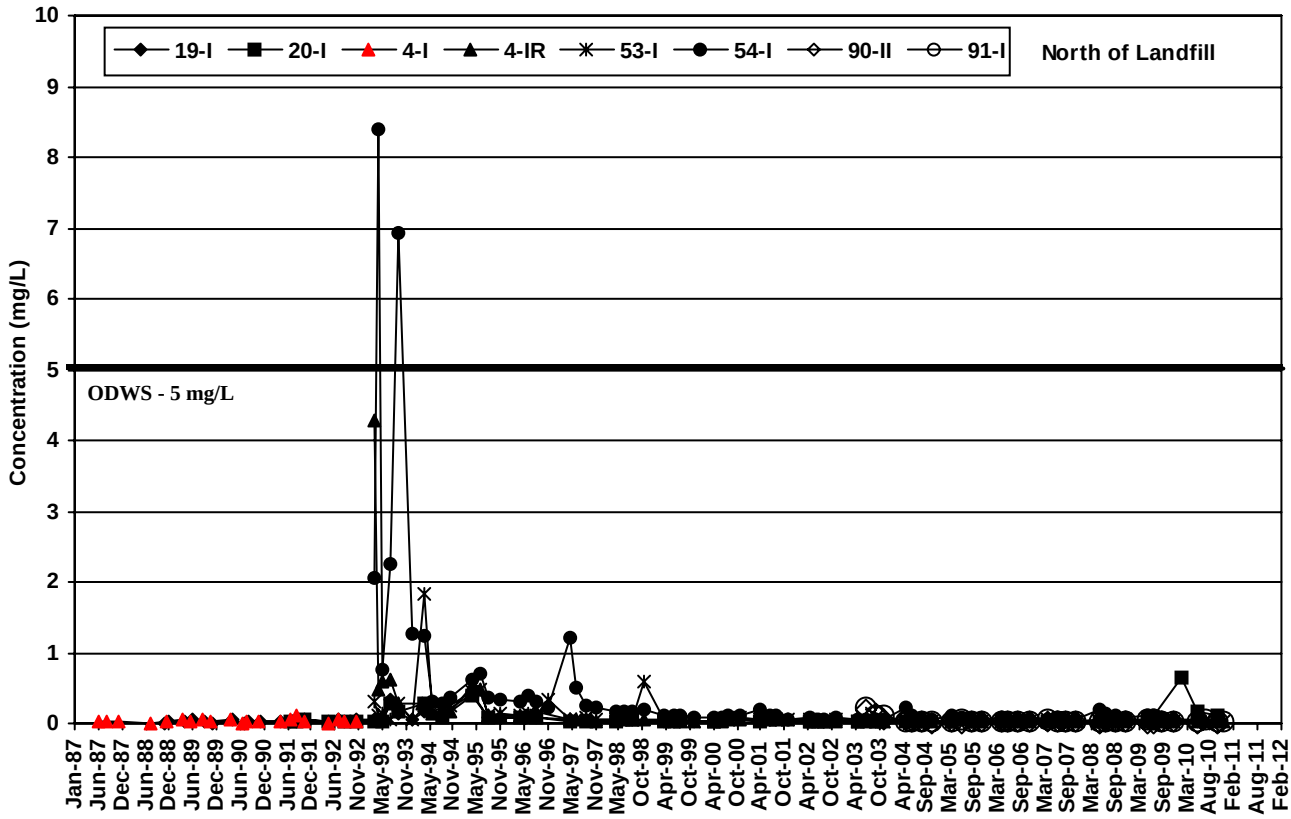
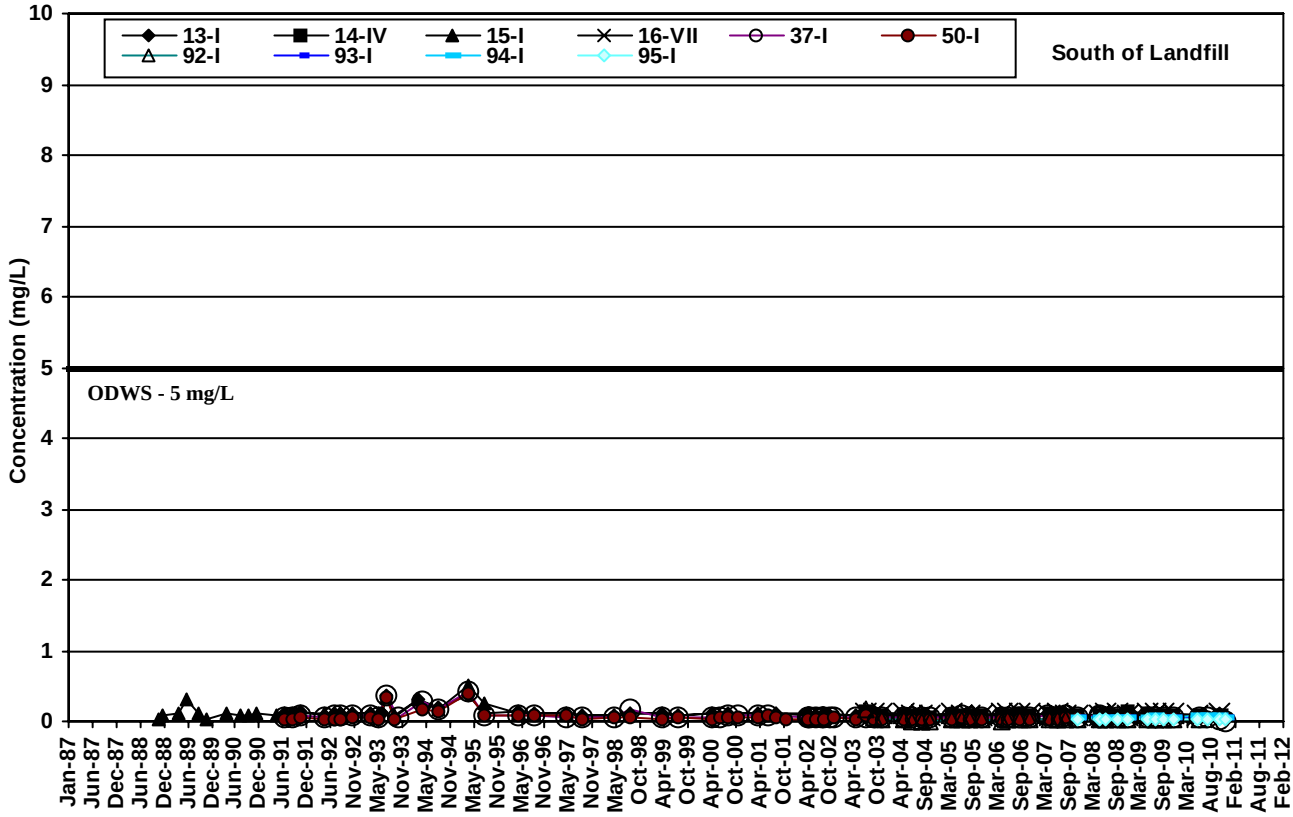
| PROJECT NUMBER | DATE | FIGURE NUMBER |
|---|---|---|
| 60191188 | April 2011 | 16 |

PLOT: 4/27/2011 10:33:11 AM SIZE 8.5" x 11" (215.9mm x 279.4mm)
BY:----
FILE NAME: 60191188-03-F16.DWG
P:\60191188\000-CADD\040 CADD-BIM WIP\03 2010 ANNUAL MONITORING REPORT\60191188-03-F16.dwg Layout:Fig 16 Plotted: Apr 27, 2011 @ 10:33am by dudasl

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**Eastview Road Landfill Site**

# Ground Water Chemistry Trends

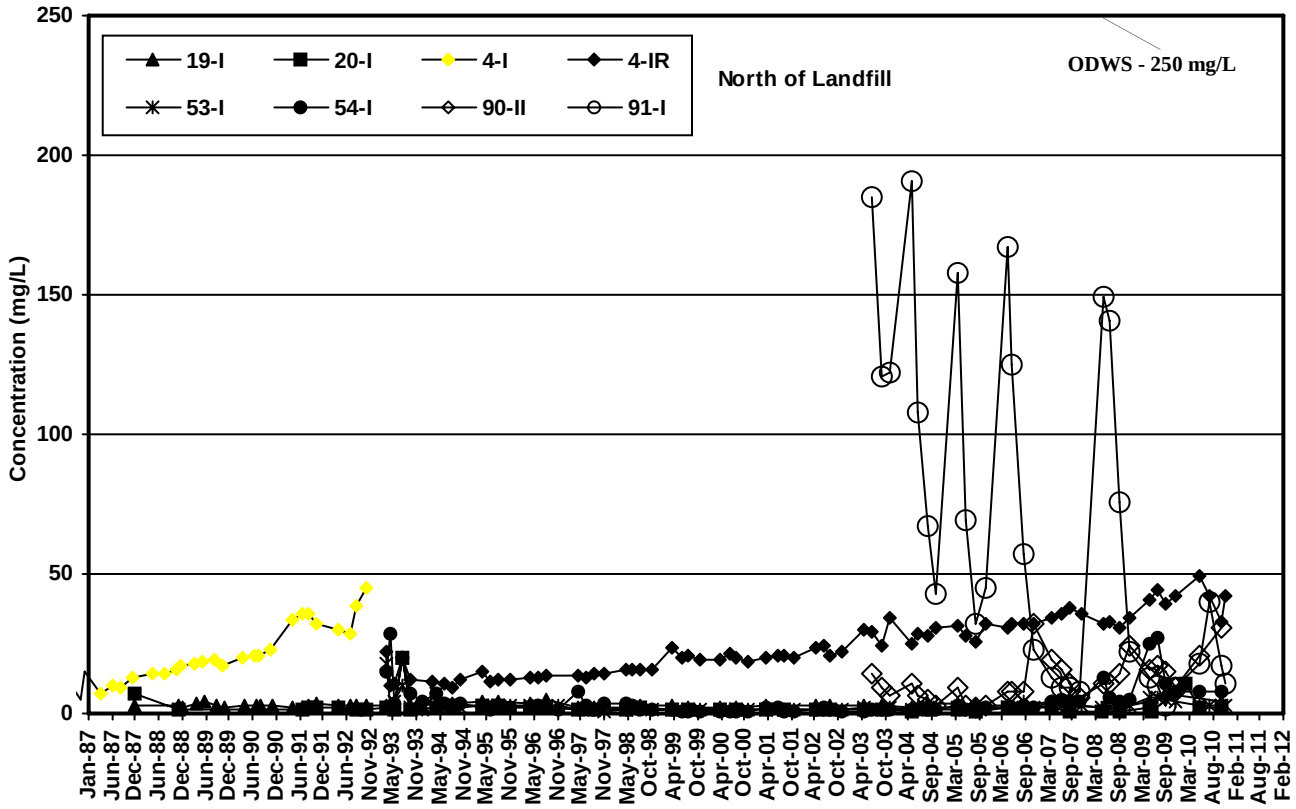
## Boron Concentrations in Bedrock

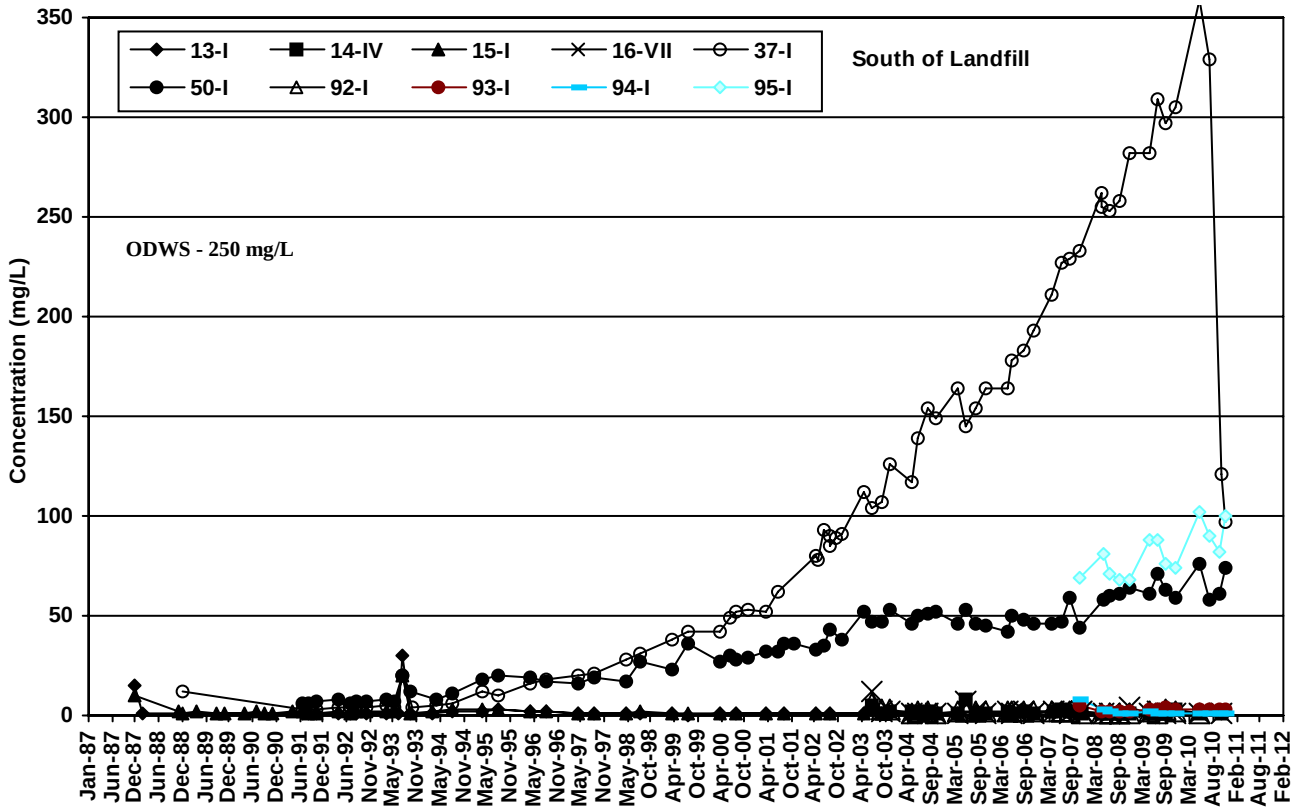
**FIGURE**

**17**

**60191188**

12a Detailed Boron Concentrations in Bed



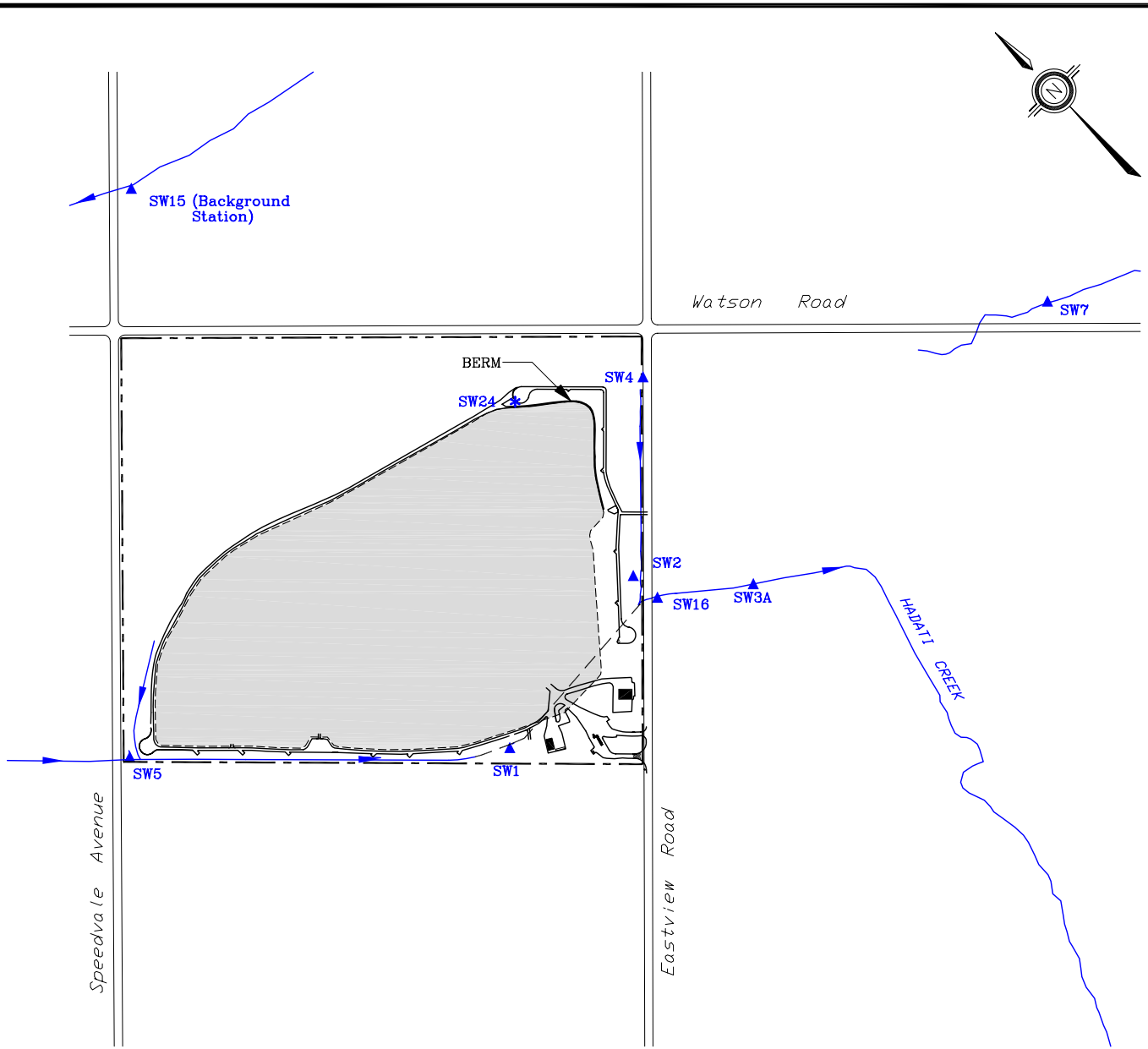

AECOM

**Eastview Road Landfill Site**

# Ground Water Chemistry Trends
## Chloride Concentrations in Bedrock

**FIGURE**
**18**

**60191188**
12a Detailed Chloride Concentrations in




Legend

- PROPERTY BOUNDARY
- APPROXIMATE EXTENT OF LANDFILL WASTES
- ▲ SW5 ROUTINE SURFACE WATER SAMPLING STATIONS
- ✱ SW21 SEDIMENT SAMPLING STATIONS
- UNDERGROUND PIPE
- DIRECTION OF FLOW

NOTES:
- Existing base information taken from BRAUN CONSULTING ENGINEERING LTD. drawing (Number 88.15-1e, Rev. B, dated June 20/1990).

0 50 100 200 300 400 500 m
1 : 12,500

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# Eastview Road Landfill
# City of Guelph

## Surface Water Monitoring Locations

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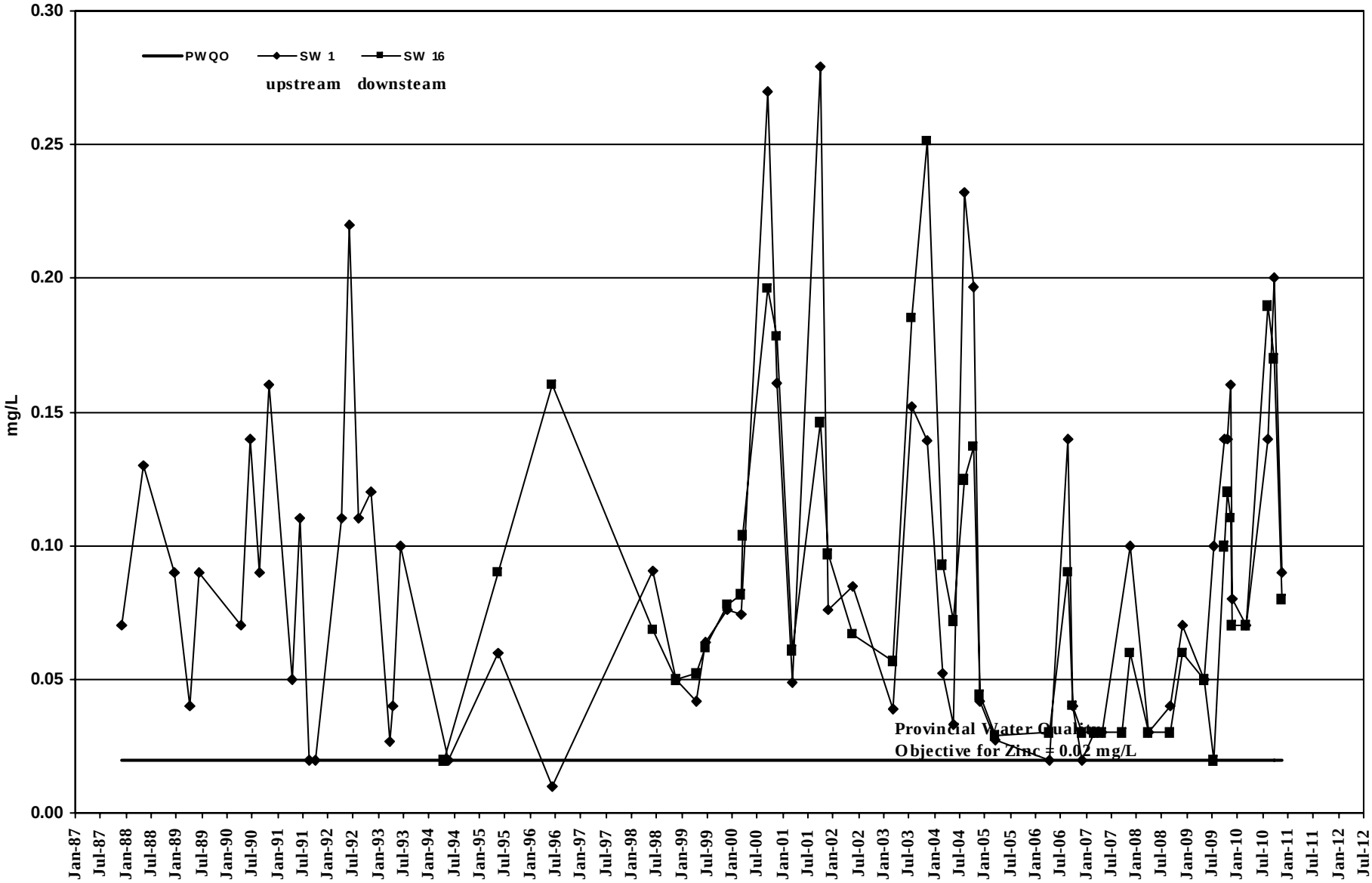
| PROJECT NUMBER | DATE | FIGURE NUMBER |
|---|---|---|
| 60191188 | April 2011 | 19 |

PLOT: 4/21/2011 2:49:13 PM SIZE 8.5" x 11" (215.9mm x 279.4mm) BY:----
FILE NAME: 60191188-03-F19.DWG
P:\60191188\000-CADD\040 CADD-BIM WIP\03 2010 ANNUAL MONITORING REPORT\60191188-03-F19.dwg Layout:Fig 19 Plotted: Apr 21, 2011 @ 2:49pm by dudasl

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**Eastview Road Landfill Site**

**Surface Water Quality Trends**

**Comparison of Zinc at Locations SW 1 and SW 16**

**FIGURE 20**

**60191188**

12d SW Chem Zn Conc SW1 and SW16

# Appendix A

## Groundwater Monitoring Data and Elevation Trends

A1. Monitor Construction Details
A2. Routine Groundwater Elevations
A3. Collection System Elevations (C and D Series Monitors)
A4. Detailed Bedrock and Lower Till Elevations
A5. Detailed Leachate Elevations – Groundwater Elevation Trends (Figures A1 – A6)

## A1: Monitor Construction Details

| Borehole | | Monitor | | | | Monitor Installation Details | | | |
|---|---|---|---|---|---|---|---|---|---|
| Monitor | Diameter (mm) | Type | Diameter (mm) | Stick Up (m) | Elevation (mASL) | Screened Interval (m) | Filter Pack (m) | Sealed Interval (m) | Backfilled Interval (m) |
| 2-I | | P | 32 | 0.66 | 343.75 | 9.8 - 10.4 | - | 0.1 - 0.3<br>- | -<br>- |
| 2-II | | S | 32 | 0.37 | 343.50 | 0.2 - 4.6 | - | 0.1 - 0.2<br>- | -<br>- |
| 3-I | | S | 32 | 0.79 | 344.35 | 0.3 - 6.1 | - | 0.1 - 0.3<br>- | -<br>- |
| 4-IR | | P | 50 | 0.76 | 346.17 | 19.4 - 20.9 | 19.10 - 20.90 | 0.0 - 19.1<br>- | -<br>- |
| 4-II | | P | 32 | 0.54 | 345.90 | 13.6 - 14.0 | - | 11.3 - 12.2<br>- | -<br>- |
| 4-IIR | 203 | P | 51 | 0.82 | 345.93 | 11.9 - 13.7 | 11.90 - 13.70 | 0.0 - 11.9<br>- | -<br>- |
| 4-IIIR | | S | 50 | 0.76 | 345.97 | 1.1 - 4.1 | 0.60 - 4.10 | 0.0 - 0.6<br>- | -<br>- |
| 5-I | | P | 50 | 0.33 | 346.11 | 19.5 - 20.0 | - | 0.0 - 5.2<br>- | -<br>- |
| 5-II | | S | 50 | 0.63 | 346.63 | 1.7 - 7.8 | - | 0.0 - 1.0<br>- | -<br>- |
| 5-III | 96 | P | 51 | 0.76 | 346.96 | 19.8 - 21.3 | 19.78 - 25.02 | 21.3 - 32.5<br>0 - 25.02 | -<br>- |
| 7-I | | P | 50 | 0.56 | 344.53 | 10.2 - 10.7 | - | 9.8 - 10.1<br>- | -<br>- |
| 7-II | | S | 32 | 0.43 | 344.40 | 0.8 - 6.9 | - | 0.0 - 0.5<br>- | -<br>- |
| 8-I | | P | 50 | 0.59 | 344.26 | 9.9 - 10.3 | - | 7.0 - 9.6<br>- | -<br>- |
| 8-II | | S | 32 | 0.54 | 344.21 | 0.3 - 6.4 | - | 0.0 - 0.3<br>- | -<br>- |
| 9A-I | 101 | P | 98 | 0.60 | 344.38 | 25.1 - 25.9 | 25.00 - 25.90 | 23.8 - 25.0<br>- | 0.00 - 23.80<br>- |
| 9-I | 203.2 | P | 49 | 0.35 | 344.02 | 5.5 - 6.8 | 5.38 - 7.97 | 2.0 - 5.4<br>- | 0.35 - 2.03<br>- |
| 9-II | 203.2 | S | 49 | 0.50 | 344.16 | 0.1 - 2.8 | 0.25 - 3.12 | -<br>- | 0.00 - 0.25<br>- |
| 10-I | 203.2 | P | 49 | 0.35 | 343.84 | 4.5 - 5.7 | - | 0.0 - 4.4<br>- | 4.42 - 6.10<br>- |
| 10-II | 203.2 | P | 49 | 0.35 | 343.79 | 3.0 - 3.6 | 2.59 - 3.81 | 0.0 - 2.6<br>- | -<br>- |
| 10-III | 203.2 | S | 49 | 0.41 | 343.82 | 0.3 - 1.5 | 0.25 - 1.78 | -<br>- | 0.00 - 0.25<br>- |
| 11-I | 203.2 | P | 49 | 0.40 | 345.80 | 4.6 - 5.8 | 4.18 - 6.10 | 3.9 - 4.2<br>- | 3.00 - 3.88<br>- |
| 11-II | 203.2 | S | 49 | 0.43 | 345.84 | 0.2 - 2.9 | 0.00 - 3.22 | -<br>- | -<br>- |
| 11-III | 203.2 | P | 51 | 0.74 | 346.56 | 17.0 - 18.5 | 16.55 - 18.52 | 0.0 - 16.6<br>- | -<br>- |
| 12-I | 203.2 | P | 49 | 0.57 | 345.34 | 5.5 - 6.7 | 5.44 - 7.04 | 4.7 - 5.4<br>- | 0.15 - 4.70<br>- |
| 12-II | 203.2 | P | 49 | 0.58 | 345.34 | 3.2 - 3.8 | 3.10 - 3.78 | 1.5 - 3.1<br>- | 0.30 - 1.52<br>- |
| 12-III | 203.2 | S | 49 | 0.55 | 345.43 | 0.9 - 2.1 | 0.30 - 2.29 | 0.0 - 0.3<br>- | -<br>- |
| 13-I | 76 | P | 49 | 0.30 | 344.63 | 24.4 - 25.6 | 23.47 - 25.91 | 0.0 - 23.5<br>- | -<br>- |
| 13-II | 203.2 | P | 49 | 0.48 | 344.81 | 19.5 - 20.1 | 19.00 - 20.09 | 0.0 - 19.0<br>- | -<br>- |
| 13-III | 203.2 | P | 49 | 0.58 | 344.98 | 7.6 - 8.8 | 7.47 - 9.09 | 6.4 - 7.5<br>- | 5.94 - 6.40<br>- |
| 13-IV | 203.2 | P | 49 | 0.55 | 344.84 | 4.1 - 5.3 | 3.96 - 5.59 | 0.3 - 4.0<br>- | -<br>- |
| 13-V | 203.2 | S | 49 | 0.52 | 344.84 | 0.1 - 2.2 | 0.10 - 2.24 | -<br>- | -<br>- |
| 14-I | 203.2 | P | 49 | 0.50 | 344.66 | 7.6 - 8.9 | 7.26 - 9.14 | 0.0 - 7.3<br>- | -<br>- |

Notes: Top of Pipe Elevations for Monitor 37-I and 37-II where fixed on the Table in 2009

## A1: Monitor Construction Details

| Borehole | | Monitor | | | | Monitor Installation Details | | | |
|---|---|---|---|---|---|---|---|---|---|
| Monitor | Diameter (mm) | Type | Diameter (mm) | Stick Up (m) | Elevation (mASL) | Screened Interval (m) | Filter Pack (m) | Sealed Interval (m) | Backfilled Interval (m) |
| 14-II | 203.2 | P | 49 | 0.47 | 344.67 | 4.5 - 5.1 | 4.14 - 5.13 | 0.0 - 4.1 | - |
| 14-III | 203.2 | S | 49 | 0.59 | 344.66 | 0.2 - 2.3 | 0.15 - 2.29 | 0.0 - 0.2 | - |
| 14-IV | 96 | P | 51 | 0.76 | 344.66 | 25.6 - 27.2 | 25.63 - 25.02 | 27.2 - 34.0<br>0 - 25.02 | - |
| 15-I | 76 | P | 49 | 0.40 | 344.43 | 25.9 - 27.1 | 24.99 - 27.43 | 0.0 - 25.0 | - |
| 15-II | 73 | P | 49 | 0.54 | 344.55 | 19.8 - 21.0 | 19.20 - 21.94 | 0.0 - 19.2 | - |
| 15-III | 203.2 | P | 49 | 0.20 | 344.18 | 9.0 - 10.2 | 8.48 - 10.67 | 0.0 - 8.5 | - |
| 15-IV | 203.2 | P | 49 | 0.47 | 344.43 | 5.6 - 6.8 | 5.44 - 7.31 | 0.0 - 5.4 | - |
| 15-V | 203.2 | S | 49 | 0.26 | 344.27 | 0.1 - 2.3 | 0.13 - 2.26 | 0.0 - 0.1 | - |
| 16-I | 203.2 | P | 49 | 0.58 | 344.34 | 13.0 - 15.1 | 12.60 - 15.11 | 0.0 - 12.6 | - |
| 16-II | 203.2 | P | 49 | 0.58 | 344.52 | 7.8 - 8.4 | 7.47 - 8.38 | 6.9 - 7.5 | 3.66 - 6.86 |
| 16-III | 203.2 | P | 49 | 0.47 | 344.38 | 5.8 - 6.4 | 5.18 - 6.40 | 0.0 - 5.2 | - |
| 16-IV | 203.2 | P | 49 | 0.57 | 344.44 | 3.8 - 4.4 | 3.76 - 4.57 | 2.1 - 3.8 | 0.30 - 2.13 |
| 16-V | 203.2 | S | 49 | 0.43 | 344.46 | 0.3 - 2.4 | 0.15 - 2.44 | - | - |
| 16-VI | 203.2 | P | 49 | 0.76 | 344.63 | 17.6 - 19.2 | 17.07 - 19.20 | 0.0 - 17.1 | - |
| 16-VII | 96 | P | 51 | 0.76 | 344.22 | 25.5 - 27.0 | 25.48 - 19.47 | 27.0 - 33.8<br>0 - 19.47 | - |
| 16-VIII | 200 | P | 150 | 0.60 | 344.11 | 40.0 - 54.9 | - | -<br>0 - 40 | - |
| 17-I | 76 | P | 49 | 0.42 | 346.64 | 24.4 - 25.6 | 23.46 - 25.90 | 0.0 - 23.5 | - |
| 17-II | 73 | P | 49 | 0.50 | 346.97 | 18.6 - 19.2 | 17.83 - 19.20 | 0.0 - 17.8 | - |
| 17-III | 203.2 | P | 49 | 0.27 | 346.43 | 5.9 - 7.1 | 5.84 - 7.42 | 2.0 - 5.8 | 0.00 - 2.00 |
| 17-IV | 203.2 | S | 49 | 0.64 | 346.88 | 0.5 - 4.2 | 1.22 - 4.20 | - | 0.00 - 1.22 |
| 18-I | 203.2 | P | 49 | 0.63 | 344.26 | 8.4 - 9.6 | 8.92 - 9.91 | 8.3 - 8.9 | 2.80 - 8.32 |
| 18-II | 203 | P | 49 | 0.46 | 344.10 | 4.5 - 5.7 | 4.37 - 5.97 | 3.6 - 4.4 | 3.00 - 3.60 |
| 18-III | 203.2 | S | 49 | 0.63 | 344.22 | 0.1 - 2.9 | 0.15 - 2.88 | - | - |
| 18-IV | 203.2 | S | 49 | 0.40 | 344.12 | 0.5 - 1.7 | 0.30 - 2.00 | - | - |
| 19-I | 76 | P | 49 | 0.34 | 349.70 | 24.6 - 25.8 | 23.77 - 26.14 | 1.0 - 23.8 | - |
| 19-II | 127 | P | 49 | 0.41 | 349.76 | 19.8 - 21.0 | 19.20 - 21.34 | 5.8 - 19.2 | 0.30 - 5.79 |
| 19-III | 127 | P | 49 | 0.46 | 349.78 | 13.7 - 15.0 | 12.95 - 15.24 | 7.7 - 13.0 | 0.30 - 7.71 |
| 19-IV | 127 | S | 49 | 0.46 | 349.76 | 6.1 - 8.9 | 2.68 - 9.14 | 0.0 - 0.3 | 0.30 - 2.68 |
| 20-I | 76 | P | 49 | 0.45 | 345.71 | 17.6 - 18.8 | 16.77 - 19.13 | 0.0 - 16.8 | - |
| 20-II | 191 | P | 49 | 0.56 | 345.70 | 13.9 - 15.1 | 13.72 - 15.39 | 0.0 - 12.8 | 12.80 - 13.72 |
| 20-III | 203.2 | P | 49 | 0.54 | 345.73 | 9.5 - 10.7 | 9.60 - 10.97 | 0.0 - 9.6 | - |
| 20-IV | 127 | S | 49 | 0.57 | 345.76 | 0.0 - 4.3 | 0.30 - 4.57 | 0.0 - 0.3 | - |

Notes: Top of Pipe Elevations for Monitor 37-I and 37-II where fixed on the Table in 2009

## A1: Monitor Construction Details

| Borehole | | Monitor | | | | Monitor Installation Details | | | |
|---|---|---|---|---|---|---|---|---|---|
| Monitor | Diameter (mm) | Type | Diameter (mm) | Stick Up (m) | Elevation (mASL) | Screened Interval (m) | Filter Pack (m) | Sealed Interval (m) | Backfilled Interval (m) |
| 21-I | 175 | P | 50 | 0.40 | 348.59 | 11.0 - 12.5 | 10.90 - 12.50 | 8.5 - 10.9<br>0.2 - 7 | 7.00 - 8.50<br>- |
| 21-II | 175 | P | 50 | 0.40 | 348.60 | 7.0 - 8.5 | - | 4.0 - 6.4<br>- | 6.40 - 9.00<br>0.15 - 4 |
| 21-III | 175 | S | 50 | 0.50 | 348.66 | 0.2 - 4.8 | 0.20 - 4.80 | -<br>- | -<br>- |
| 22-I | 175 | P | 50 | 0.50 | 345.75 | 7.9 - 9.4 | 7.70 - 9.40 | 6.6 - 7.7<br>- | 0.00 - 6.60<br>- |
| 22-II | 175 | S | 50 | 0.30 | 345.52 | 0.6 - 5.3 | 0.20 - 5.30 | -<br>- | -<br>- |
| 23-I | 175 | P | 50 | 0.60 | 345.74 | 8.5 - 10.0 | 8.40 - 10.00 | 5.0 - 8.4<br>- | 0.30 - 5.00<br>- |
| 23-II | 175 | S | 50 | 0.60 | 345.73 | 3.2 - 4.7 | 0.60 - 5.00 | 0.0 - 0.6<br>- | 5.40 - 9.60<br>- |
| 26-I | 38 | S | 25 | 0.92 | 344.00 | 0.8 - 2.3 | - | -<br>- | 0.00 - 2.28<br>- |
| 26-II | 38 | S | 25 | 0.41 | 344.00 | 0.0 - 1.2 | - | -<br>- | 0.00 - 1.20<br>- |
| 27-I | 38 | S | 25 | 0.87 | 344.39 | 0.8 - 2.4 | - | -<br>- | 0.00 - 2.40<br>- |
| 27-II | 38 | S | 25 | 0.54 | 344.39 | 0.0 - 1.6 | - | -<br>- | 0.00 - 1.60<br>- |
| 28-I | 38 | S | 25 | 0.91 | 343.97 | 0.8 - 2.3 | - | -<br>- | 0.00 - 2.29<br>- |
| 28-II | 38 | S | 25 | 0.32 | 343.97 | 0.0 - 1.2 | - | -<br>- | 0.00 - 1.20<br>- |
| 29-I | 32 | S | 32 | 0.10 | 344.08 | 0.1 - 2.1 | - | -<br>- | 0.00 - 2.10<br>- |
| 30-I | 38 | S | 25 | 0.94 | 346.17 | 0.6 - 2.3 | - | -<br>- | 0.00 - 2.26<br>- |
| 31-I | 38 | S | 25 | 0.91 | 344.65 | 0.6 - 2.3 | - | -<br>- | 0.00 - 2.29<br>- |
| 32-I | 38 | S | 25 | 0.78 | 344.52 | 0.8 - 2.5 | - | -<br>- | 0.00 - 2.50<br>- |
| 33-I | 38 | S | 25 | 0.76 | 344.36 | 0.8 - 2.5 | - | -<br>- | 0.00 - 2.50<br>- |
| 34-I | 38 | S | 25 | 1.07 | 344.53 | 0.6 - 2.2 | - | -<br>- | 0.00 - 2.20<br>- |
| 35-I | 38 | S | 25 | 1.00 | 343.75 | 5.6 - 5.9 | - | -<br>- | 0.00 - 3.90<br>- |
| 35-II | 38 | S | 25 | 1.34 | 344.13 | 0.2 - 1.9 | - | -<br>- | 0.00 - 1.86<br>- |
| 36-I | 101 | P | 50 | 0.90 | 345.98 | 21.9 - 23.4 | 21.20 - 23.40 | 20.0 - 21.2<br>- | 0.00 - 20.00<br>- |
| 37-I | 101 | P | 98 | | 346.41 | 23.0 - 27.5 | - | 0.0 - 23.0<br>- | -<br>- |
| 37-II | 101 | P | 98 | | 346.15 | 24.4 - 33.7 | - | 0.0 - 24.4<br>- | -<br>- |
| 50-I | 203 | P | 51 | 0.90 | 361.89 | 39.8 - 41.2 | 38.60 - 41.90 | 0.0 - 38.6<br>- | -<br>- |
| 53-I | 96 | P | 51 | 0.76 | 344.41 | 21.0 - 22.6 | 20.60 - 22.60 | 0.0 - 20.6<br>- | -<br>- |
| 53-II | 203 | P | 51 | 0.76 | 344.31 | 13.9 - 15.4 | 13.45 - 15.39 | 0.0 - 13.5<br>- | -<br>- |
| 53-IIR | 203 | P | 51 | 1.02 | 344.40 | 13.7 - 15.2 | 13.40 - 15.20 | 0.0 - 13.4<br>- | -<br>- |
| 54-I | 96 | P | 51 | 0.76 | 354.06 | 25.9 - 27.4 | 25.60 - 27.40 | 0.0 - 25.6<br>- | -<br>- |
| 60-I | 203 | P | 51 | 0.76 | 346.74 | 13.3 - 14.8 | 13.00 - 14.83 | 14.8 - 15.4<br>0 - 13 | -<br>- |
| 60-II | 203 | P | 51 | 0.76 | 346.84 | 10.7 - 12.2 | 10.39 - 12.19 | 0.0 - 10.4<br>- | -<br>- |
| 60-III | 203 | S | 51 | 0.76 | 346.79 | 0.6 - 5.2 | 0.30 - 5.18 | 0.0 - 0.3<br>- | -<br>- |

Notes: Top of Pipe Elevations for Monitor 37-I and 37-II where fixed on the Table in 2009

## A1: Monitor Construction Details

| Borehole | | Monitor | | | | Monitor Installation Details | | | |
|---|---|---|---|---|---|---|---|---|---|
| Monitor | Diameter (mm) | Type | Diameter (mm) | Stick Up (m) | Elevation (mASL) | Screened Interval (m) | Filter Pack (m) | Sealed Interval (m) | Backfilled Interval (m) |
| 90-I | 200 | P | 150 | 0.60 | 355.82 | 51.2 - 67.1 | - | -<br>0 - 51.2 | -<br>- |
| 90-II | 96 | P | 51 | 0.76 | 355.46 | 31.4 - 32.9 | 31.42 - 30.81 | 32.9 - 38.6<br>0 - 30.81 | -<br>- |
| 91-I | 96 | P | 51 | 0.76 | 351.16 | 25.5 - 27.0 | 25.47 - 24.86 | 27.0 - 41.6<br>0 - 24.86 | -<br>- |
| 92-I | 96 | P | 51 | 0.83 | 349.56 | 32.0 - 33.5 | 31.98 - 31.37 | 33.5 - 40.5<br>0 - 31.37 | -<br>- |
| 93-I | 203 | P | 51 | 0.80 | 345.99 | 24.2 - 28.7 | 23.47 - 28.73 | 0.0 - 23.5<br>- | -<br>- |
| 94-I | 203 | P | 51 | 0.83 | 345.07 | 20.9 - 25.2 | 20.55 - 25.20 | 0.0 - 20.6<br>- | -<br>- |
| 95-I | 203 | P | 51 | 0.71 | 358.86 | 36.5 - 41.4 | 35.97 - 41.40 | 0.0 - 36.0<br>- | -<br>- |
| C1-I | 203 | P | 51 | 0.84 | 344.78 | 11.3 - 12.8 | 10.52 - 11.73 | 0.0 - 10.4<br>- | 11.73 - 14.15<br>- |
| C1-II | 203 | S | 51 | 0.78 | 344.63 | 0.8 - 3.8 | 0.40 - 3.05 | 0.0 - 0.4<br>- | 3.05 - 4.27<br>- |
| C2-I | 203 | P | 51 | 0.74 | 344.36 | 7.5 - 9.0 | 7.16 - 7.92 | 0.0 - 7.0<br>- | 7.92 - 9.42<br>- |
| C2-II | 203 | S | 51 | 0.72 | 344.37 | 0.9 - 3.7 | 0.76 - 2.44 | 0.0 - 0.8<br>- | 2.44 - 4.27<br>- |
| C3-I | 203 | S | 51 | 0.74 | 344.68 | 1.4 - 4.4 | 0.46 - 3.05 | 0.0 - 0.5<br>- | 3.05 - 5.03<br>- |
| C5-I | 203 | S | 51 | 0.55 | 346.84 | 2.5 - 5.6 | 2.03 - 4.57 | 0.0 - 0.5<br>- | 4.57 - 6.55<br>- |
| C6-I | 203 | P | 51 | 0.73 | 345.65 | 10.0 - 11.5 | 8.89 - 10.67 | 0.0 - 0.3<br>- | 10.67 - 12.77<br>0.3 - 2.52 |
| C6-II | 203 | S | 51 | 0.71 | 345.67 | 1.5 - 4.6 | 0.91 - 3.35 | 0.0 - 0.3<br>- | 3.35 - 4.57<br>0.3 - 0.91 |
| C7-I | 203 | S | 51 | 0.82 | 345.53 | 1.5 - 4.6 | 1.22 - 2.98 | 0.0 - 0.3<br>- | 2.98 - 5.03<br>- |
| C8-I | 203 | S | 51 | 0.80 | 345.82 | 1.4 - 4.4 | 0.91 - 3.05 | 0.8 - 0.9<br>0 - 0.3 | 3.05 - 5.03<br>0.3 - 0.76 |
| C9-I | 203 | P | 51 | 0.74 | 345.03 | 5.8 - 7.3 | 5.18 - 6.10 | 0.0 - 5.2<br>- | 6.10 - 7.90<br>- |
| C9-II | 203 | S | 51 | 0.75 | 345.06 | 1.2 - 4.3 | 0.18 - 3.35 | 0.0 - 0.8<br>- | 3.35 - 4.32<br>- |
| C10-I | 203 | P | 51 | 0.72 | 345.02 | 6.9 - 8.5 | - | 0.0 - 6.1<br>- | 6.10 - 8.76<br>- |
| C10-II | 203 | S | 51 | 0.74 | 344.82 | 1.5 - 4.6 | 1.22 - 3.05 | 0.9 - 1.2<br>0 - 0.22 | 3.05 - 4.57<br>0.22 - 0.91 |
| C11-I | 203 | P | 51 | 0.70 | 344.88 | 5.9 - 7.4 | - | 0.0 - 5.1<br>- | 5.11 - 7.87<br>- |
| C11-II | 203 | S | 51 | 0.75 | 344.94 | 1.2 - 4.3 | 0.76 - 2.74 | 0.0 - 0.8<br>- | 2.74 - 4.27<br>- |
| C12-I | 203 | S | 51 | 0.79 | 345.41 | 1.3 - 4.3 | 0.76 - 3.05 | 0.0 - 0.8<br>- | 3.05 - 5.03<br>- |
| C13-I | 203 | S | 51 | 0.74 | 345.51 | 1.3 - 4.4 | 0.76 - 3.05 | 0.0 - 0.8<br>- | 3.05 - 5.03<br>- |
| C14-I | 203 | S | 51 | 0.76 | 345.97 | 1.1 - 4.1 | 0.61 - 4.10 | 0.0 - 0.6<br>- | -<br>- |
| D1-I | 203 | S | 51 | 0.75 | 345.46 | 1.4 - 4.4 | 0.53 - 3.96 | 0.0 - 0.5<br>- | 3.96 - 5.03<br>- |
| D2-I | 203 | S | 51 | 0.57 | 346.00 | 2.4 - 5.4 | 1.52 - 4.52 | 0.0 - 1.5<br>- | 4.52 - 5.79<br>- |
| D3-I | 203 | S | 51 | 0.72 | 344.62 | 2.3 - 5.4 | 1.52 - 3.51 | 1.2 - 1.5<br>0 - 0.3 | 3.51 - 5.63<br>0.3 - 1.2 |
| D4-I | 203 | S | 51 | 0.76 | 344.65 | 1.2 - 4.3 | 0.91 - 3.05 | 0.0 - 0.9<br>- | 3.05 - 4.57<br>- |
| D5-I | 203 | S | 51 | 0.63 | 345.96 | 1.0 - 4.8 | 0.61 - 4.81 | 0.0 - 0.6<br>- | -<br>- |
| 1-I | | S | 32 | 0.76 | 356.04 | 4.3 - 16.6 | - | 0.9 - 1.2<br>- | -<br>- |

Notes: Top of Pipe Elevations for Monitor 37-I and 37-II where fixed on the Table in 2009

## A1: Monitor Construction Details

| Borehole | | Monitor | | | | Monitor Installation Details | | | |
|---|---|---|---|---|---|---|---|---|---|
| Monitor | Diameter (mm) | Type | Diameter (mm) | Stick Up (m) | Elevation (mASL) | Screened Interval (m) | Filter Pack (m) | Sealed Interval (m) | Backfilled Interval (m) |
| 1-IR | 203 | P | 51 | 0.76 | 370.70 | 28.1 - 29.7 | 27.76 - 30.20 | 0.0 - 27.8<br>- | -<br>- |
| 51-I | 203 | S | 51 | 0.76 | 365.80 | 7.3 - 22.6 | - | 0.0 - 0.9<br>- | 0.90 - 25.55<br>- |
| 51-IR | 203 | S | 51 | 0.76 | 365.19 | 15.9 - 22.0 | 15.29 - 15.90 | 0.0 - 15.3<br>- | -<br>- |
| 51-II | 203 | P | 51 | 0.77 | 365.87 | 23.6 - 26.7 | 27.28 - 23.24 | 10.0 - 23.2<br>0 - 0.3 | 0.30 - 10.00<br>- |
| 52-I | 203 | S | 51 | 0.76 | 362.13 | 8.2 - 20.4 | - | 0.0 - 1.0<br>- | 1.00 - 20.50<br>- |
| 55-I | 203 | P | 51 | 0.76 | 355.06 | 11.2 - 15.8 | 11.00 - 15.80 | 0.0 - 11.0<br>- | 15.80 - 17.06<br>- |
| 56-I | 203 | P | 51 | 0.76 | 354.34 | 12.0 - 18.1 | 11.40 - 18.05 | 0.0 - 11.4<br>- | 18.05 - 18.95<br>- |
| 57-I | 203 | P | 51 | 0.76 | 360.66 | 18.5 - 26.1 | 17.70 - 26.10 | 12.0 - 17.7<br>0 - 0.3 | 26.10 - 27.28<br>0.3 - 12 |
| 58-I | 203 | P | 51 | 0.92 | 360.98 | 20.4 - 18.9 | 20.42 - 18.00 | 18.0 - 17.5<br>- | 20.42 - 21.18<br>0 - 17.45 |
| 59-I | 203 | S | 51 | 0.76 | 362.63 | 10.8 - 20.0 | 11.00 - 19.97 | 0.0 - 0.6<br>- | 19.97 - 20.73<br>0.6 - 11 |
| 61-I | 203 | P | 51 | 0.76 | 365.44 | 23.8 - 25.3 | 23.10 - 35.30 | 25.3 - 26.5<br>0 - 23.1 | -<br>- |
| 61-IR | 203 | P | 51 | 0.52 | 363.59 | 25.1 - 26.7 | 24.70 - 26.70 | 0.0 - 24.7<br>- | -<br>- |
| 62-I | 203 | S | 51 | 0.90 | 361.97 | 8.3 - 15.9 | 8.45 - 15.92 | 0.0 - 1.5<br>- | 1.52 - 8.45<br>- |
| 63-I | 203 | P | 51 | 0.76 | 359.76 | 15.1 - 16.6 | 14.78 - 17.98 | 0.0 - 14.8<br>- | -<br>- |
| 64-I | 203 | S | 51 | 0.76 | 347.66 | 10.3 - 13.4 | 9.75 - 13.39 | 8.8 - 9.8<br>0 - 0.61 | 0.61 - 8.84<br>- |
| 65-I | 203 | S | 51 | 0.76 | 353.41 | 5.7 - 10.3 | 5.44 - 10.26 | 0.0 - 0.9<br>- | 0.91 - 5.40<br>- |
| 66-I | 203 | P | 51 | 0.76 | 362.00 | 14.3 - 19.6 | 13.51 - 19.61 | 12.7 - 13.5<br>- | 0.91 - 12.70<br>- |
| 66-IR | 203 | P | 51 | 0.87 | 368.09 | 19.1 - 20.6 | 18.40 - 20.60 | 0.0 - 18.4<br>- | -<br>- |
| 67-I | 203 | S | 51 | 0.95 | 362.34 | 16.2 - 20.7 | 15.57 - 20.73 | 15.1 - 15.6<br>0 - 0.91 | 0.91 - 15.09<br>- |
| 68-I | 203 | S | 51 | 0.76 | 353.28 | 10.7 - 12.2 | 10.36 - 12.19 | 10.0 - 10.4<br>0.91 - 0 | 0.91 - 9.75<br>- |
| 69-I | 203 | S | 51 | 0.76 | 352.42 | 11.7 - 14.8 | 10.09 - 15.09 | 0.0 - 10.9<br>- | -<br>- |

Notes: Top of Pipe Elevations for Monitor 37-I and 37-II where fixed on the Table in 2009

# A2: Groundwater Elevations - - Eastview Road Landfill Site

| Monitor | 2-I | 2-II | 4-IR | 4-II | 4-IIR | 4-IIIR | 5-II | 5-III | 7-I | 7-II | 8-I | 8-II | 9A-I | 9-I | 9-II | 10-I | 10-II | 10-III | 11-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Outwash | Outwash | Bedrock | Lower Till | Lower Till | Upper Till | Upper Till | Bedrock | Upper Till | Outwash | Upper Till | Upper Till | Bedrock | Outwash | Outwash | Upper Till | Outwash | Outwash | Upper Till |
| Date | | | | | | | | | | | | | | | | | | | |
| 28-Apr-92 | 339.43 | 341.87 | | 342.12 | | | 342.60 | | 343.83 | 343.94 | 343.36 | 344.02 | 341.00 | 342.01 | 341.86 | 342.86 | 342.86 | 342.87 | 343.82 |
| 14-Aug-92 | 341.94 | 342.17 | | 343.65 | | | 345.34 | | 343.85 | 343.95 | 343.19 | 343.95 | 341.12 | 342.29 | 342.11 | 342.99 | 342.86 | 343.02 | 344.16 |
| 10-Nov-92 | 341.88 | 341.87 | | 344.11 | | | 345.37 | | 343.91 | 344.01 | 343.55 | 344.09 | 341.42 | 342.12 | 341.81 | 343.09 | 342.94 | 343.02 | 343.80 |
| 22-Mar-93 | | | | | | | | | | | | | | | | | | | 343.35 |
| 22-Apr-93 | 341.83 | 342.17 | 342.27 | 343.93 | | 345.05 | 345.72 | | 343.92 | 344.07 | 343.48 | 344.04 | 341.49 | 342.12 | 341.88 | 343.05 | 342.84 | 343.05 | 343.89 |
| 25-May-93 | | | 341.94 | | | | | | | | | | | | | | | | |
| 08-Jun-93 | 341.98 | 341.57 | 342.01 | 343.50 | | 344.44 | 344.63 | | 343.75 | 343.83 | 343.08 | 343.66 | 341.28 | 341.62 | 341.46 | 342.84 | 342.70 | 342.94 | 343.43 |
| 23-Aug-93 | 341.65 | 341.42 | 340.80 | 342.61 | | 343.80 | 344.29 | | | | 342.30 | 342.59 | 340.59 | 341.20 | 341.12 | 342.46 | 342.28 | 342.46 | 343.07 |
| 26-Oct-93 | 341.88 | 341.62 | 341.11 | 342.85 | | 344.12 | 344.57 | | | | 342.59 | 343.30 | 340.86 | 341.52 | 341.40 | 342.75 | 342.59 | 342.69 | 343.32 |
| 16-Mar-94 | | | | | | | | | | | | | | | | | | | |
| 20-Apr-94 | 342.06 | 341.85 | 341.83 | 343.64 | | 344.74 | 345.44 | | 343.86 | 343.93 | 343.47 | 344.09 | 341.24 | 342.09 | 341.93 | 343.02 | 342.95 | 343.04 | 344.13 |
| 18-Jun-94 | 341.73 | 341.55 | 341.38 | 343.15 | | 344.25 | 344.64 | | Broken | Broken | 343.04 | 343.81 | 340.87 | 341.56 | 341.40 | 342.64 | 342.46 | 342.63 | 343.31 |
| 24-Aug-94 | 341.33 | 341.28 | 340.63 | 342.30 | | 343.39 | 343.87 | | 343.26 | 343.27 | 342.43 | 342.88 | 340.44 | 341.20 | 341.14 | 342.12 | 341.97 | 342.94 | 343.15 |
| 26-Oct-94 | 341.60 | 341.22 | 340.57 | 341.86 | | 342.28 | 343.20 | | 343.31 | 343.40 | 342.05 | 342.55 | 340.20 | 341.21 | 341.19 | 341.94 | 341.79 | 342.34 | 342.07 |
| 18-Apr-95 | 341.87 | 341.65 | 341.58 | 343.45 | | 344.52 | 344.76 | | 343.86 | 344.00 | 343.14 | 343.89 | 340.94 | 341.76 | 341.59 | 342.76 | 342.61 | 342.91 | 343.50 |
| 16-Jun-95 | 341.78 | 341.59 | 341.46 | 343.26 | | 344.24 | 344.68 | | 343.51 | 343.53 | 343.04 | 343.58 | 340.87 | 341.63 | 341.44 | 342.59 | 342.41 | 342.66 | 343.53 |
| 21-Aug-95 | 341.77 | 341.64 | 341.17 | 343.11 | | 344.29 | 344.49 | | 343.54 | 343.66 | 342.85 | 343.32 | 340.88 | 341.62 | 341.47 | 342.64 | 342.46 | 342.68 | 343.69 |
| 13-Nov-95 | 342.02 | 342.45 | 341.59 | 343.65 | | 344.92 | 345.64 | | | | 343.52 | 344.07 | 341.14 | 342.19 | 341.93 | 341.92 | 342.78 | 342.85 | 344.48 |
| 15-Apr-96 | 341.81 | 341.93 | 341.62 | 343.58 | | 344.79 | 345.68 | | 343.86 | 344.13 | 343.40 | 344.28 | 341.13 | 342.07 | | 342.90 | 342.76 | 343.12 | 343.95 |
| 13-Jun-96 | 341.95 | 341.90 | 342.05 | 343.71 | | 344.75 | 345.53 | | 343.91 | 343.92 | 343.41 | 344.29 | 341.37 | 342.15 | 341.91 | 342.91 | 342.74 | 342.97 | 344.04 |
| 15-Aug-96 | 341.85 | 341.79 | 341.40 | 343.12 | | 344.08 | 344.51 | | 343.40 | 343.60 | 342.70 | 343.30 | 340.99 | 341.77 | 341.63 | 342.49 | 342.44 | 342.43 | 343.22 |
| 12-Nov-96 | 341.96 | 341.80 | 341.82 | 343.63 | | 344.57 | 345.26 | | 343.46 | 343.95 | 343.20 | 343.74 | 341.21 | 341.97 | 341.78 | 342.87 | 342.69 | 342.94 | 343.83 |
| 21-Apr-97 | 341.79 | 341.77 | 342.07 | 343.73 | | 344.43 | 345.23 | | 343.91 | 343.96 | 343.50 | 343.65 | 342.43 | 342.16 | 342.85 | 342.98 | 342.65 | 342.97 | 343.97 |
| 09-Jun-97 | 341.83 | 341.67 | 341.66 | 343.35 | | 344.18 | 344.73 | | 343.70 | 343.50 | 343.08 | 343.64 | 341.24 | 341.77 | 341.52 | 342.68 | 342.54 | 342.77 | 343.54 |
| 18-Aug-97 | 341.71 | 341.64 | 340.87 | 342.47 | | 343.23 | 343.55 | | DRY | 343.36 | 342.05 | 341.90 | 340.60 | 341.35 | 341.18 | 342.14 | 341.97 | 342.37 | 342.91 |
| 10-Nov-97 | 341.97 | 341.89 | 341.20 | 342.67 | | 343.52 | 344.05 | | 343.59 | 343.39 | 342.50 | 343.48 | 340.85 | 341.93 | 341.80 | 342.57 | 342.43 | 342.57 | 343.39 |
| 14-Apr-98 | 341.88 | 341.70 | 341.89 | 343.68 | | 344.36 | 345.28 | | 343.80 | 343.82 | 343.89 | 343.35 | 341.20 | 342.04 | 341.70 | 342.77 | 342.60 | 342.90 | 343.71 |
| 10-Jun-98 | 341.70 | 341.49 | 341.04 | 343.77 | | 343.95 | 344.25 | | 343.53 | 343.44 | 343.75 | 343.40 | 340.73 | 341.47 | 341.26 | 342.33 | 342.18 | 342.49 | 343.14 |
| 10-Aug-98 | 341.47 | 341.34 | 340.58 | 342.55 | | 343.53 | 343.71 | | 342.70 | 343.03 | 342.39 | 342.99 | 340.43 | 341.27 | 341.16 | 342.02 | 341.86 | 342.37 | 342.99 |
| 09-Nov-98 | 341.08 | 341.06 | 340.00 | 341.34 | | 341.46 | 341.99 | | Bent | 342.73 | 340.71 | 341.25 | 339.90 | 340.96 | Dry | 341.34 | 341.20 | Dry | 342.58 |
| 16-Apr-99 | 341.76 | 341.65 | 340.82 | 343.08 | | 344.35 | 344.89 | | 343.86 | 343.70 | 343.22 | 343.95 | 340.72 | 341.86 | 341.68 | 342.84 | 342.68 | 342.86 | 344.00 |
| 23-Jun-99 | 341.63 | 341.50 | 340.52 | 342.60 | | 343.82 | 344.36 | | 343.61 | 343.08 | 342.74 | 343.47 | 340.56 | 341.43 | 341.26 | 342.42 | 342.28 | 342.48 | 343.03 |
| 16-Aug-99 | 341.12 | 341.44 | 340.20 | 343.12 | | 343.08 | 343.89 | | 343.69 | 343.45 | 342.42 | 342.94 | 340.38 | 341.33 | 341.24 | 342.18 | 342.05 | 342.37 | 342.87 |
| 16-Nov-99 | 341.77 | 341.68 | 340.85 | 343.11 | | 344.43 | 345.07 | | 343.79 | 343.81 | 342.99 | 343.65 | 340.75 | 341.84 | 342.02 | 342.78 | 342.65 | 342.78 | 343.65 |
| 12-Apr-00 | 341.92 | 341.80 | 340.67 | 343.22 | | 344.77 | 345.40 | | 343.88 | 343.95 | 343.14 | 343.78 | 340.73 | 341.95 | 341.77 | 342.87 | 342.72 | 342.92 | 343.65 |
| 19-Jun-00 | 342.17 | 342.07 | 341.25 | 343.56 | | 344.70 | 345.64 | | 343.90 | 344.00 | 343.37 | 343.97 | 341.10 | 342.49 | 342.09 | 343.02 | 342.88 | 343.00 | 344.54 |
| 14-Aug-00 | 341.95 | 341.85 | 341.52 | 343.48 | | 344.43 | 344.90 | | 343.79 | 343.82 | 342.91 | 343.03 | 341.12 | 341.92 | 341.72 | 342.94 | 342.80 | 342.98 | 343.98 |
| 06-Nov-00 | 341.62 | 341.53 | 340.48 | 342.37 | | 343.29 | 342.13 | | N/R | 343.59 | 342.06 | 342.08 | 340.52 | 341.48 | 341.39 | 342.20 | 342.07 | 342.41 | 342.87 |
| 02-Apr-01 | 341.95 | 341.85 | 341.10 | 343.48 | | 344.63 | 345.78 | | 343.94 | 344.05 | 343.45 | 344.45 | 341.13 | 342.61 | 342.12 | 342.91 | 342.77 | Frozen | 344.44 |
| 25-Jun-01 | 341.67 | 341.65 | 340.54 | 342.92 | | 344.25 | 344.51 | | 343.67 | 343.69 | 342.51 | 342.80 | 340.70 | 341.63 | 341.48 | 342.62 | 342.48 | 342.67 | 343.48 |
| 13-Aug-01 | 341.33 | 341.33 | 339.79 | 342.00 | | 343.06 | 344.41 | | N/A | 342.95 | 342.02 | 342.24 | 340.20 | 341.18 | 341.15 | 341.93 | 341.81 | 342.10 | 342.85 |
| 05-Nov-01 | 341.85 | 341.73 | 340.83 | 343.13 | | 344.60 | 345.29 | | 343.80 | 343.85 | 342.97 | 343.77 | 340.73 | 341.83 | 341.72 | 342.70 | 342.58 | 342.66 | 343.99 |
| 22-Apr-02 | 342.04 | 341.90 | 341.37 | 343.52 | | 344.46 | 345.47 | | 343.69 | 343.77 | 343.41 | 343.93 | 341.21 | 342.37 | 342.03 | 342.95 | 342.97 | 342.92 | 344.54 |
| 17-Jun-02 | 341.95 | 341.86 | 341.47 | 343.52 | | 344.58 | 345.27 | | 343.88 | 344.00 | 342.85 | 343.35 | 341.18 | 342.12 | 341.90 | 342.75 | 342.62 | 342.80 | 343.74 |
| 12-Aug-02 | 341.39 | 341.34 | 340.43 | 342.43 | | 343.44 | 343.90 | | N/A | 342.92 | 341.98 | 341.69 | 340.49 | 341.24 | 341.19 | 342.01 | 341.90 | 342.26 | 342.90 |
| 04-Nov-02 | 341.75 | 341.31 | 339.99 | 341.84 | | 342.61 | 343.25 | | Destroyed | Destroyed | 341.60 | 344.37 | 340.27 | 341.38 | 341.37 | 342.63 | 341.81 | 342.32 | 343.10 |

**Note: All Water Level in mASL**

# A2: Groundwater Elevations - - Eastview Road Landfill Site

| Monitor | 2-I | 2-II | 4-IR | 4-II | 4-IIR | 4-IIIR | 5-II | 5-III | 7-I | 7-II | 8-I | 8-II | 9A-I | 9-I | 9-II | 10-I | 10-II | 10-III | 11-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Outwash | Outwash | Bedrock | Lower Till | Lower Till | Upper Till | Upper Till | Bedrock | Upper Till | Outwash | Upper Till | Upper Till | Bedrock | Outwash | Outwash | Upper Till | Outwash | Outwash | Upper Till |
| Date | | | | | | | | | | | | | | | | | | | |
| 22-Apr-03 | 341.95 | 341.80 | 341.06 | 343.35 | | 344.54 | 345.48 | | 343.82 | 343.85 | 343.36 | 343.85 | 340.93 | 342.21 | 341.94 | 342.88 | 342.79 | 342.92 | 344.53 |
| 23-Jun-03 | 341.86 | 341.70 | 340.87 | 343.08 | | 344.16 | 344.91 | 345.02 | 343.69 | 343.73 | 342.81 | 343.45 | 340.86 | 341.80 | 341.59 | 342.76 | 342.66 | 342.79 | 343.64 |
| 02-Sep-03 | 341.34 | 341.36 | 340.11 | 342.26 | | 343.41 | 343.77 | 344.56 | N/A | 343.46 | 341.94 | 341.95 | 340.24 | 341.31 | 341.29 | 342.06 | 341.97 | 342.21 | 342.85 |
| 03-Nov-03 | 341.75 | 342.51 | 340.60 | 342.92 | | 344.63 | 344.95 | 344.43 | Destroyed | Destroyed | 342.77 | 344.37 | 340.60 | 341.93 | 341.95 | 342.63 | 342.54 | 342.66 | 343.10 |
| 19-Apr-04 | 342.01 | 342.04 | 341.44 | 343.64 | | 344.69 | 345.68 | 344.31 | N/A | N/A | 343.54 | 344.37 | 341.17 | 342.31 | 342.05 | 342.92 | 342.81 | 342.91 | 344.07 |
| 07-Jun-04 | 341.89 | 341.76 | 341.17 | 343.19 | | 344.23 | 344.64 | 344.29 | N/A | N/A | 342.68 | 342.95 | 340.94 | 341.78 | 341.64 | 342.82 | 342.72 | 342.74 | 343.34 |
| 23-Aug-04 | 341.76 | 341.65 | 340.87 | 342.78 | | 343.88 | 344.11 | 344.24 | N/A | N/A | 342.21 | 342.31 | 340.77 | 341.49 | 341.39 | 342.63 | 342.53 | 342.62 | 343.26 |
| 01-Nov-04 | 341.78 | 341.75 | 340.41 | 342.49 | | 343.62 | 343.92 | 344.21 | Destroyed | Destroyed | 342.30 | 342.70 | 340.69 | 341.73 | 341.73 | 342.48 | 342.38 | 342.56 | 343.15 |
| 11-Apr-05 | 341.95 | 342.00 | 341.55 | 343.63 | | 344.47 | 345.65 | 342.71 | N/A | N/A | 343.62 | 344.15 | 341.27 | 342.38 | 342.12 | 342.95 | 342.86 | 343.00 | 344.83 |
| 21-Jun-05 | 341.82 | 341.73 | 341.15 | 343.13 | | 344.19 | 344.60 | 342.36 | N/A | N/A | 342.63 | 342.90 | 340.91 | 341.81 | 341.68 | 342.66 | 342.56 | 342.74 | 343.50 |
| 31-Aug-05 | 341.48 | 341.52 | 340.63 | 342.20 | | 343.16 | 343.66 | 341.89 | N/A | N/A | N/A | N/A | 340.50 | 341.36 | 341.30 | 342.24 | 342.20 | 342.26 | 343.04 |
| 15-Nov-05 | 341.70 | 341.60 | 340.51 | 342.61 | | 344.49 | 344.24 | 342.17 | N/A | N/A | N/A | N/A | 340.59 | 341.73 | 341.70 | 342.78 | 342.40 | 342.65 | 343.32 |
| 24-Apr-06 | 342.03 | 342.80 | 341.48 | 343.59 | | 344.47 | 345.42 | 342.64 | N/A | N/A | N/A | N/A | 341.03 | 342.05 | 342.09 | 342.74 | 342.66 | 342.68 | 344.17 |
| 07-Jun-06 | 342.03 | 341.90 | 341.43 | 343.50 | | 344.31 | 345.13 | 342.83 | N/A | N/A | N/A | N/A | 341.13 | 341.85 | 341.78 | 342.84 | 342.57 | 342.67 | 343.69 |
| 30-Aug-06 | 341.79 | N/A | 340.81 | 342.80 | | 343.87 | 344.45 | 342.31 | N/A | N/A | N/A | N/A | 340.78 | 341.59 | 341.80 | 342.61 | 342.54 | 342.62 | 343.27 |
| 24-Nov-06 | 342.30 | 342.31 | 341.63 | 343.77 | | 344.68 | 345.63 | 342.83 | N/A | N/A | N/A | N/A | 341.22 | 342.10 | 342.10 | 342.99 | 342.87 | 343.00 | 344.60 |
| 10-Apr-07 | 342.13 | 342.10 | 341.72 | 343.80 | | 344.68 | 345.65 | 342.90 | N/A | N/A | N/A | N/A | 341.23 | 342.03 | 342.02 | 342.96 | 342.88 | 342.97 | 344.87 |
| 18-Jun-07 | 342.01 | 341.78 | 341.14 | | 343.10 | 344.16 | 344.54 | 342.20 | N/A | N/A | N/A | N/A | 340.85 | 341.68 | 341.36 | 342.65 | 342.57 | 342.65 | 343.35 |
| 13-Aug-07 | 341.35 | 341.43 | 340.33 | | 342.01 | 343.51 | 343.21 | 341.42 | N/A | N/A | N/A | N/A | 340.30 | 340.89 | Dry | 341.99 | 341.90 | Dry | 342.65 |
| 15-Nov-07 | 341.23 | 341.18 | 340.12 | | 341.75 | 342.48 | 341.77 | 342.36 | N/A | N/A | N/A | N/A | 340.20 | 341.00 | 341.00 | 341.84 | 341.81 | 341.97 | 342.48 |
| 29-Apr-08 | 342.07 | 341.92 | 341.47 | | 341.68 | 344.31 | 345.27 | 342.78 | N/A | N/A | N/A | N/A | 341.13 | 341.94 | 341.89 | 342.89 | 342.82 | 342.88 | 344.42 |
| 18-Jun-08 | 341.90 | 341.76 | 341.27 | | 343.17 | 344.37 | 344.81 | 342.43 | N/A | N/A | N/A | N/A | 340.95 | 341.72 | 341.70 | 342.66 | 342.62 | 342.76 | 343.11 |
| 11-Sep-08 | 342.01 | 341.94 | 341.13 | | 343.13 | 344.16 | 344.55 | 342.24 | N/A | N/A | N/A | N/A | 340.77 | 341.80 | 341.75 | 342.57 | 342.51 | 342.62 | 343.15 |
| 20-Nov-08 | | | 341.57 | | | | | 342.60 | | | | | | | | | | | |
| 24-Nov-08 | 341.97 | 341.91 | | | 343.59 | 344.58 | 345.35 | | N/A | N/A | N/A | N/A | 340.30 | 341.06 | 341.04 | 341.74 | 341.86 | 341.89 | 344.15 |
| 27-Apr-09 | 342.27 | 342.80 | 341.85 | | 343.85 | 344.73 | 346.05 | 342.77 | | | | | 341.25 | 342.13 | 342.18 | 342.95 | 342.83 | 342.94 | 344.54 |
| 31-May-09 | | | 341.72 | | | | | 342.86 | | | | | | | | | | | |
| 22-Jun-09 | 341.91 | 341.97 | 341.24 | | 343.27 | 344.20 | 344.75 | 342.46 | | | | | 341.05 | 341.83 | 341.86 | 342.67 | 342.67 | 342.82 | 343.14 |
| 20-Aug-09 | 342.10 | 342.65 | | | 342.65 | 343.73 | 344.25 | | | | | | 340.63 | 341.58 | 341.51 | 342.46 | 342.43 | 342.59 | 343.05 |
| 24-Aug-09 | | | 340.67 | | | | | 342.13 | | | | | | | | | | | |
| 10-Nov-09 | 341.87 | 341.70 | 340.51 | | 342.46 | 343.72 | 344.38 | 342.21 | | | | | 340.42 | 341.76 | 341.74 | 342.57 | 342.49 | 342.62 | 342.98 |
| 18-Apr-10 | | | 341.11 | | | | | 342.57 | | | | | | | | | | | |
| 20-May-10 | 342.10 | 341.99 | 341.23 | | 343.40 | 344.43 | 345.23 | 342.62 | | | | | 340.79 | 341.85 | 341.85 | 342.84 | 342.81 | 342.92 | 343.88 |
| 01-Jun-10 | | | 341.21 | | | | | 342.29 | | | | | | | | | | | |
| 01-Aug-10 | | | 341.10 | | | | | 342.27 | | | | | | | | | | | |
| 20-Oct-10 | 342.02 | 341.93 | 340.88 | | 344.09 | 343.37 | 345.07 | 342.67 | | | | | 340.73 | 341.95 | | 342.74 | 342.82 | 342.86 | 343.48 |

**Note: All Water Level in mASL**

# A2: Groundwater Elevations - - Eastview Road Landfill Site

| Monitor | 11-II | 11-III | 12-I | 12-II | 12-III | 13-I | 13-II | 13-III | 13-IV | 13-V | 14-I | 14-II | 14-III | 14-IV | 15-I | 15-II | 15-III | 15-IV | 15-V | 16-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Outwash | Lower Till | Upper Till | Upper Till | Fill | Bedrock | Lower Till | Upper Till | Outwash | Outwash | Upper Till | Outwash | Outwash | Bedrock | Bedrock | Lower Till | Upper Till | Upper Till | Outwash | Lower Till |
| Date | | | | | | | | | | | | | | | | | | | | |
| 28-Apr-92 | 343.92 | | 343.44 | 343.42 | 343.24 | 342.28 | 342.08 | 342.93 | 342.88 | 343.01 | 342.72 | 342.77 | 342.99 | | 342.88 | 342.04 | 341.41 | 342.57 | 342.61 | 341.57 |
| 14-Aug-92 | 344.15 | | 343.49 | 343.44 | 343.33 | 342.38 | 342.34 | 343.05 | 342.96 | 343.29 | 342.86 | 342.89 | 343.28 | | 338.93 | 342.09 | 342.68 | 342.64 | 343.46 | 342.24 |
| 10-Nov-92 | 343.74 | | 343.49 | 343.45 | 343.34 | 342.51 | 342.51 | 343.13 | 343.06 | 343.24 | 342.96 | 342.98 | 343.11 | | 339.04 | 342.28 | 342.70 | 342.71 | 343.27 | 342.39 |
| 22-Mar-93 | 343.28 | | | 343.30 | 343.21 | | | 342.85 | 342.76 | 342.86 | 342.53 | | | | | | 342.09 | | | |
| 22-Apr-93 | 343.83 | | 343.44 | 343.37 | 343.33 | 342.54 | 342.71 | 343.02 | 343.00 | 343.43 | 342.84 | 342.84 | 343.45 | | 339.22 | 342.23 | 342.60 | 342.75 | 343.72 | 342.28 |
| 25-May-93 | | | | | | | | | | | | | | | | | | | | |
| 08-Jun-93 | 343.31 | | 343.35 | 343.38 | 343.28 | 342.43 | 342.75 | 342.96 | 342.86 | 343.01 | 342.67 | 342.72 | 342.61 | | 339.11 | 342.04 | 342.44 | 341.50 | 342.87 | 341.99 |
| 23-Aug-93 | 343.00 | | 343.19 | 343.19 | 343.14 | 341.64 | 342.70 | 342.63 | 342.49 | 342.91 | 341.73 | 342.35 | 342.32 | | 338.20 | 341.77 | 342.20 | 342.22 | 342.53 | 341.66 |
| 26-Oct-93 | 343.27 | 341.93 | 342.91 | 342.89 | 342.82 | 341.98 | 341.01 | 342.90 | 342.80 | 342.90 | 342.54 | 342.63 | 342.41 | | 338.44 | 341.74 | 342.23 | 342.38 | 342.38 | 341.84 |
| 16-Mar-94 | | 343.40 | | | | | | | | | | | | | | | | | | |
| 20-Apr-94 | 344.10 | 343.85 | 343.40 | 343.39 | 343.30 | 342.42 | 340.53 | 343.07 | 342.92 | 343.13 | 342.82 | 342.90 | 343.05 | | 338.69 | 342.10 | 342.60 | 342.68 | 343.20 | 341.64 |
| 18-Jun-94 | 343.37 | 343.52 | 343.27 | 343.24 | 343.20 | 342.12 | 337.18 | 342.78 | 342.65 | 342.97 | 342.41 | 342.47 | 342.36 | | 338.21 | 342.13 | 342.28 | 342.36 | 342.77 | 341.72 |
| 24-Aug-94 | 342.92 | 343.20 | 342.72 | 342.64 | 342.70 | 341.51 | 334.74 | 342.13 | 342.04 | 342.65 | 341.94 | 341.97 | DRY | | 337.60 | 341.48 | 341.96 | 341.97 | 342.30 | 341.27 |
| 26-Oct-94 | 342.63 | 343.49 | 342.42 | 342.38 | DRY | 341.16 | 334.37 | 341.93 | 341.82 | DRY | 341.74 | 341.79 | DRY | | 337.56 | 341.15 | 341.81 | 341.82 | DRY | 341.15 |
| 18-Apr-95 | 343.42 | 343.49 | 343.43 | 343.33 | 343.26 | 342.21 | 340.68 | 342.89 | 342.78 | 342.99 | 342.57 | 342.10 | 342.77 | | 338.31 | 341.67 | 342.38 | 342.46 | 342.94 | 341.74 |
| 16-Jun-95 | 343.39 | 343.37 | 343.16 | 343.10 | 343.06 | 342.06 | 335.94 | 342.65 | 342.55 | 343.00 | 342.38 | 342.41 | 342.54 | | 338.03 | 341.59 | 342.29 | 342.31 | 342.85 | 341.56 |
| 21-Aug-95 | 343.66 | 343.66 | 343.16 | 343.15 | 343.13 | 341.97 | 334.79 | 342.73 | 342.65 | 342.94 | 342.50 | 342.53 | 342.54 | | 337.73 | 341.66 | 342.36 | 342.39 | 343.02 | 341.64 |
| 13-Nov-95 | 344.51 | 343.56 | 343.49 | 343.42 | 343.35 | 342.15 | 336.33 | 343.03 | 342.94 | 343.34 | 342.80 | 342.84 | 343.51 | | 338.34 | 341.95 | 342.59 | 342.57 | 343.45 | 342.12 |
| 15-Apr-96 | 343.96 | 343.81 | 343.52 | 343.38 | 343.28 | 342.28 | 340.34 | 343.01 | 342.92 | 343.80 | 342.71 | 342.73 | 343.48 | | 338.34 | 341.89 | 342.58 | 342.61 | 343.53 | 342.02 |
| 13-Jun-96 | 344.00 | 344.02 | 343.53 | 343.39 | 343.42 | 342.44 | 334.38 | 343.00 | 342.93 | 343.90 | 342.69 | 342.74 | 343.53 | | 339.00 | 341.95 | 342.56 | 342.61 | 343.49 | 342.11 |
| 15-Aug-96 | 343.16 | 343.96 | 343.11 | 343.02 | 343.03 | 342.09 | 334.04 | 342.60 | 342.48 | 342.95 | 342.28 | 342.33 | 342.36 | | 338.51 | 338.63 | 342.24 | 342.26 | 342.72 | 341.70 |
| 12-Nov-96 | 343.77 | 343.84 | 343.48 | 343.39 | 343.33 | 342.45 | 336.30 | 343.01 | 342.89 | 343.29 | 342.66 | 342.69 | 343.18 | | 338.75 | 341.85 | 342.53 | 342.58 | 343.26 | 341.95 |
| 21-Apr-97 | 343.88 | 344.29 | 343.46 | 343.33 | 343.29 | 342.66 | 339.60 | 343.03 | 342.89 | 343.08 | 342.61 | 342.67 | 342.93 | | 339.04 | 341.93 | 342.42 | 342.58 | 343.18 | 342.04 |
| 09-Jun-97 | 343.43 | 343.98 | 343.31 | 343.21 | 343.21 | 342.43 | 332.55 | 342.94 | 342.70 | 343.06 | 342.46 | 342.49 | 342.60 | | 338.74 | 341.73 | 342.38 | 342.41 | 342.90 | 341.81 |
| 18-Aug-97 | 342.76 | 343.22 | 342.52 | 342.40 | DRY | 341.47 | 334.55 | 341.92 | 342.11 | 342.50 | 341.86 | 341.93 | DRY | | 337.72 | 341.29 | 341.98 | 342.18 | 342.03 | 341.41 |
| 10-Nov-97 | 343.28 | 343.38 | 342.09 | 342.98 | 343.00 | 341.89 | 335.71 | 342.79 | 342.62 | 342.61 | 342.40 | 342.48 | 342.30 | | 338.25 | 341.61 | 342.36 | 342.39 | 342.54 | 341.69 |
| 14-Apr-98 | 343.60 | 343.89 | 343.45 | 343.32 | 343.24 | 342.50 | 339.32 | 342.99 | 342.79 | 343.05 | 342.51 | 342.55 | 342.79 | | 338.72 | 341.77 | 342.44 | 342.49 | 343.03 | 341.86 |
| 10-Jun-98 | 343.01 | 343.41 | 342.78 | 342.67 | 342.70 | 341.91 | 334.01 | 342.59 | 342.29 | 342.80 | 342.06 | 342.09 | 342.14 | | 337.81 | 341.35 | 342.10 | 342.09 | 342.48 | 341.43 |
| 10-Aug-98 | 342.84 | 343.15 | 342.37 | 342.24 | Dry | 341.42 | 337.85 | 341.93 | 341.96 | 342.56 | 341.76 | 341.78 | Dry | | 337.36 | 341.18 | 340.91 | 341.91 | 342.14 | 341.23 |
| 09-Nov-98 | 342.41 | 342.64 | 341.36 | 341.24 | | 340.69 | 335.45 | 341.26 | 341.23 | Dry | 341.12 | 341.15 | Dry | | 337.31 | 340.62 | 341.24 | 341.23 | Dry | 340.82 |
| 16-Apr-99 | 343.91 | 343.42 | 343.39 | 343.31 | 343.23 | 341.98 | 340.31 | 342.95 | 342.87 | 342.98 | 342.53 | 342.58 | 342.76 | | 337.83 | 341.65 | 342.39 | 342.44 | 342.95 | 341.77 |
| 23-Jun-99 | 343.01 | 342.67 | 342.81 | 342.78 | 343.02 | 341.71 | 335.34 | 342.62 | 342.48 | 342.89 | 342.33 | 342.32 | 342.28 | | 337.98 | 341.55 | 342.16 | 342.18 | 342.51 | 341.48 |
| 16-Aug-99 | 342.86 | 342.47 | 342.68 | 342.74 | 342.77 | 341.49 | 338.16 | 342.39 | 342.22 | 342.70 | 342.10 | 342.09 | 342.04 | | 337.72 | 341.42 | 342.05 | 342.06 | 342.24 | 341.39 |
| 16-Nov-99 | 343.67 | 342.95 | 343.38 | 343.38 | 343.45 | 341.97 | 335.97 | 343.03 | 342.93 | 343.02 | 342.75 | 342.76 | 342.98 | | 338.06 | 341.79 | 342.45 | 342.51 | 343.09 | 341.77 |
| 12-Apr-00 | 343.67 | 342.97 | 343.54 | 343.57 | 343.61 | 341.00 | 340.68 | 343.08 | 342.98 | 343.32 | 342.76 | 342.77 | 342.95 | | 336.70 | 341.87 | 342.53 | 342.61 | 343.29 | 341.93 |
| 19-Jun-00 | 344.64 | 343.44 | 343.63 | 343.62 | 343.65 | 342.30 | 334.88 | 343.27 | 343.17 | 344.28 | 343.00 | 343.01 | 343.62 | | 338.57 | 342.01 | 342.65 | 342.71 | 343.43 | 342.06 |
| 14-Aug-00 | 344.00 | 343.46 | 343.57 | 343.56 | 343.54 | 342.35 | 338.19 | 343.16 | 343.09 | 343.95 | 342.89 | 342.90 | 343.34 | | 338.83 | 342.17 | 342.59 | 342.64 | 343.18 | 342.00 |
| 06-Nov-00 | 342.86 | 342.74 | 342.78 | 342.82 | 342.90 | 341.69 | 336.33 | 342.31 | 342.20 | 342.66 | 342.12 | 342.11 | 342.14 | | 337.71 | 341.49 | 342.13 | 342.14 | 342.35 | 341.48 |
| 02-Apr-01 | 344.52 | 343.51 | 343.64 | 343.63 | 343.63 | 342.15 | 340.85 | 343.13 | 343.02 | 343.82 | 342.83 | 342.82 | 343.18 | | 338.16 | 342.09 | 342.70 | 342.73 | 343.36 | 342.19 |
| 25-Jun-01 | 343.50 | 343.22 | 343.20 | 343.22 | 343.24 | 341.95 | 336.25 | 342.86 | 342.72 | 343.14 | 342.54 | 342.53 | 342.64 | | 337.69 | 341.74 | 342.37 | 342.41 | 342.82 | 341.72 |
| 13-Aug-01 | 342.85 | 342.61 | 342.33 | 342.35 | 342.81 | 341.11 | 338.70 | 342.00 | 341.89 | 342.70 | 341.83 | 341.82 | Dry | | 337.07 | 341.26 | 341.81 | 341.82 | 342.19 | 341.32 |
| 05-Nov-01 | 344.04 | 343.07 | 343.56 | 343.57 | 343.50 | 341.83 | 335.86 | 342.96 | 342.85 | 343.01 | 342.67 | 342.68 | 342.99 | | 338.02 | 341.85 | 342.52 | 342.57 | 343.17 | 341.82 |
| 22-Apr-02 | 344.63 | 343.58 | 343.54 | 343.66 | 342.20 | 342.38 | 343.08 | 343.38 | 343.56 | 343.32 | 343.44 | 342.98 | 343.03 | | 338.60 | 342.09 | 342.71 | 342.75 | 343.29 | 342.11 |
| 17-Jun-02 | 343.75 | 343.54 | 343.61 | 343.60 | 343.45 | 342.34 | 334.42 | 342.95 | 342.81 | 343.12 | 342.62 | 342.61 | 342.66 | | 338.67 | 342.06 | 342.59 | 342.63 | 343.14 | 341.99 |
| 12-Aug-02 | 342.88 | 342.87 | 342.54 | 342.56 | 342.83 | 341.49 | 338.23 | 342.14 | 342.00 | 342.76 | 341.92 | 341.89 | Dry | | 337.68 | 341.29 | 341.85 | 341.85 | 342.22 | 341.34 |
| 04-Nov-02 | 343.10 | 342.48 | 342.46 | 342.45 | N/R | 341.10 | 334.83 | 342.00 | 341.86 | Dry | 342.52 | 341.74 | Dry | | 337.36 | 341.27 | 342.57 | 342.62 | 343.30 | 341.22 |

**Note: All Water Level in mASL**

# A2: Groundwater Elevations - - Eastview Road Landfill Site

| Monitor | 11-II | 11-III | 12-I | 12-II | 12-III | 13-I | 13-II | 13-III | 13-IV | 13-V | 14-I | 14-II | 14-III | 14-IV | 15-I | 15-II | 15-III | 15-IV | 15-V | 16-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Outwash | Lower Till | Upper Till | Upper Till | Fill | Bedrock | Lower Till | Upper Till | Outwash | Outwash | Upper Till | Outwash | Outwash | Bedrock | Bedrock | Lower Till | Upper Till | Upper Till | Outwash | Lower Till |
| Date | | | | | | | | | | | | | | | | | | | | |
| 22-Apr-03 | 344.63 | 343.18 | 343.60 | 343.54 | 343.52 | 342.09 | 340.87 | 343.08 | 342.98 | 343.37 | 342.77 | 342.75 | 342.13 | | 338.34 | 341.97 | 342.53 | 342.58 | 343.08 | 342.02 |
| 23-Jun-03 | 343.64 | 343.14 | 343.38 | 343.37 | 343.36 | 342.16 | 335.23 | 342.98 | 342.86 | 343.00 | 342.65 | 342.63 | 342.72 | 339.32 | 338.16 | 341.80 | 342.39 | 343.44 | Dry | 341.78 |
| 02-Sep-03 | 342.84 | 342.52 | N/A | N/A | N/A | 341.24 | 339.10 | 342.35 | 342.18 | 342.65 | 341.94 | 341.91 | Dry | 336.07 | 337.11 | 341.26 | 341.80 | 341.81 | 342.10 | 341.34 |
| 03-Nov-03 | 343.10 | 342.54 | 343.58 | 343.58 | 343.62 | 341.65 | 334.83 | 342.92 | 342.80 | 343.30 | 342.52 | 342.50 | 342.32 | 336.59 | 337.79 | 341.81 | 342.57 | 342.62 | 343.30 | 341.81 |
| 19-Apr-04 | 344.08 | 343.64 | 343.66 | 343.65 | 343.65 | 342.27 | 341.20 | 343.18 | 342.98 | 343.31 | 342.82 | 342.80 | 342.89 | 337.56 | 338.47 | 342.05 | 342.65 | 342.70 | 343.26 | 342.03 |
| 07-Jun-04 | 343.43 | 343.35 | 343.55 | 343.52 | 343.49 | 342.12 | 337.44 | 343.07 | 342.98 | 343.17 | 342.80 | 342.79 | 342.64 | 337.66 | 338.45 | 341.90 | 342.60 | 342.65 | 343.31 | 341.79 |
| 23-Aug-04 | 343.24 | 343.16 | 343.11 | 343.10 | 343.11 | 341.84 | 339.50 | 342.86 | 342.75 | 342.99 | 342.57 | 342.64 | 342.53 | 337.91 | 338.23 | 341.73 | 342.35 | 342.39 | 342.78 | 341.67 |
| 01-Nov-04 | 343.13 | 342.85 | 343.17 | 343.17 | 343.19 | 341.73 | 335.94 | 342.70 | 342.56 | 342.71 | 342.35 | 342.34 | 342.30 | 337.74 | 337.84 | 341.82 | 342.35 | 342.38 | 342.45 | 341.66 |
| 11-Apr-05 | 344.95 | 343.89 | 343.59 | 343.60 | 343.57 | 341.27 | 341.44 | 343.15 | 343.04 | 343.89 | 342.82 | 342.81 | 343.11 | 338.36 | 338.56 | 342.08 | 342.61 | 342.65 | 343.14 | 342.19 |
| 21-Jun-05 | 343.55 | 343.26 | 343.17 | 343.21 | 343.22 | 342.04 | 336.74 | 342.88 | 342.73 | 343.02 | 342.50 | 342.49 | 342.43 | 338.16 | 337.73 | 341.77 | 342.34 | 342.39 | 342.62 | 341.73 |
| 31-Aug-05 | 343.04 | 342.76 | 342.73 | 342.69 | Dry | 341.49 | 339.93 | 342.52 | 342.38 | 342.48 | 342.18 | 342.12 | Dry | 337.65 | 337.51 | 341.53 | 342.11 | 342.13 | 341.97 | 341.41 |
| 15-Nov-05 | 343.33 | 342.77 | 343.23 | 343.20 | 343.23 | 341.65 | 341.58 | 342.82 | 342.69 | 342.75 | 342.61 | 342.42 | 342.23 | 337.50 | 337.48 | 341.61 | 342.28 | 342.50 | 342.99 | 341.69 |
| 24-Apr-06 | 344.10 | 343.61 | 343.56 | 343.65 | 343.64 | 342.31 | 341.25 | 343.05 | 342.99 | 343.25 | 342.75 | 342.73 | 342.97 | 338.49 | 338.53 | 341.46 | 342.54 | 342.59 | 343.15 | 342.01 |
| 07-Jun-06 | 343.97 | 343.56 | 343.60 | 343.58 | 343.55 | 342.24 | 333.91 | 342.91 | 342.81 | 343.06 | 342.74 | 342.58 | 342.59 | 338.95 | 338.58 | 341.97 | 343.15 | 342.61 | 343.16 | 341.97 |
| 30-Aug-06 | 343.30 | 343.13 | 343.14 | 343.15 | 343.16 | 341.88 | 339.40 | 342.83 | 342.73 | 343.06 | 342.55 | 342.53 | 342.48 | 338.46 | 338.16 | 341.72 | 342.34 | 342.37 | 342.68 | 341.65 |
| 24-Nov-06 | 344.78 | 343.61 | 343.68 | 343.64 | 343.61 | 342.37 | 337.81 | 343.15 | 343.11 | 344.23 | 342.86 | 342.85 | 343.84 | 338.61 | 338.41 | 342.11 | 342.67 | 342.74 | 343.29 | 342.13 |
| 10-Apr-07 | 345.01 | 343.94 | 343.76 | 343.68 | 343.64 | 342.42 | 341.63 | 343.17 | 343.06 | 344.11 | 342.87 | 343.37 | 342.82 | 338.60 | 338.51 | 342.09 | 342.68 | 342.75 | 343.39 | 342.07 |
| 18-Jun-07 | 343.04 | 343.31 | 343.46 | 343.41 | 343.38 | 342.16 | 336.35 | 342.90 | 342.75 | 343.03 | 342.57 | 342.55 | 342.55 | 338.24 | 338.20 | 341.71 | 342.36 | 342.45 | 342.83 | 341.89 |
| 13-Aug-07 | Dry | 342.63 | 342.45 | 342.43 | Dry | 341.35 | 339.22 | 342.24 | 342.09 | 342.38 | 341.85 | 341.82 | Dry | 337.63 | 337.59 | 341.21 | 341.73 | 341.73 | 341.95 | 341.26 |
| 15-Nov-07 | Dry | 342.29 | 342.76 | 342.76 | Dry | 341.29 | 337.28 | 342.09 | 341.90 | Dry | 341.71 | 341.67 | Dry | 337.63 | 337.62 | 341.27 | 340.80 | 341.75 | 341.99 | 341.18 |
| 29-Apr-08 | 344.54 | 343.98 | 343.64 | 343.63 | 343.64 | 342.25 | 341.63 | 343.28 | 343.07 | 343.43 | 342.77 | 342.74 | 342.81 | 338.39 | 338.63 | 342.00 | 342.55 | 342.59 | 343.08 | 341.93 |
| 18-Jun-08 | 342.17 | 343.54 | 343.20 | 343.20 | 343.22 | 342.14 | 335.39 | 342.89 | 342.77 | 343.11 | 342.52 | 342.52 | 342.54 | 338.13 | 338.49 | 341.82 | 342.41 | 342.01 | 342.61 | 341.81 |
| 11-Sep-08 | 343.19 | 343.15 | 343.17 | 343.16 | 343.17 | 341.94 | 339.78 | 342.78 | 342.63 | 342.99 | 342.45 | 342.41 | 342.45 | 338.16 | 338.21 | 341.83 | 342.49 | 342.51 | 342.51 | 341.79 |
| 20-Nov-08 | | 343.45 | | | | 342.05 | | | | | | | | 338.23 | 338.32 | | | | | |
| 24-Nov-08 | 344.23 | | 342.44 | 342.70 | 342.92 | | 337.59 | 342.67 | 342.92 | 343.25 | 342.64 | 342.65 | 342.87 | | | 341.95 | 342.50 | 342.55 | 343.03 | 341.90 |
| 27-Apr-09 | 344.76 | 343.85 | 343.66 | 342.72 | 343.73 | 342.40 | 341.60 | 343.25 | 343.05 | 343.99 | 342.84 | 342.78 | 342.59 | 338.16 | 338.67 | 342.02 | 342.65 | 342.71 | 343.25 | 342.06 |
| 31-May-09 | | | | | | | | | | | | | | | | | | | | |
| 22-Jun-09 | 344.50 | 343.91 | 343.12 | 343.27 | 343.22 | 342.24 | 341.56 | 343.02 | 342.85 | 343.01 | 342.69 | 342.72 | 342.58 | 338.10 | 338.35 | 341.83 | 342.39 | 342.51 | 342.72 | 341.80 |
| 20-Aug-09 | 342.98 | | 342.99 | 342.91 | 343.02 | | 340.14 | 342.64 | 342.53 | 342.98 | 342.26 | 342.23 | 342.55 | | | 341.63 | 342.25 | 342.26 | 342.28 | 341.62 |
| 24-Aug-09 | | 343.03 | | | | 341.85 | | | | | | | | 337.66 | 337.90 | | | | | |
| 10-Nov-09 | 343.06 | 342.81 | 342.99 | 342.91 | 343.02 | 341.55 | 337.23 | 342.66 | 342.55 | 343.04 | 342.45 | 342.53 | 342.71 | 336.66 | 337.64 | 341.71 | 342.35 | 342.38 | 342.39 | 341.69 |
| 18-Apr-10 | | 343.94 | | | | 341.99 | | | | | | | | 338.09 | 338.40 | | | | | |
| 20-May-10 | 344.01 | 343.38 | 343.08 | 342.81 | 343.14 | 341.97 | 341.43 | 343.10 | 342.92 | 343.63 | 342.72 | 342.71 | 342.96 | 337.31 | 338.25 | 341.91 | 342.47 | 342.51 | 342.97 | 341.90 |
| 01-Jun-10 | | 343.10 | | | | 342.08 | | | | | | | | 338.07 | 338.09 | | | | | |
| 01-Aug-10 | | 343.08 | | | | 342.09 | | | | | | | | 337.95 | 337.72 | | | | | |
| 20-Oct-10 | 343.88 | 342.99 | 343.08 | 342.81 | 343.14 | 341.78 | 342.05 | 343.00 | 342.90 | 343.24 | 342.68 | 342.63 | 341.87 | 338.16 | 338.17 | 341.91 | 342.47 | 342.51 | 343.00 | 341.80 |

**Note: All Water Level in mASL**

# A2: Groundwater Elevations - - Eastview Road Landfill Site

| Monitor | 16-II | 16-III | 16-IV | 16-V | 16-VI | 16-VII | 16-VIII | 17-I | 17-II | 17-III | 17-IV | 18-I | 18-II | 18-III | 18-IV | 19-I | 19-II | 19-III | 19-IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Lower Till | Upper Till | Upper Till | Fill | Lower Till | Bedrock | Lower Bedrock | Bedrock | Lower Till | Upper Till | Outwash | Upper Till | Outwash | Outwash | Fill/ Outwash | Bedrock | Lower Till | Upper Till | Upper Till |
| Date | | | | | | | | | | | | | | | | | | | |
| 28-Apr-92 | 342.39 | 342.54 | 342.07 | 342.57 | | | | 340.94 | 342.78 | 342.98 | 343.40 | 342.06 | 341.99 | 341.87 | 341.92 | 342.10 | 342.22 | 345.54 | 347.36 |
| 14-Aug-92 | 342.28 | 342.38 | 342.28 | 342.91 | | | | 340.89 | 342.75 | 342.83 | 343.17 | 342.36 | 342.28 | 342.01 | 342.04 | 342.40 | 342.41 | 345.28 | 346.64 |
| 10-Nov-92 | 342.29 | 342.30 | 342.19 | 342.76 | | | | 341.07 | 342.96 | 343.23 | 343.83 | 342.22 | 342.12 | 341.99 | 342.02 | 342.68 | 342.73 | 346.13 | 348.11 |
| 22-Mar-93 | | 341.74 | | | | | | | | 343.60 | | | | | | | | 344.67 | |
| 22-Apr-93 | 342.13 | 342.32 | 342.20 | 343.21 | | | | 341.27 | 343.04 | 343.32 | 344.13 | 342.16 | 342.13 | 342.11 | 342.13 | 342.62 | 342.61 | 346.11 | 348.53 |
| 25-May-93 | | | | | | | | | | | | | | | | | | | |
| 08-Jun-93 | 341.94 | 342.04 | 341.89 | 342.06 | | | | 340.89 | 342.62 | 342.97 | 343.07 | 341.67 | 341.50 | 341.46 | 341.45 | 342.30 | 341.50 | 344.99 | 346.46 |
| 23-Aug-93 | 341.71 | 341.78 | 341.68 | 341.81 | 341.76 | | | 340.37 | 342.09 | 342.21 | 342.50 | 341.27 | 341.21 | 341.03 | 340.50 | 341.42 | 341.50 | 343.91 | 344.83 |
| 26-Oct-93 | 341.89 | 341.96 | 341.87 | 341.94 | 341.91 | | | 340.47 | 342.26 | 342.23 | | 341.57 | 341.50 | 341.35 | 341.62 | 341.72 | 341.84 | 343.83 | 344.61 |
| 16-Mar-94 | | | | | | | | | | | | | | | | | | | |
| 20-Apr-94 | 342.16 | 342.22 | 342.05 | 342.90 | 342.37 | | | 340.85 | 342.99 | 343.28 | 344.06 | 342.28 | 342.17 | 342.04 | 342.06 | 342.46 | 342.51 | 345.98 | 348.19 |
| 18-Jun-94 | 341.77 | 341.94 | 341.91 | 341.99 | 341.73 | | | 340.69 | 342.55 | 342.76 | 343.16 | 341.65 | 341.56 | 341.36 | DRY | 341.88 | 341.89 | 344.67 | 346.16 |
| 24-Aug-94 | 341.47 | 341.56 | 341.52 | DRY | 341.33 | | | 340.18 | 342.05 | 342.18 | DRY | 341.25 | 341.18 | 341.18 | DRY | 341.31 | 341.33 | 343.74 | 344.64 |
| 26-Oct-94 | 341.31 | 341.50 | 341.43 | DRY | 341.25 | | | 339.90 | 341.75 | 341.81 | DRY | 341.27 | 341.20 | 341.17 | DRY | 340.75 | 340.76 | 342.65 | 343.14 |
| 18-Apr-95 | 341.82 | 341.99 | 341.85 | 342.25 | 341.86 | | | 340.80 | 342.70 | 342.93 | 343.40 | 341.84 | 341.76 | 341.75 | 341.76 | 342.12 | 342.14 | 345.40 | 347.44 |
| 16-Jun-95 | 341.73 | 341.90 | 341.79 | 341.96 | 341.73 | | | 340.69 | 342.62 | 343.91 | 343.39 | 341.70 | 341.62 | 341.33 | DRY | 341.99 | 342.06 | 344.98 | 346.70 |
| 21-Aug-95 | 341.86 | 342.00 | 341.87 | 342.18 | 341.75 | | | 340.66 | 342.52 | 342.64 | 342.94 | 341.71 | 341.60 | 341.48 | 341.64 | 341.86 | 341.86 | 344.51 | 345.64 |
| 13-Nov-95 | 342.19 | 342.33 | 342.14 | 343.04 | 342.21 | | | 341.07 | 342.73 | 342.81 | 344.05 | 342.32 | 342.25 | 342.04 | 341.62 | 342.07 | 342.06 | 345.15 | 347.00 |
| 15-Apr-96 | 342.10 | 342.25 | 341.87 | 342.96 | 342.13 | | | 340.96 | 342.97 | 343.30 | 344.06 | 342.15 | 342.08 | 342.02 | 342.05 | 342.30 | 342.37 | 344.88 | 347.85 |
| 13-Jun-96 | 342.07 | 342.24 | 342.08 | 342.95 | 342.21 | | | 341.03 | 342.89 | 343.08 | 343.43 | 342.18 | 342.16 | 342.02 | 342.08 | 342.47 | 342.45 | 345.54 | 347.49 |
| 15-Aug-96 | 341.76 | 341.87 | 341.74 | 341.88 | 341.78 | | | 340.46 | 342.60 | 342.58 | 342.83 | 341.80 | 341.75 | 341.55 | DRY | 341.96 | 342.05 | 344.60 | 345.82 |
| 12-Nov-96 | 342.10 | 342.23 | 342.07 | 342.79 | 342.06 | | | 340.96 | 342.77 | 342.88 | 343.13 | 342.13 | 342.05 | 341.98 | 342.02 | 340.40 | 341.22 | 345.48 | 347.39 |
| 21-Apr-97 | 342.02 | 342.16 | 341.99 | 342.78 | 342.16 | | | 341.07 | 342.92 | 343.20 | 343.64 | 342.30 | 342.20 | 342.16 | 341.90 | 340.90 | 341.64 | 345.74 | 347.91 |
| 09-Jun-97 | 341.85 | 341.97 | 341.82 | 342.14 | 341.91 | | | 340.83 | 342.63 | 342.89 | 343.31 | 341.87 | 341.76 | 341.51 | 341.72 | 340.53 | 341.15 | 344.91 | 346.90 |
| 18-Aug-97 | 341.55 | 341.74 | 341.62 | 341.65 | 341.50 | | | 340.11 | 341.98 | 342.12 | 342.35 | 341.44 | 341.29 | 341.10 | DRY | 339.69 | 340.23 | 343.23 | 344.16 |
| 10-Nov-97 | 341.81 | 342.03 | 341.86 | 341.91 | 341.78 | | | 340.49 | 342.25 | 342.15 | Dry | 341.97 | 341.90 | 341.91 | 341.97 | 340.26 | 340.73 | 343.23 | 343.76 |
| 14-Apr-98 | 341.97 | 342.12 | 341.94 | 342.47 | 341.98 | | | 340.84 | 342.79 | 343.10 | 343.63 | 342.15 | 342.04 | 341.91 | 341.98 | 341.01 | 341.69 | 345.50 | 347.57 |
| 10-Jun-98 | 341.59 | 341.76 | 341.64 | 341.74 | 341.88 | | | 340.39 | 342.15 | 342.43 | 342.79 | 341.54 | 342.03 | 341.23 | 342.05 | 339.98 | 340.67 | 344.07 | 345.28 |
| 10-Aug-98 | 341.43 | 341.60 | 341.50 | 341.56 | 341.31 | | | 340.12 | 341.97 | 342.12 | 342.38 | 341.32 | 341.23 | 341.12 | Dry | 339.30 | 340.08 | 343.08 | 343.88 |
| 09-Nov-98 | 340.88 | 341.05 | 341.02 | Dry | 340.89 | | | 339.48 | 341.29 | 341.51 | Dry | 340.98 | 340.97 | 340.90 | Dry | 338.72 | 339.26 | 341.40 | 341.76 |
| 16-Apr-99 | 341.96 | 342.13 | 342.24 | 342.26 | 341.87 | | | 340.69 | 342.75 | 343.04 | 343.53 | 341.97 | 341.90 | 341.70 | 341.80 | 340.33 | 341.00 | 344.36 | 345.34 |
| 23-Jun-99 | 341.78 | 341.83 | 341.82 | 342.18 | 341.50 | | | 340.45 | 342.27 | 342.57 | 342.95 | 341.54 | 341.45 | 341.16 | Dry | 339.83 | 340.65 | 343.90 | 344.87 |
| 16-Aug-99 | 341.71 | 341.75 | 341.77 | 341.79 | 341.35 | | | 340.30 | 342.07 | 342.27 | 342.61 | 341.41 | 341.35 | 342.16 | 341.60 | 339.80 | 340.35 | 343.29 | 344.09 |
| 16-Nov-99 | 342.07 | 342.14 | 342.09 | 342.36 | 341.74 | | | 340.72 | 342.73 | 342.84 | 343.18 | 341.92 | 341.88 | 341.66 | 341.72 | 340.69 | 341.10 | 344.08 | 344.90 |
| 12-Apr-00 | 342.18 | 342.26 | 342.20 | 342.46 | 341.89 | | | 340.70 | 342.86 | 343.11 | 343.53 | 342.05 | 341.99 | 342.01 | 341.98 | 340.87 | 341.48 | 345.65 | 347.80 |
| 19-Jun-00 | 342.40 | 342.39 | 342.32 | 342.55 | 342.06 | | | 340.98 | 343.07 | 343.46 | 344.18 | 342.65 | 342.57 | 342.09 | 342.07 | 341.20 | 341.85 | 345.96 | 348.14 |
| 14-Aug-00 | 342.31 | 342.29 | 342.27 | 342.49 | 342.00 | | | 340.91 | 342.82 | 343.02 | 343.35 | 342.10 | 342.00 | 341.86 | 341.89 | 340.97 | 341.67 | 345.20 | 346.72 |
| 06-Nov-00 | 341.72 | 341.80 | 341.81 | 341.81 | 341.46 | | | 340.33 | 342.10 | 342.16 | 342.41 | 341.54 | 341.50 | 341.40 | 341.59 | 340.12 | 340.69 | 343.49 | 344.28 |
| 02-Apr-01 | 342.45 | 342.45 | 342.34 | 342.67 | 342.15 | | | 340.95 | 343.07 | 343.45 | 344.24 | 342.73 | 342.68 | 342.10 | 342.10 | 341.28 | 341.88 | 346.08 | 348.39 |
| 25-Jun-01 | 341.93 | 341.96 | 341.93 | 341.98 | 341.69 | | | 340.48 | 342.35 | 342.63 | 343.00 | 341.70 | 341.64 | 341.38 | 341.66 | 340.67 | 341.25 | 344.46 | 345.63 |
| 13-Aug-01 | 341.50 | 341.52 | 341.51 | Dry | 341.28 | | | 339.84 | 341.88 | 342.13 | 342.46 | 341.22 | 341.20 | 341.03 | N/A | 339.54 | 340.21 | 343.05 | 343.86 |
| 05-Nov-01 | 342.23 | 342.28 | 342.22 | 342.52 | 341.79 | | | 340.47 | 342.51 | 342.52 | 342.72 | 341.78 | 341.70 | 341.67 | 341.70 | 340.71 | 341.11 | 343.74 | 344.34 |
| 22-Apr-02 | 342.44 | 342.46 | 342.36 | 342.68 | 342.12 | | | 341.02 | 343.07 | 343.44 | 344.09 | 342.49 | 342.35 | 342.03 | 342.04 | 341.46 | 341.99 | 345.77 | 347.89 |
| 17-Jun-02 | 342.24 | 342.32 | 342.25 | 342.48 | 341.99 | | | 341.02 | 342.80 | 342.98 | 343.33 | 342.15 | 342.15 | 342.00 | 342.00 | 341.38 | 341.84 | 345.14 | 346.70 |
| 12-Aug-02 | 341.63 | 341.65 | 341.65 | Dry | 341.31 | | | 340.16 | 341.89 | 342.20 | 342.57 | 341.26 | 341.24 | 341.06 | N/A | 340.29 | 340.76 | 343.51 | 344.36 |
| 04-Nov-02 | 342.13 | 341.58 | 342.23 | Dry | 341.20 | | | 340.11 | 342.37 | 342.24 | N/R | 341.41 | 341.95 | 341.87 | N/R | 339.98 | 340.38 | 342.48 | 342.91 |

**Note: All Water Level in mASL**

# A2: Groundwater Elevations - - Eastview Road Landfill Site

| Monitor | 16-II | 16-III | 16-IV | 16-V | 16-VI | 16-VII | 16-VIII | 17-I | 17-II | 17-III | 17-IV | 18-I | 18-II | 18-III | 18-IV | 19-I | 19-II | 19-III | 19-IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Lower Till | Upper Till | Upper Till | Fill | Lower Till | Bedrock | Lower Bedrock | Bedrock | Lower Till | Upper Till | Outwash | Upper Till | Outwash | Outwash | Fill/ Outwash | Bedrock | Lower Till | Upper Till | Upper Till |
| Date | | | | | | | | | | | | | | | | | | | |
| 22-Apr-03 | 342.35 | 342.34 | 342.26 | 342.62 | 342.02 | | | 340.90 | 342.96 | 343.37 | 344.07 | 342.30 | 342.24 | 342.01 | 342.04 | 341.20 | 341.61 | 344.48 | 345.40 |
| 23-Jun-03 | 342.09 | 342.10 | 342.05 | 342.26 | 341.77 | 338.63 | | 340.75 | 342.66 | 343.20 | 343.49 | 341.90 | 341.81 | 341.48 | 341.59 | 340.74 | 341.42 | 344.60 | 345.87 |
| 02-Sep-03 | 341.59 | 341.65 | 341.65 | Dry | 341.30 | 337.42 | 313.51 | 340.08 | 341.81 | 342.06 | 342.40 | 341.32 | 341.32 | 341.17 | Dry | 340.31 | 340.72 | 343.36 | 344.14 |
| 03-Nov-03 | 342.13 | 342.30 | 342.23 | 342.51 | 341.77 | 339.45 | 316.43 | 340.58 | 342.37 | 342.24 | Dry | 341.86 | 341.95 | 341.87 | 341.99 | 340.92 | 341.24 | 344.52 | 344.46 |
| 19-Apr-04 | 342.30 | 342.32 | 342.24 | 342.48 | 342.03 | 339.66 | 317.47 | 341.04 | 343.02 | 343.28 | 343.77 | 342.35 | 342.35 | 342.06 | 342.07 | 341.68 | 342.08 | 345.93 | 348.09 |
| 07-Jun-04 | 342.02 | 342.04 | 342.01 | 342.06 | 341.77 | 339.60 | 317.81 | 340.68 | 342.46 | 342.71 | 343.03 | 341.81 | 341.79 | 341.54 | Dry | 341.21 | 341.56 | 344.55 | 345.75 |
| 23-Aug-04 | 341.91 | 341.92 | 341.90 | 341.93 | 341.64 | 339.65 | 317.95 | 340.41 | 342.11 | 342.19 | 342.52 | 341.52 | 341.49 | 341.27 | 341.58 | 340.80 | 341.12 | 343.71 | 344.48 |
| 01-Nov-04 | 341.91 | 341.93 | 341.91 | 341.91 | 341.62 | 339.23 | 316.18 | 340.47 | 342.15 | 342.07 | Dry | 341.69 | 341.73 | 341.61 | 341.60 | 340.66 | 340.97 | 343.24 | 343.83 |
| 11-Apr-05 | 342.55 | 342.52 | 342.40 | 342.84 | 342.19 | 339.17 | 317.05 | 341.11 | 343.18 | 343.50 | 344.17 | 342.49 | 342.42 | 342.07 | 342.09 | 341.67 | 342.08 | 345.98 | 347.25 |
| 21-Jun-05 | 341.97 | 341.96 | 341.93 | 342.03 | 341.70 | 339.58 | 317.05 | 340.60 | 342.41 | 342.63 | 342.98 | 341.85 | 341.81 | 341.54 | 341.59 | 341.25 | 341.54 | 344.45 | 345.57 |
| 31-Aug-05 | 341.73 | 341.80 | 341.70 | 341.73 | 341.47 | 338.99 | 314.96 | 340.34 | 341.88 | 342.00 | Dry | 341.39 | 341.35 | 341.18 | 341.70 | 340.51 | 340.73 | 342.93 | 343.46 |
| 15-Nov-05 | 341.97 | 341.99 | 341.95 | 341.96 | 341.64 | 339.37 | 314.57 | 340.45 | 342.15 | 341.95 | Dry | 341.76 | 341.71 | 341.61 | Dry | 340.86 | 341.13 | 343.27 | 343.74 |
| 24-Apr-06 | 342.28 | 342.27 | 342.08 | 342.28 | 341.97 | 339.95 | 316.81 | 340.85 | 342.87 | 343.18 | 343.70 | 341.99 | 342.03 | 342.02 | 342.02 | 341.84 | 342.11 | 345.97 | 348.24 |
| 07-Jun-06 | 342.22 | 342.21 | 342.15 | 342.32 | 341.98 | 340.07 | 316.98 | 340.86 | 342.79 | 343.05 | 343.50 | 341.90 | 341.85 | 341.67 | 341.74 | 341.56 | 341.99 | 345.33 | 346.88 |
| 30-Aug-06 | N/A | 342.00 | N/A | 342.07 | 342.10 | 339.70 | 316.39 | 340.47 | 342.31 | 342.43 | 342.66 | 341.59 | 341.54 | 341.37 | 341.62 | 340.96 | 341.24 | 343.73 | 344.42 |
| 24-Nov-06 | 342.51 | 342.47 | 342.39 | 342.52 | 342.12 | 340.13 | 317.13 | 340.81 | 343.10 | 343.46 | 344.19 | 342.17 | 342.10 | 342.06 | 342.09 | 341.93 | 342.23 | 345.77 | 347.58 |
| 10-Apr-07 | 342.36 | 342.43 | 342.39 | 342.61 | 342.07 | 340.28 | 317.49 | 340.98 | 343.10 | 343.44 | 344.17 | 342.07 | 342.03 | 342.02 | 342.04 | 341.96 | 342.27 | 346.00 | 348.24 |
| 18-Jun-07 | 342.95 | 342.14 | 342.35 | 342.01 | 341.61 | 340.10 | 316.81 | 340.54 | 342.40 | 342.63 | 343.09 | 341.56 | 341.47 | 341.23 | 341.62 | 341.11 | 341.50 | 344.46 | 345.70 |
| 13-Aug-07 | 341.34 | 341.53 | 341.55 | Dry | 341.08 | 339.67 | 315.81 | 340.93 | 341.76 | 341.97 | Dry | 340.93 | 340.87 | Dry | Dry | 340.01 | 340.44 | 342.78 | 343.39 |
| 15-Nov-07 | 341.49 | 341.52 | 341.53 | Dry | 341.12 | 339.69 | 316.47 | 340.22 | 341.48 | 341.54 | 342.45 | 340.99 | 340.98 | 340.90 | Dry | 340.06 | 340.23 | 341.97 | 342.28 |
| 29-Apr-08 | 342.20 | 342.21 | 342.16 | 342.37 | 341.97 | 340.26 | 317.58 | 340.90 | 342.97 | 343.22 | 343.71 | 341.99 | 341.94 | 341.95 | 341.96 | 341.90 | 342.16 | 345.57 | 347.45 |
| 18-Jun-08 | 342.15 | 342.05 | 342.01 | 342.06 | 341.83 | 340.24 | 317.21 | 340.47 | 342.66 | 342.84 | 343.18 | 341.76 | 341.75 | 341.61 | Dry | 341.54 | 341.99 | 344.66 | 346.91 |
| 11-Sep-08 | 342.05 | 342.18 | 341.99 | 342.09 | 341.77 | 339.80 | 316.08 | 340.69 | 342.54 | 342.70 | 342.99 | 341.82 | 341.79 | 341.60 | 341.59 | 341.38 | 341.53 | 344.22 | 345.22 |
| 20-Nov-08 | | | | | 341.87 | 340.02 | 316.84 | | | | | | | | | 341.86 | | | |
| 24-Nov-08 | 342.23 | 342.24 | 342.15 | 342.37 | | | | 340.90 | 342.87 | 343.02 | 343.71 | 342.00 | 341.94 | 341.94 | 341.96 | | 342.11 | 345.00 | 346.27 |
| 27-Apr-09 | 342.38 | 342.38 | 342.28 | 342.45 | 342.06 | 340.37 | 316.90 | 341.11 | 343.25 | 343.56 | 344.25 | 342.17 | 342.13 | 342.08 | 342.11 | 342.01 | 342.51 | 346.26 | 348.50 |
| 31-May-09 | | | | | | | | | | | | | | | | | | | |
| 22-Jun-09 | 342.07 | 342.08 | 342.04 | 342.10 | 341.80 | 339.99 | 314.58 | 342.37 | 341.02 | 343.25 | 343.16 | 341.76 | 341.55 | 341.55 | 341.64 | 341.53 | 342.29 | 344.73 | 345.90 |
| 20-Aug-09 | 341.95 | 341.96 | 341.93 | 341.91 | | | | 340.45 | 342.47 | 342.37 | 342.59 | 341.61 | 341.52 | 341.31 | 341.59 | | 341.35 | 343.78 | 344.50 |
| 24-Aug-09 | | | | | 341.53 | 337.98 | 314.26 | | | | | | | | | 340.70 | | | |
| 10-Nov-09 | 341.98 | 342.02 | 342.10 | 341.98 | 341.67 | 339.64 | 313.67 | 340.48 | 340.74 | 342.27 | 342.19 | 341.78 | 341.78 | 341.66 | 341.67 | 341.06 | 341.31 | 343.49 | 344.54 |
| 18-Apr-10 | | | | | 341.85 | 339.89 | 316.62 | | | | | | | | | 341.66 | | | |
| 20-May-10 | 342.16 | 342.18 | 342.09 | 342.32 | 341.89 | 340.04 | 314.25 | 340.73 | 341.22 | 343.06 | 343.35 | 341.96 | 341.90 | 341.88 | 341.15 | 341.89 | 341.98 | 345.06 | 346.61 |
| 01-Jun-10 | | | | | 341.79 | 340.04 | 314.25 | | | | | | | | | 341.30 | | | |
| 01-Aug-10 | | | | | 341.78 | 339.92 | 314.27 | | | | | | | | | 341.38 | | | |
| 20-Oct-10 | 342.16 | 342.16 | 342.07 | 342.16 | 341.82 | 339.65 | 316.20 | 339.97 | 342.57 | 342.52 | 342.53 | 341.96 | 341.30 | 342.01 | 341.98 | 341.45 | 341.60 | 343.93 | 344.52 |

**Note: All Water Level in mASL**

# A2: Groundwater Elevations - - Eastview Road Landfill Site

| Monitor | 20-I | 20-II | 20-III | 20-IV | 21-I | 21-II | 21-III | 26-I | 26-II | 27-I | 27-II | 28-I | 28-II | 29-I | 30-I | 31-I | 32-I | 33-I | 34-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Bedrock | Lower Till | Upper Till | Upper Till | Upper Till | Upper Till | Upper Till | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash |
| Date | | | | | | | | | | | | | | | | | | | |
| 28-Apr-92 | 341.99 | 341.95 | 341.83 | 341.64 | 344.23 | 344.52 | 344.19 | 342.63 | 343.06 | 343.09 | 343.40 | 342.04 | 343.51 | 343.49 | 344.94 | 343.63 | 343.53 | 343.59 | 342.06 |
| 14-Aug-92 | 342.73 | 342.75 | 342.90 | 344.35 | 345.86 | 346.15 | 347.31 | 342.64 | 343.12 | 343.27 | 343.52 | 342.22 | 343.02 | 343.62 | 345.05 | 343.61 | 343.71 | 343.62 | 342.22 |
| 10-Nov-92 | 343.11 | 343.73 | 343.79 | 345.12 | 346.51 | 346.97 | 347.91 | 342.62 | 343.15 | 343.24 | 343.54 | 342.07 | 342.99 | 343.60 | 345.09 | 343.69 | 343.58 | 343.70 | 342.71 |
| 22-Mar-93 | | | 340.63 | | 345.41 | 344.82 | | 342.38 | | 342.91 | | 341.81 | | | | | | | 342.00 |
| 22-Apr-93 | 342.89 | 342.90 | 342.09 | 344.63 | 346.52 | 347.10 | 347.75 | 342.69 | 343.02 | 343.27 | 343.54 | 341.85 | 343.09 | 343.78 | 345.20 | 343.67 | 343.61 | 343.57 | 342.11 |
| 25-May-93 | | | | | | | | | | | | | | | | | | | |
| 08-Jun-93 | 342.16 | 342.70 | 342.80 | 344.46 | 345.92 | 346.42 | 347.20 | 342.54 | 343.05 | 343.12 | 343.36 | 341.96 | 342.40 | 343.59 | 345.02 | 343.64 | 343.58 | 343.55 | 342.04 |
| 23-Aug-93 | 341.99 | 342.00 | 341.74 | 341.80 | 345.18 | 345.30 | 344.89 | 341.72 | DRY | 342.37 | dry | 341.65 | 342.39 | | 344.61 | 343.22 | 343.23 | 343.17 | 341.70 |
| 26-Oct-93 | 342.30 | 342.31 | 343.60 | 344.93 | 345.01 | 345.50 | 346.21 | 342.08 | DRY | 342.85 | dry | 341.69 | dry | 343.50 | 344.82 | 343.45 | 343.38 | 343.34 | 341.80 |
| 16-Mar-94 | | | | | | | | | | | | | | | | | | | |
| 20-Apr-94 | 342.84 | 342.87 | 344.22 | 344.95 | 346.81 | 346.96 | 347.67 | 342.73 | 343.27 | 343.33 | 343.62 | 342.26 | 343.14 | 343.78 | 345.15 | 343.68 | 343.78 | 343.71 | 342.41 |
| 18-Jun-94 | 342.17 | 342.19 | 343.57 | 344.33 | 345.74 | 346.36 | 346.79 | 342.63 | 342.96 | 343.26 | 343.28 | 341.98 | 342.62 | 343.46 | 344.91 | 343.53 | 343.56 | 343.39 | 342.35 |
| 24-Aug-94 | 341.69 | 341.70 | 341.63 | 340.81 | 344.52 | 345.08 | 346.06 | 341.85 | 342.37 | 341.53 | 343.71 | 341.84 | 342.45 | 343.35 | 344.66 | 343.17 | 343.17 | 343.22 | 341.74 |
| 26-Oct-94 | 340.91 | 340.93 | 340.92 | DRY | 343.76 | 344.25 | 344.54 | 342.04 | 342.34 | 342.41 | 342.56 | 341.79 | 342.46 | 343.47 | 344.45 | 342.98 | 342.94 | 343.02 | 341.59 |
| 18-Apr-95 | 342.36 | 342.38 | 343.77 | 344.50 | 345.43 | 346.08 | 346.70 | 342.67 | 343.07 | 343.13 | 343.41 | 342.09 | 342.95 | Damaged | 344.91 | 343.67 | 343.61 | 343.60 | 342.10 |
| 16-Jun-95 | 342.46 | 342.47 | 343.67 | 343.94 | 345.65 | 346.38 | 347.43 | 342.47 | 342.92 | 342.96 | 343.24 | 342.06 | 342.88 | Damaged | 344.89 | 343.52 | 343.53 | 343.40 | 342.04 |
| 21-Aug-95 | 342.27 | 342.30 | 343.82 | 344.19 | 345.01 | 345.65 | 345.72 | 342.49 | 342.91 | 342.97 | 343.48 | 342.12 | 342.84 | Damaged | 344.80 | 343.38 | 343.41 | 343.48 | 342.06 |
| 13-Nov-95 | 342.32 | 343.33 | 343.60 | 345.04 | 344.93 | 345.55 | 346.53 | 342.78 | 343.15 | 343.37 | 343.59 | 342.42 | 343.09 | Damaged | 344.92 | | 343.62 | 343.66 | 342.13 |
| 15-Apr-96 | 342.63 | 342.67 | 344.22 | 344.99 | 346.31 | 347.16 | 347.57 | 342.60 | 343.15 | 343.62 | 343.35 | 342.15 | 343.22 | Damaged | 344.93 | 343.70 | 343.91 | 343.65 | 342.02 |
| 13-Jun-96 | 342.82 | 343.98 | 342.86 | 344.99 | 346.44 | 347.33 | 347.76 | 342.78 | 342.85 | 343.18 | 343.40 | 342.14 | 343.11 | Damaged | 345.22 | 343.73 | 343.34 | 343.35 | 342.13 |
| 15-Aug-96 | 342.41 | 342.43 | 343.65 | 343.77 | 345.37 | 346.30 | 346.20 | 342.18 | 343.16 | 342.83 | 343.17 | 341.73 | | Damaged | 344.86 | 343.35 | 343.30 | 343.16 | 341.97 |
| 12-Nov-96 | 342.42 | 342.45 | 344.28 | 344.91 | 345.52 | 346.28 | 347.01 | 342.76 | | 343.25 | 343.56 | 341.95 | 343.02 | Damaged | 345.12 | 343.45 | 343.66 | 343.64 | 341.97 |
| 21-Apr-97 | 342.86 | 342.87 | 344.40 | 344.89 | 346.78 | 348.12 | 347.68 | 342.69 | 343.35 | 343.26 | 343.56 | 341.83 | 343.06 | Damaged | 345.16 | 343.52 | 343.58 | 343.71 | 342.19 |
| 09-Jun-97 | 342.37 | 342.37 | 343.65 | 343.80 | 345.98 | 347.70 | 347.37 | 342.63 | 342.85 | 343.09 | 343.36 | 341.78 | 342.94 | Damaged | 345.07 | 343.52 | 343.25 | 343.14 | 342.01 |
| 18-Aug-97 | 341.21 | 341.27 | 340.75 | 342.87 | 343.92 | 344.37 | 344.04 | DRY | 342.75 | 342.33 | 342.92 | 341.61 | 342.47 | | 344.64 | 343.01 | 342.51 | 342.49 | 342.44 |
| 10-Nov-97 | 341.65 | 341.66 | 344.78 | 343.56 | 343.78 | 344.98 | 344.23 | 342.35 | 342.75 | 342.88 | 343.16 | 342.18 | 342.52 | | 344.86 | 343.43 | 343.21 | 343.34 | 341.81 |
| 14-Apr-98 | 342.60 | 342.66 | 344.22 | 344.86 | 346.27 | 347.73 | 347.49 | 342.68 | 343.13 | 343.12 | 343.45 | 341.78 | 343.01 | | 344.99 | 343.65 | 343.55 | 343.66 | 341.84 |
| 10-Jun-98 | 341.74 | 341.78 | 342.53 | 342.91 | 344.65 | 345.82 | 345.36 | 342.11 | 342.59 | 342.40 | 343.12 | 341.67 | 342.57 | | 344.36 | 343.34 | 343.05 | 342.79 | 341.67 |
| 10-Aug-98 | 341.16 | 341.16 | 341.35 | 341.60 | 343.61 | 344.26 | 343.77 | 342.09 | 342.94 | 342.66 | 342.85 | 341.85 | 342.49 | | 344.70 | 343.12 | 343.28 | 342.63 | 342.77 |
| 09-Nov-98 | 340.21 | 340.21 | 338.61 | Dry | 342.50 | Dry | Dry | 341.83 | 342.17 | 342.15 | Dry | 342.10 | Dry | | 342.64 | 342.71 | 342.80 | 342.31 | 342.52 |
| 16-Apr-99 | 341.89 | 341.90 | 343.60 | 344.56 | 344.66 | 346.73 | 346.27 | 343.08 | 343.15 | 343.34 | 343.36 | 342.38 | 343.06 | | 343.71 | 343.68 | 343.35 | 343.69 | 341.79 |
| 23-Jun-99 | 341.70 | 341.71 | 343.16 | 344.04 | 345.03 | 345.52 | 345.24 | Damaged | 342.66 | 342.97 | 343.46 | 342.25 | 342.68 | | 343.45 | 342.95 | 342.74 | 342.46 | 342.49 |
| 16-Aug-99 | 341.26 | 341.26 | 342.30 | 342.95 | 344.36 | 344.36 | 344.23 | Damage | 343.16 | 342.50 | Dry | 341.99 | 342.58 | | 342.86 | Dry | 342.62 | 342.79 | 341.60 |
| 16-Nov-99 | 341.96 | 344.11 | 342.06 | 345.31 | 344.96 | 346.59 | 346.31 | Dry | 342.68 | 343.01 | Dry | 342.15 | 342.78 | | 343.32 | 343.41 | 343.07 | 343.11 | 341.85 |
| 12-Apr-00 | 342.33 | 342.34 | 344.35 | 345.39 | 346.30 | 347.83 | 347.69 | 343.16 | Dry | 343.61 | Dry | 343.00 | 343.04 | | 343.86 | 343.64 | 343.67 | 343.79 | 341.93 |
| 19-Jun-00 | 342.68 | 342.70 | 344.42 | 345.39 | 347.08 | 347.87 | 347.80 | 343.20 | N/A | 343.63 | 343.63 | 342.99 | 343.19 | | 343.96 | 343.73 | 343.80 | 343.68 | 341.92 |
| 14-Aug-00 | 342.64 | 342.63 | 344.39 | 344.94 | 346.27 | 347.23 | 347.02 | Damaged | | 343.42 | 343.67 | 342.85 | 343.03 | | 343.87 | 343.63Dry | 343.67 | 343.65 | 342.04 |
| 06-Nov-00 | 341.49 | 341.55 | 342.29 | 342.51 | 344.49 | 344.51 | 344.37 | Dry | Dry | 342.41 | Dry | 342.23 | Dry | | 343.39 | 343.24 | 343.13 | 343.24 | 341.58 |
| 02-Apr-01 | 342.72 | 342.75 | 344.50 | Frozen | 347.35 | 347.90 | 347.83 | N/A | Dry | 343.60 | 343.23 | 343.10 | 343.15 | | 343.96 | 343.68 | 343.74 | 343.63 | N/A |
| 25-Jun-01 | 342.11 | 342.12 | 343.75 | 344.15 | 345.59 | 346.24 | 345.98 | N/A | N/A | 343.06 | 343.54 | 342.08 | 342.64 | | 343.63 | 343.19 | 343.48 | 343.52 | 341.80 |
| 13-Aug-01 | 341.15 | 341.16 | 341.76 | 341.91 | 344.06 | N/A | 343.87 | N/A | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A |
| 05-Nov-01 | 341.82 | 341.84 | 343.24 | 345.31 | 344.86 | 347.44 | 346.74 | N/A | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A |
| 22-Apr-02 | 342.79 | 342.83 | 344.55 | 345.05 | 347.31 | 347.73 | 347.74 | 343.06 | N/A | 343.48 | 343.66 | 342.97 | 343.00 | | 343.85 | 343.64 | N/A | N/A | N/A |
| 17-Jun-02 | 342.62 | 342.62 | 344.47 | 345.33 | 346.55 | 347.72 | 347.55 | 343.15 | N/A | 343.57 | 343.69 | 343.03 | 343.04 | | 343.91 | 343.54 | 343.72 | 343.67 | 341.90 |
| 12-Aug-02 | 341.59 | 341.60 | 342.95 | 342.74 | 344.59 | 344.78 | 344.50 | Dry | Dry | Dry | 343.65 | Dry | Dry | | Dry | Dry | Dry | 343.07 | Dry |
| 04-Nov-02 | 341.07 | 341.11 | 344.14 | 345.27 | 344.68 | 344.40 | 345.48 | 342.98 | Dry | 343.03 | Dry | Dry | Dry | | 343.55 | 343.51 | 342.77 | 343.27 | 342.23 |

**Note: All Water Level in mASL**

# A2: Groundwater Elevations - - Eastview Road Landfill Site

| Monitor | 20-I | 20-II | 20-III | 20-IV | 21-I | 21-II | 21-III | 26-I | 26-II | 27-I | 27-II | 28-I | 28-II | 29-I | 30-I | 31-I | 32-I | 33-I | 34-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Bedrock | Lower Till | Upper Till | Upper Till | Upper Till | Upper Till | Upper Till | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash | Outwash |
| Date | | | | | | | | | | | | | | | | | | | |
| 22-Apr-03 | 342.30 | 342.28 | 344.19 | 345.13 | 346.24 | 346.54 | 346.35 | N/A | N/A | 343.34 | 343.68 | 343.01 | 343.01 | | 343.72 | 343.58 | 343.63 | 343.57 | N/A |
| 23-Jun-03 | 342.20 | 342.20 | 344.04 | 344.30 | 345.80 | 346.32 | 346.02 | Dry | Dry | 342.75 | 343.13 | 341.90 | 342.70 | | 343.19 | 342.83 | 343.07 | 342.95 | 342.46 |
| 02-Sep-03 | 341.46 | 341.46 | 343.29 | Dry | 344.33 | 344.68 | 344.29 | Dry | Dry | Dry | Dry | Dry | Dry | | Dry | 342.69 | 342.42 | 342.45 | 341.50 |
| 03-Nov-03 | 341.85 | 341.85 | 344.14 | 345.27 | 344.68 | 347.33 | 345.48 | 342.98 | N/R | 343.03 | Dry | Dry | 342.57 | | 343.55 | 343.51 | 342.77 | 343.27 | 342.23 |
| 19-Apr-04 | 342.74 | 342.73 | 344.45 | 345.23 | 347.06 | 347.23 | 346.99 | 343.14 | N/A | 343.60 | N/A | 342.99 | 343.08 | | 343.86 | 343.60 | 343.76 | 343.64 | 342.70 |
| 07-Jun-04 | 342.23 | 342.22 | 343.64 | 343.89 | 345.72 | 345.85 | 345.70 | 341.21 | Dry | 342.65 | 343.04 | 342.23 | 342.76 | | 343.26 | 343.14 | 343.08 | 342.94 | 342.19 |
| 23-Aug-04 | 341.88 | 341.88 | 343.08 | 343.39 | 344.72 | 344.97 | 344.75 | Dry | Dry | 342.79 | 342.95 | 343.10 | N/A | | 343.47 | 343.12 | 342.94 | 342.88 | 341.95 |
| 01-Nov-04 | 341.58 | 341.58 | 343.61 | 345.22 | 344.45 | 344.55 | 344.61 | 343.01 | N/R | 342.71 | Dry | 342.39 | 342.61 | | 343.18 | 343.20 | 342.85 | 342.77 | 342.28 |
| 11-Apr-05 | 342.69 | 342.68 | 344.27 | 345.03 | 347.17 | 346.96 | 346.77 | N/A | N/A | N/A | N/A | 343.01 | 343.18 | | 343.83 | N/A | N/A | N/A | N/A |
| 21-Jun-05 | 342.21 | 342.20 | 343.86 | 344.48 | 345.63 | 345.61 | 345.45 | Dry | Dry | 342.81 | 342.96 | 342.43 | 342.63 | | 343.59 | 343.17 | 342.86 | 342.80 | 341.91 |
| 31-Aug-05 | 341.38 | 341.38 | 343.06 | 345.31 | 344.19 | N/A | 343.95 | Dry | Dry | 342.52 | Dry | 342.05 | 342.64 | | 342.89 | 342.72 | 342.50 | 342.27 | 341.82 |
| 15-Nov-05 | 341.48 | 341.49 | 343.81 | 345.12 | 344.40 | 344.65 | 344.40 | Dry | N/R | 343.18 | Dry | 342.47 | 342.57 | | 343.15 | 343.55 | 343.04 | 343.10 | 342.44 |
| 24-Apr-06 | 342.75 | 342.74 | 344.27 | 345.13 | 346.85 | 347.57 | 347.25 | 343.17 | N/A | 343.54 | N/A | 343.03 | 343.14 | | 343.87 | 343.32 | 343.54 | 343.57 | 342.98 |
| 07-Jun-06 | 342.71 | 342.71 | 344.36 | 345.13 | 346.46 | 346.52 | 346.36 | 342.95 | N/A | 343.34 | N/A | 342.82 | 343.02 | | 343.78 | 343.70 | 343.61 | 343.57 | 342.49 |
| 30-Aug-06 | N/A | 341.96 | 343.11 | 343.58 | 345.02 | N/A | 344.98 | Dry | N/A | 342.60 | 342.89 | 342.32 | 342.65 | | 343.46 | 343.23 | 342.80 | 342.61 | 342.06 |
| 24-Nov-06 | 342.84 | 342.84 | 344.40 | 345.28 | 346.52 | 347.11 | 346.86 | 343.17 | N/R | 343.56 | 343.46 | 343.03 | 343.09 | | 343.91 | 343.77 | 343.77 | 343.70 | 343.02 |
| 10-Apr-07 | 342.95 | 342.94 | 344.47 | 345.25 | 347.27 | 347.10 | 346.95 | 343.13 | N/A | 343.19 | 343.47 | 342.59 | 343.14 | | 343.89 | 343.56 | 343.21 | 343.11 | 343.03 |
| 18-Jun-07 | 342.25 | 342.25 | 344.50 | 345.27 | 345.57 | 346.51 | 345.31 | 343.01 | N/A | 342.90 | 343.09N/A | 342.33 | 342.71 | | 342.54 | 343.21 | 343.26 | 343.39 | 342.49 |
| 13-Aug-07 | 341.18 | 341.18 | 344.32 | 345.14 | 343.94 | Dry | Dry | Dry | N/A | 342.22 | 342.85 | 342.17 | Dry | | 342.69 | 342.56 | 342.24 | 342.15 | 341.48 |
| 15-Nov-07 | 340.91 | 340.92 | 341.89 | 345.21 | 343.63 | Dry | Dry | Dry | N/R | 342.09 | 342.81 | 342.05 | 342.57 | | 342.48 | 342.22 | 343.00 | 342.81 | 342.89 |
| 29-Apr-08 | 342.77 | 342.80 | 344.11 | 344.64 | 347.11 | 346.90 | 346.75 | 343.09 | N/A | 343.43 | 343.37 | 343.13 | 343.20 | | 343.78 | 343.64 | 343.73 | 343.66 | 342.94 |
| 18-Jun-08 | 342.39 | 342.39 | 343.55 | 343.09 | 345.91 | 345.91 | 345.69 | N/A | N/A | 342.77 | 343.05 | 342.33 | 342.71 | | 343.18 | 342.25 | 342.51 | 342.60 | 342.32 |
| 11-Sep-08 | 342.16 | 342.14 | 342.53 | 345.12 | 345.21 | 345.29 | 345.03 | Dry | N/A | 343.00 | 343.03 | 342.75 | 342.78 | | 343.51 | 343.33 | 343.39 | 343.29 | Dry |
| 20-Nov-08 | 342.23 | | | | | | | | | | | | | | | | | | |
| 24-Nov-08 | | 342.42 | 344.31 | 345.04 | 345.78 | 346.44 | 345.18 | 342.93 | N/R | 342.95 | 342.47 | 342.45 | 342.96 | | 343.30 | 342.02 | | | 343.14 |
| 27-Apr-09 | 342.99 | 342.99 | 344.37 | 345.45 | 347.27 | 347.52 | 347.35 | 343.02 | N/A | 343.43 | 343.35 | 342.88 | 343.24 | | 343.82 | 343.59 | 344.48 | 343.59 | 343.02 |
| 31-May-09 | | | | | | | | | | | | | | | | | | | |
| 22-Jun-09 | Decom | N/A | N/A | N/A | N/A | N/A | N/A | 343.10 | N/A | 342.95 | 342.58 | 342.36 | 342.87 | | 343.21 | 343.22 | 343.70 | 343.63 | 342.87 |
| 20-Aug-09 | | N/A | N/A | N/A | N/A | N/A | N/A | 342.93 | N/A | 342.84 | 342.91 | 342.28 | 342.59 | | 343.02 | 343.17 | 343.33 | 343.20 | 341.38 |
| 24-Aug-09 | Decom | | | | | | | | | | | | | | | | | | |
| 10-Nov-09 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 342.93 | 342.58 | 342.56 | 342.90 | 342.28 | 342.57 | | 343.10 | 343.32 | 342.76 | 342.98 | 342.40 |
| 18-Apr-10 | 341.94 | | | | | | | | | | | | | | | | | | |
| 20-May-10 | | | | | | | | 343.16 | 342.79 | 343.05 | 342.78 | 342.38 | 342.91 | | 343.23 | 343.16 | 343.61 | 343.54 | 342.81 |
| 01-Jun-10 | 342.00 | | | | | | | | | | | | | | | | | | |
| 01-Aug-10 | 341.92 | | | | | | | | | | | | | | | | | | |
| 20-Oct-10 | | | | | | | | 342.93 | 342.58 | 341.96 | 342.61 | 343.48 | 343.27 | | 344.59 | 342.76 | 343.26 | 343.45 | 342.59 |

**Note: All Water Level in mASL**

# A2: Groundwater Elevations - - Eastview Road Landfill Site

| Monitor | 35-I | 35-II | 36-I | 37-I | 50-I | 53-I | 53-II | 53-IIR | 54-I | 60-I | 60-II | 60-III | 90-I | 90-II | 91-I | 92-I | 93-I | 94-I | 95-I | 86-2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Outwash | Outwash | Bedrock | Bedrock | Bedrock | Bedrock | Lower Till | Lower Till | Bedrock | Upper Till | Upper Till | Lower Till | Lower Bedrock | Bedrock | Bedrock | Bedrock | Bedrock | Bedrock | Bedrock | Upper Till |
| Date | | | | | | | | | | | | | | | | | | | | |
| 28-Apr-92 | 342.19 | 342.99 | 342.41 | 338.80 | 340.77 | | | | | | | | | | | | | | | 341.18 |
| 14-Aug-92 | 342.15 | 343.02 | 342.44 | 341.69 | 340.27 | | | | | | | | | | | | | | | 343.15 |
| 10-Nov-92 | 342.20 | 342.85 | 342.62 | 341.99 | 341.39 | | | | | | | | | | | | | | | 343.68 |
| 22-Mar-93 | 341.85 | | | | | | | | | | | | | | | | | | | 340.60 |
| 22-Apr-93 | 342.29 | 343.15 | 342.70 | 342.30 | 341.74 | 342.26 | | | 343.66 | | | | | | | | | | | 340.69 |
| 25-May-93 | | | | | | 342.20 | | | 345.33 | | | | | | | | | | | |
| 08-Jun-93 | 342.14 | 342.92 | 342.40 | 342.01 | 341.72 | 341.73 | | | 345.69 | | | | | | | | | | | 342.44 |
| 23-Aug-93 | 341.87 | 342.56 | 341.72 | 340.88 | 340.45 | 341.22 | | | 344.33 | 341.93 | 339.78 | 341.75 | | | | | | | | 341.41 |
| 26-Oct-93 | 342.10 | 342.68 | 342.02 | 341.11 | 340.66 | 341.46 | 329.60 | | | 342.42 | 343.56 | 343.74 | | | | | | | | 343.72 |
| 16-Mar-94 | | | | | | | | | | | | | | | | | | | | |
| 20-Apr-94 | 342.22 | 343.03 | 342.60 | 341.68 | 341.36 | 341.97 | 340.37 | | 345.31 | 342.90 | 344.36 | 344.97 | | | | | | | | 343.85 |
| 18-Jun-94 | 342.29 | 342.93 | 342.26 | 341.47 | 341.09 | 341.66 | 341.46 | | 344.68 | 342.30 | 343.53 | 344.52 | | | | | | | | 343.09 |
| 24-Aug-94 | 341.86 | 342.50 | 341.77 | 340.92 | 340.52 | 341.19 | 341.26 | | 343.91 | 341.74 | 342.73 | 343.71 | | | | | | | | 341.65 |
| 26-Oct-94 | 341.36 | 342.25 | 341.46 | 340.53 | 340.10 | 340.84 | 340.81 | | 343.16 | 341.16 | 341.63 | 342.29 | | | | | | | | 340.85 |
| 18-Apr-95 | 342.33 | 342.97 | 342.42 | 341.38 | 340.99 | 341.69 | 341.80 | | 344.68 | 342.48 | 344.07 | 344.84 | | | | | | | | 343.46 |
| 16-Jun-95 | 342.11 | 342.78 | 342.25 | 341.25 | 340.85 | 341.70 | 341.37 | | 344.78 | 342.50 | 344.14 | 345.02 | | | | | | | | 342.94 |
| 21-Aug-95 | 342.17 | 342.79 | 342.20 | 341.15 | 340.87 | 341.47 | 341.39 | | 344.26 | 342.36 | 343.89 | 344.88 | | | | | | | | |
| 13-Nov-95 | 342.26 | 343.55 | 342.47 | 341.36 | 341.64 | 341.73 | 341.50 | | 344.26 | 342.35 | 344.03 | 345.49 | | | | | | | | 344.17 |
| 15-Apr-96 | 342.17 | 342.92 | 342.54 | 341.59 | 341.27 | 341.79 | 341.76 | | 345.27 | 342.73 | 344.47 | 345.43 | | | | | | | | 344.11 |
| 13-Jun-96 | 342.39 | 343.07 | 342.60 | 342.04 | 341.65 | 342.13 | 340.99 | | 345.31 | 342.90 | 344.42 | 345.89 | | | | | | | | 344.13 |
| 15-Aug-96 | 342.15 | 342.77 | 342.09 | 341.59 | 341.27 | 341.72 | 340.84 | | 344.75 | 342.49 | 344.05 | 345.03 | | | | | | | | 342.62 |
| 12-Nov-96 | 342.32 | 342.88 | 342.46 | 341.79 | 341.46 | 341.90 | 341.43 | | 345.01 | 342.64 | 344.58 | 345.78 | | | | | | | | 344.12 |
| 21-Apr-97 | 342.67 | 342.82 | 342.66 | 342.29 | 341.97 | 342.06 | 342.06 | | 345.48 | 342.98 | 344.85 | 345.91 | | | | | | | | 343.96 |
| 09-Jun-97 | 342.25 | 342.92 | 342.37 | 341.86 | 341.51 | 341.84 | 340.11 | | 344.98 | 342.51 | 344.35 | 345.53 | | | | | | | | 343.23 |
| 18-Aug-97 | 341.56 | 342.38 | 341.66 | 341.51 | 340.71 | 341.20 | 340.67 | | 343.80 | 341.36 | 342.43 | 343.93 | | | | | | | | 341.01 |
| 10-Nov-97 | 341.82 | 342.54 | 341.95 | 341.24 | 340.91 | 341.50 | 341.04 | | 343.54 | 341.77 | 344.05 | 344.92 | | | | | | | | 343.81 |
| 14-Apr-98 | 342.28 | 342.88 | 342.38 | 342.29 | 341.61 | 342.03 | 341.91 | | 345.32 | 342.74 | 344.58 | 345.74 | | | | | | | | |
| 10-Jun-98 | 341.60 | 342.52 | 341.86 | 341.59 | 340.89 | 341.45 | 340.83 | | 344.21 | 341.86 | 343.48 | 344.86 | | | | | | | | 342.36 |
| 10-Aug-98 | 341.49 | 342.33 | 341.66 | 341.20 | 340.54 | 341.05 | 340.62 | | 343.51 | 341.28 | 342.76 | 344.16 | | | | | | | | 340.85 |
| 09-Nov-98 | 341.58 | 341.69 | 341.13 | 340.60 | 339.91 | 340.43 | 340.85 | | 342.22 | 340.35 | 340.89 | 341.77 | | | | | | | | 340.85 |
| 16-Apr-99 | 342.91 | 342.81 | 342.24 | 341.19 | 340.64 | 341.25 | 341.59 | | 344.26 | 342.02 | 344.04 | 345.10 | | | | | | | | 343.87 |
| 23-Jun-99 | 342.36 | 342.47 | 341.98 | 340.91 | 340.34 | 341.01 | 341.01 | | 344.06 | 341.77 | 343.56 | 344.69 | | | | | | | | 343.14 |
| 16-Aug-99 | 342.16 | 342.05 | 341.86 | 340.70 | 340.16 | 340.76 | 340.46 | | 343.52 | 341.35 | 343.04 | 344.23 | | | | | | | | 342.65 |
| 16-Nov-99 | 342.53 | 342.42 | 342.30 | 342.11 | 340.56 | 341.33 | 341.17 | | 343.90 | 342.06 | 344.30 | 345.31 | | | | | | | | |
| 12-Apr-00 | 342.89 | 342.83 | 342.33 | 341.11 | 340.56 | 340.75 | 341.63 | | 344.86 | 341.18 | 344.14 | 345.45 | | | | | | | | 344.77 |
| 19-Jun-00 | N/A | 342.75 | 342.57 | 341.71 | 341.12 | 341.60 | 341.18 | | 345.48 | 342.73 | 344.64 | 345.93 | | | | | | | | 344.73 |
| 14-Aug-00 | 342.83 | 342.81 | 342.46 | 341.91 | 341.31 | 341.76 | 340.94 | | 345.19 | 342.68 | 344.60 | 345.53 | | | | | | | | 344.36 |
| 06-Nov-00 | 342.25 | 342.26 | 341.91 | 341.11 | 340.56 | 341.00 | 341.20 | | 343.91 | 341.61 | 343.22 | 344.30 | | | | | | | | 342.76 |
| 02-Apr-01 | 342.84 | 342.89 | 342.52 | 341.71 | 341.18 | 341.52 | 341.75 | | 345.42 | 342.78 | 344.65 | 346.11 | | | | | | | | 344.74 |
| 25-Jun-01 | 342.36 | 342.47 | 342.11 | 341.27 | 340.67 | 341.26 | 341.41 | | 344.59 | 342.19 | 344.21 | 345.35 | | | | | | | | 343.80 |
| 13-Aug-01 | N/A | 342.14 | 341.53 | N/A | 339.96 | 340.47 | 340.20 | | 343.66 | 341.23 | 342.84 | 344.43 | | | | | | | | 341.72 |
| 05-Nov-01 | 342.78 | 342.77 | 341.91 | N/A | 340.58 | 341.22 | 341.19 | | 344.10 | 341.94 | 344.02 | 345.67 | | | | | | | | 344.73 |
| 22-Apr-02 | 342.86 | 342.91 | 342.78 | 341.96 | 341.41 | 341.68 | 341.78 | | 345.52 | 342.87 | 344.74 | 345.77 | | | | | | | | 344.63 |
| 17-Jun-02 | 342.86 | 342.86 | 342.17 | 341.99 | 341.39 | 341.75 | 341.05 | | 345.19 | 342.67 | 344.64 | 345.84 | | | | | | | | 344.66 |
| 12-Aug-02 | 341.98 | 342.12 | 341.68 | 341.11 | 340.48 | 340.92 | 340.68 | | 343.92 | 341.70 | 343.70 | 344.79 | | | | | | | | 342.66 |
| 04-Nov-02 | 341.65 | 342.68 | 342.13 | 340.57 | 340.06 | 340.57 | 340.93 | | 343.05 | 341.28 | 343.80 | 344.84 | | | | | | | | N/A |

**Note: All Water Level in mASL**

# A2: Groundwater Elevations - - Eastview Road Landfill Site

| Monitor | 35-I | 35-II | 36-I | 37-I | 50-I | 53-I | 53-II | 53-IIR | 54-I | 60-I | 60-II | 60-III | 90-I | 90-II | 91-I | 92-I | 93-I | 94-I | 95-I | 86-2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Outwash | Outwash | Bedrock | Bedrock | Bedrock | Bedrock | Lower Till | Lower Till | Bedrock | Upper Till | Upper Till | Lower Till | Lower Bedrock | Bedrock | Bedrock | Bedrock | Bedrock | Bedrock | Bedrock | Upper Till |
| Date | | | | | | | | | | | | | | | | | | | | |
| 22-Apr-03 | 342.84 | 342.84 | 342.43 | 341.24 | 340.64 | 341.35 | 341.48 | | 344.99 | 342.37 | 344.26 | 345.55 | | | | | | | | 344.60 |
| 23-Jun-03 | 342.73 | 342.67 | 342.28 | 341.12 | 340.56 | 341.21 | 341.05 | | 344.72 | 342.46 | 344.25 | 345.26 | | 342.03 | 342.70 | 340.54 | | | | N/A |
| 02-Sep-03 | N/A | 342.13 | 341.63 | 340.52 | 339.98 | 340.60 | 340.88 | | 343.75 | 341.58 | 343.72 | 344.64 | | 341.30 | 341.83 | 339.94 | | | | 342.65 |
| 03-Nov-03 | 342.76 | 342.68 | 342.13 | 340.81 | 340.31 | 340.88 | 341.14 | | 343.93 | 341.84 | 344.17 | 346.23 | 316.76 | 341.82 | 342.23 | 340.27 | | | | 344.65 |
| 19-Apr-04 | 342.88 | 342.88 | 342.53 | 341.92 | 341.38 | 341.69 | 342.16 | | 345.41 | 342.75 | 344.63 | 346.12 | 317.89 | 342.48 | 343.22 | 341.55 | | | | 344.57 |
| 07-Jun-04 | 342.45 | 342.33 | 342.23 | 341.78 | 341.21 | 341.55 | 342.50 | | 344.85 | 342.32 | 344.21 | 345.16 | 317.94 | 342.12 | 342.67 | 341.32 | | | | N/A |
| 23-Aug-04 | 342.34 | 342.55 | 342.01 | 341.44 | 340.84 | 341.38 | 342.11 | | 344.36 | 341.94 | 343.75 | 344.74 | 318.00 | 341.79 | 342.23 | 340.92 | | | | 342.76 |
| 01-Nov-04 | 342.39 | 342.32 | 342.03 | 341.17 | 340.57 | 341.09 | 342.44 | | 343.25 | 341.73 | 343.92 | 345.80 | 316.63 | 341.63 | 341.95 | 340.64 | | | | 344.31 |
| 11-Apr-05 | 342.94 | 342.96 | 342.62 | 342.09 | 341.52 | 341.82 | 342.12 | | 345.47 | 342.75 | 344.47 | 345.57 | 317.27 | 342.57 | 343.19 | 341.69 | | | | 344.36 |
| 21-Jun-05 | 342.38 | 342.68 | 342.18 | 341.55 | 341.00 | 341.47 | 341.32 | | 344.73 | 342.28 | 344.19 | 345.08 | 317.55 | 342.14 | 342.62 | 341.00 | | | | 343.49 |
| 31-Aug-05 | 342.06 | 342.14 | 341.82 | 340.91 | 340.33 | 340.92 | 341.51 | | 343.68 | 341.47 | 343.09 | 344.31 | 315.32 | 342.72 | 341.77 | 340.44 | | | | 341.68 |
| 15-Nov-05 | 342.38 | 342.46 | 341.87 | 340.84 | 340.35 | 341.04 | 342.29 | | 343.63 | 341.64 | 343.88 | 345.74 | 314.99 | 341.75 | 342.08 | 340.21 | | | | 344.42 |
| 24-Apr-06 | 342.80 | 342.86 | 342.44 | 341.91 | 341.48 | 341.74 | 342.43 | | 345.42 | 342.79 | 344.61 | 345.97 | 317.68 | 342.71 | 343.22 | 341.81 | | | | 344.35 |
| 07-Jun-06 | 342.87 | 342.86 | 342.42 | 341.89 | 341.33 | 341.76 | 342.13 | | 345.41 | 342.76 | 344.75 | 345.68 | 317.29 | 342.62 | 339.60 | 341.45 | | | | 344.28 |
| 30-Aug-06 | 342.38 | 342.25 | 342.13 | 341.40 | 340.81 | 341.25 | 342.09 | | 344.43 | 342.05 | 343.78 | 344.86 | 316.66 | 341.97 | 342.34 | 340.98 | | | | 342.99 |
| 24-Nov-06 | 342.88 | 343.02 | 342.67 | 342.02 | 341.50 | 341.91 | 342.84 | | 345.39 | 342.89 | 344.76 | 345.94 | 317.50 | 342.73 | 343.29 | 341.60 | | | | 344.50 |
| 10-Apr-07 | Frozen | Frozen | 342.59 | 342.18 | 341.69 | 341.97 | 342.65 | | 345.56 | 343.02 | 344.88 | 346.02 | 317.91 | 342.84 | 343.42 | 341.85 | | | | |
| 18-Jun-07 | 342.98 | 342.52 | 342.19 | 341.57 | 341.11 | 341.50 | | 339.49 | 344.86 | 342.28 | 344.15 | 345.63 | 317.19 | 342.18 | 342.63 | 341.25 | | | | 342.99 |
| 13-Aug-07 | Dry | 342.07 | 341.57 | 340.96 | 340.41 | 340.88 | | 341.23 | 343.85 | 341.21 | 342.52 | 344.11 | 316.14 | 341.34 | 341.52 | 340.49 | | | | Dry |
| 15-Nov-07 | 341.78 | 341.90 | 341.60 | 340.61 | 340.14 | 340.70 | | 341.27 | 343.08 | 341.08 | 343.25 | 345.80 | 316.96 | 341.08 | 341.13 | 340.23 | 340.10 | 340.45 | 340.18 | 342.44 |
| 29-Apr-08 | 342.84 | 342.88 | 342.54 | 342.09 | 341.48 | 341.85 | | 341.94 | 345.25 | 342.85 | 344.68 | 345.75 | 317.91 | 342.82 | 343.23 | 341.73 | 340.94 | 341.80 | 341.68 | 344.39 |
| 18-Jun-08 | 343.02 | 342.58 | 342.32 | 341.85 | 341.31 | 341.63 | | 341.64 | 344.95 | 342.46 | 344.34 | 345.65 | 317.62 | 342.36 | 342.83 | 341.44 | 340.55 | 341.54 | 341.44 | 343.24 |
| 11-Sep-08 | 342.84Dry | 342.75 | 342.27 | 341.50 | 341.02 | 341.45 | | 341.81 | 344.59 | 342.26 | 344.10 | 345.09 | 316.54 | 342.19 | 342.55 | 341.10 | 340.52 | 341.30 | 341.10 | 344.57 |
| 20-Nov-08 | | | | 341.66 | 341.32 | 341.75 | | 341.79 | 348.11 | 342.74 | | | 317.43 | 342.69 | 343.18 | 341.35 | 340.73 | 341.55 | 341.49 | |
| 24-Nov-08 | 342.73 | 341.35 | 342.45 | | | | | | | | 344.72 | 345.79 | | | | | | | | 342.64 |
| 27-Apr-09 | 343.31 | 342.69 | 342.76 | | 341.91 | 342.07 | | 339.57 | 345.53 | 343.03 | 345.91 | 346.26 | 318.13 | 342.56 | 343.59 | 342.08 | 340.61 | 342.00 | 342.28 | 344.38 |
| 31-May-09 | | | | | | | | | | | | | | | | | | | | |
| 22-Jun-09 | 342.83 | 342.88 | 342.30 | 341.82 | 341.41 | 341.52 | | 341.72 | 345.06 | 342.64 | 344.69 | 345.60 | 318.11 | 341.87 | 342.26 | 341.52 | 340.86 | 341.63 | 341.51 | 343.81 |
| 20-Aug-09 | 342.67 | 342.68 | 342.05 | | | | | | | | 344.11 | 344.93 | | | | | | | | 343.18 |
| 24-Aug-09 | | | | 341.18 | 339.02 | 341.19 | | 341.61 | 344.28 | 342.25 | | | 314.50 | 341.96 | 342.47 | 340.87 | 340.44 | 340.85 | 340.63 | |
| 10-Nov-09 | 342.58 | 342.45 | 342.07 | 340.85 | 340.49 | 340.92 | | 341.57 | 343.90 | 341.97 | 344.30 | 345.11 | 313.40 | 341.90 | 342.24 | 340.56 | 340.29 | 340.79 | 340.61 | 343.18 |
| 18-Apr-10 | | | | 340.94 | 340.99 | 341.50 | | 341.79 | 344.89 | 342.64 | | | 317.03 | 342.43 | 343.08 | 341.07 | 340.71 | 341.29 | 341.12 | |
| 20-May-10 | 342.71 | 342.81 | 342.32 | 341.34 | 338.97 | 341.54 | | 341.36 | 344.89 | 342.66 | 344.81 | 345.87 | 312.17 | 342.56 | 343.05 | 341.06 | 340.70 | 341.77 | 341.17 | 343.92 |
| 01-Jun-10 | | | | 340.39 | 340.97 | 341.49 | | 341.79 | 344.55 | 342.23 | | | 316.03 | 342.27 | 342.60 | 341.28 | 340.74 | 341.29 | 341.60 | |
| 01-Aug-10 | | | | 341.29 | 340.84 | 341.49 | | 341.73 | 344.56 | 342.25 | | | 316.19 | 342.19 | 342.58 | 341.25 | 340.73 | 341.18 | 341.30 | |
| 20-Oct-10 | 342.93 | 342.42 | 342.33 | 340.95 | 339.31 | 341.37 | | 341.48 | 344.24 | 342.44 | 344.46 | 345.95 | 316.77 | 341.57 | 342.71 | | 340.50 | 340.72 | 340.79 | |

**Note: All Water Level in mASL**

## A3 : Performance Monitors Groundwater Elevations - Eastview Road Landfill

| Date<br>Monitor | 25-Jan-10 | 23-Feb-10 | 02-Mar-10 | 13-Apr-10 | 05-May-10 | 26-Jun-10 | 10-Oct-10 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C1-I** | 341.81 | 341.73 | 341.74 | 341.93 | 341.87 | 341.76 | 341.70 | | | | | |
| **C1-II** | 342.56 | 341.41 | 342.55 | 342.46 | 341.97 | 342.42 | 342.23 | | | | | |
| **C2-I** | 341.70 | 341.56 | 341.61 | 341.94 | 341.90 | 341.66 | 341.51 | | | | | |
| **C2-II** | 341.71 | 341.13 | 342.35 | 341.92 | 341.88 | 341.90 | 341.83 | | | | | |
| **C3-I** | 342.60 | 342.53 | 342.54 | 342.70 | 342.56 | 342.61 | 342.57 | | | | | |
| **C5-I** | 342.05 | 341.96 | 342.03 | 342.35 | 342.26 | 342.12 | 342.00 | | | | | |
| **C6-I** | 342.15 | 341.97 | 342.05 | 342.00 | 342.05 | 342.02 | 341.97 | | | | | |
| **C6-II** | 342.25 | 341.96 | 342.11 | 342.20 | 342.22 | 342.02 | 341.98 | | | | | |
| **C7-I** | 342.17 | 341.97 | 342.03 | 342.07 | 341.98 | 342.03 | 341.98 | | | | | |
| **C8-I** | 342.24 | 342.09 | 342.35 | 342.45 | 342.24 | 342.21 | 342.14 | | | | | |
| **C9-I** | 342.52 | 342.40 | 342.44 | 342.62 | 342.55 | 342.50 | 342.44 | | | | | |
| **C9-II** | 342.57 | 342.43 | 342.47 | 342.67 | 342.57 | 342.57 | 342.47 | | | | | |
| **C10-I** | 342.44 | 342.29 | 342.35 | 342.52 | 343.18 | 342.47 | 342.40 | | | | | |
| **C10-II** | 342.58 | 342.42 | 342.49 | 342.68 | 342.60 | 342.57 | 342.52 | | | | | |
| **C11-I** | 342.63 | 342.41 | 342.64 | 342.70 | 342.68 | 342.69 | 342.61 | | | | | |
| **C11-II** | 342.60 | 342.43 | 342.63 | 342.75 | 342.67 | 342.73 | 342.18 | | | | | |
| **C12-I** | 342.46 | 342.26 | 343.26 | 342.56 | 342.46 | 342.49 | 342.46 | | | | | |
| **C13-I** | 343.01 | 342.26 | 343.10 | 342.91 | 343.08 | 342.83 | 342.86 | | | | | |
| **C14-I** | 344.07 | 343.76 | 343.99 | 344.60 | 344.29 | 344.02 | 343.99 | | | | | |
| **D1-I** | 343.87 | 341.31 | 341.93 | 341.76 | 341.42 | 341.53 | 341.38 | | | | | |
| **D2-I** | 340.98 | 340.95 | 340.96 | 341.01 | 340.82 | 340.97 | 340.97 | | | | | |
| **D3-I** | 340.16 | 340.05 | 340.30 | 341.21 | 340.12 | 340.01 | 339.96 | | | | | |
| **D4-I** | 341.31 | 341.30 | 341.29 | 341.32 | 341.29 | 341.29 | 341.31 | | | | | |
| **D5-I** | 341.81 | 341.68 | 341.66 | 341.96 | 341.89 | 341.92 | 341.90 | | | | | |

**Note: All Water Level in mASL**

## A4 : Selected Bedrock and Lower Till Groundwater Elevations - Eastview Road Landfill Site

| | Bedrock Locations | | | | | | | | | | | | | | | | | | | Lower Till Locations | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Date | 4-IR | 5-III | 13-I | 14-IV | 15-I | 16-VII | 16-VII | 19-I | 20-I | 37-I | 50-I | 53-I | 54-I | 90-I | 90-II | 91-I | 92-I | 93-I | 94-I | 95-I | 11-III | 16-VI | 53-II /53-IIR | 60-I |
| 13-Jan-94 | | | | | | | | 341.79 | | | | 341.49 | 344.30 | | | | | | | | 343.28 | 341.93 | 340.53 | 342.50 |
| 20-Jan-94 | 341.13 | | 341.91 | | 338.17 | | | 341.70 | 342.16 | 341.02 | 340.65 | 341.41 | 344.24 | | | | | | | | | | | |
| 17-Feb-94 | 341.19 | | 341.92 | | 337.91 | | | 341.76 | 342.23 | 341.02 | 340.66 | 341.48 | 344.22 | | | | | | | | | | | |
| 16-Mar-94 | 341.32 | | 342.12 | | 338.05 | | | 341.88 | 342.25 | 341.02 | 340.85 | 341.54 | 344.48 | | | | | | | | 343.40 | 342.03 | 337.28 | 342.36 |
| 12-Apr-94 | 341.78 | | 342.43 | | 338.59 | | | 342.30 | 342.77 | 341.61 | 341.28 | 341.95 | 345.21 | | | | | | | | 343.77 | 342.26 | 340.02 | 342.77 |
| 20-Apr-94 | 341.83 | | 342.42 | | 338.69 | | | 342.46 | 342.84 | 341.68 | 341.36 | 341.97 | 345.31 | | | | | | | | 343.85 | 342.37 | 340.37 | 342.90 |
| 16-May-94 | 342.05 | | 342.52 | | 338.90 | | | 342.57 | 342.86 | 341.87 | 341.52 | 342.08 | 345.44 | | | | | | | | 343.96 | 342.13 | 339.46 | 343.02 |
| 18-Jun-94 | 341.38 | | 342.12 | | 338.21 | | | 341.88 | 342.17 | 341.47 | 341.09 | 341.66 | 344.68 | | | | | | | | 343.52 | 341.73 | 341.46 | 342.30 |
| 21-Jun-94 | 341.37 | | 342.13 | | 338.24 | | | 341.96 | 342.25 | 341.47 | 341.08 | 341.69 | 344.77 | | | | | | | | 343.60 | 341.77 | 341.35 | 342.42 |
| 18-Jul-94 | 341.24 | | 342.42 | | 338.06 | | | 341.78 | 342.80 | 341.34 | 340.92 | 341.58 | 345.08 | | | | | | | | 343.48 | 341.61 | 340.37 | 342.24 |
| 15-Aug-94 | 340.88 | | 341.64 | | 337.70 | | | 341.45 | 341.81 | 341.06 | 340.67 | 341.30 | 344.08 | | | | | | | | 343.28 | 341.43 | 341.15 | 341.86 |
| 24-Aug-94 | 340.63 | | 341.51 | | 337.60 | | | 341.31 | 341.69 | 340.92 | 340.52 | 341.19 | 343.91 | | | | | | | | 343.20 | 341.33 | 341.26 | 341.74 |
| 23-Sep-94 | 340.36 | | 341.54 | | 337.63 | | | 340.75 | 341.78 | 340.93 | 341.10 | 339.97 | 344.33 | | | | | | | | 343.39 | 341.39 | 340.76 | 341.25 |
| 19-Oct-94 | 340.31 | | 341.42 | | 337.53 | | | 340.74 | 341.74 | 340.87 | 340.93 | 340.80 | 343.16 | | | | | | | | 342.82 | 341.20 | 340.72 | 341.15 |
| 26-Oct-94 | 340.57 | | 341.16 | | 337.56 | | | 340.75 | 340.91 | 340.53 | 340.10 | 340.84 | 343.16 | | | | | | | | 343.49 | 341.25 | 340.81 | 341.16 |
| 16-Nov-94 | 340.47 | | 341.30 | | 337.66 | | | 340.94 | 341.45 | 340.57 | 340.16 | 340.16 | 343.16 | | | | | | | | 342.92 | 341.39 | 340.85 | 341.45 |
| 19-Dec-94 | 340.69 | | 341.38 | | 337.60 | | | 341.26 | 341.68 | 340.73 | 340.33 | 341.12 | 343.25 | | | | | | | | 343.05 | 341.54 | 341.06 | 341.78 |
| 18-Jan-95 | 341.42 | | 341.62 | | 338.22 | | | 342.00 | 342.29 | 341.29 | 340.95 | 341.55 | 344.29 | | | | | | | | 343.42 | 342.32 | 341.50 | 342.35 |
| 15-Feb-95 | 341.37 | | 341.44 | | 338.13 | | | 341.91 | 342.19 | 340.78 | 340.68 | 341.56 | 344.65 | | | | | | | | 343.47 | 341.81 | 341.68 | 342.30 |
| 13-Mar-95 | 341.46 | | 341.49 | | 338.21 | | | 341.92 | 342.15 | 340.95 | 340.88 | 341.66 | 344.58 | | | | | | | | 343.54 | 342.11 | 341.74 | 342.22 |
| 11-Apr-95 | 341.56 | | 342.24 | | 338.04 | | | 342.08 | 342.35 | 341.40 | 341.03 | 341.70 | 344.67 | | | | | | | | 343.54 | 341.87 | 341.74 | 342.45 |
| 18-Apr-95 | 341.58 | | 342.21 | | 338.31 | | | 342.12 | 342.36 | 341.38 | 340.99 | 341.69 | 344.68 | | | | | | | | 343.49 | 341.86 | 341.80 | 342.48 |
| 11-May-95 | 341.67 | | 342.04 | | 338.55 | | | 342.33 | 342.68 | 341.58 | 341.23 | 341.80 | 345.22 | | | | | | | | 343.76 | 341.93 | 341.73 | 342.75 |
| 16-Jun-95 | 341.46 | | 342.06 | | 338.03 | | | 341.99 | 342.46 | 341.25 | 340.85 | 341.70 | 344.78 | | | | | | | | 343.37 | 341.73 | 341.37 | 342.50 |
| 21-Jun-95 | 341.46 | | 342.06 | | 338.03 | | | 341.99 | 342.46 | 341.25 | 340.85 | 341.70 | 344.78 | | | | | | | | 343.37 | 341.73 | 341.37 | 342.50 |
| 17-Jul-95 | 341.27 | | 341.90 | | 338.08 | | | 341.74 | 342.12 | 341.18 | 340.82 | 340.54 | 344.41 | | | | | | | | 343.45 | 341.74 | 341.36 | 342.17 |
| 15-Aug-95 | 341.38 | | 342.02 | | 338.25 | | | 341.84 | 342.16 | 341.30 | 340.95 | 341.36 | 344.22 | | | | | | | | 343.48 | 342.05 | 341.51 | 342.26 |
| 21-Aug-95 | 341.17 | | 341.97 | | 337.73 | | | 341.86 | 342.27 | 341.15 | 340.87 | 341.47 | 344.26 | | | | | | | | 343.66 | 341.75 | 341.39 | 342.36 |
| 23-Sep-95 | 340.75 | | 341.60 | | 337.81 | | | 341.21 | 341.83 | 340.87 | 341.05 | 340.44 | 343.72 | | | | | | | | | | | |
| 28-Sep-95 | | | | | | | | | | | | | | | | | | | | | 343.41 | 341.55 | 341.01 | 341.51 |
| 18-Oct-95 | | | | | | | | | | | | | | | | | | | | | 343.42 | 341.56 | 341.03 | 341.53 |
| 19-Oct-95 | 340.77 | | 341.63 | | 337.84 | | | 341.24 | 341.86 | 340.89 | 340.99 | 340.52 | 343.78 | | | | | | | | | | | |
| 11-Nov-95 | | | | | | | | | | | | | | | | | | | | | 343.61 | 342.15 | 341.16 | 342.34 |
| 13-Nov-95 | 341.59 | | 342.15 | | 338.34 | | | 342.07 | 342.32 | 341.36 | 341.64 | 341.73 | 344.26 | | | | | | | | 343.56 | 342.21 | 341.50 | 342.35 |
| 22-Nov-95 | 341.96 | | 342.32 | | 338.67 | | | 342.25 | 342.58 | 341.64 | 341.34 | 341.99 | 344.82 | | | | | | | | | | | |
| 18-Dec-95 | 341.68 | | 342.25 | | 338.26 | | | 342.21 | 342.46 | 341.50 | 341.17 | 341.87 | 344.84 | | | | | | | | 343.66 | 341.87 | 338.56 | 342.76 |

**Note: All Water Level in mASL**

## A4 : Selected Bedrock and Lower Till Groundwater Elevations - Eastview Road Landfill Site

| | Bedrock Locations | | | | | | | | | | | | | | | | | | | Lower Till Locations | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Date | 4-IR | 5-III | 13-I | 14-IV | 15-I | 16-VII | 6-VII | 19-I | 20-I | 37-I | 50-I | 53-I | 54-I | 90-I | 90-II | 91-I | 92-I | 93-I | 94-I | 95-I | 11-III | 16-VI | 53-II /53-IIR | 60-I |
| 16-Jan-96 | 341.12 | | 341.91 | | 337.83 | | | 341.72 | 342.08 | 341.13 | 340.78 | 341.43 | 344.39 | | | | | | | | 343.36 | 341.70 | 340.83 | 342.31 |
| 14-Feb-96 | 341.33 | | 342.15 | | 337.93 | | | 342.06 | 342.43 | 341.39 | 341.03 | 341.63 | 344.87 | | | | | | | | 343.75 | 342.06 | 341.56 | 342.54 |
| 13-Mar-96 | 341.28 | | 342.14 | | 337.94 | | | 342.03 | 342.39 | 341.37 | 341.02 | 341.62 | 344.86 | | | | | | | | 343.64 | 341.96 | 341.76 | 342.47 |
| 09-Apr-96 | 341.62 | | 342.28 | | 338.34 | | | 342.30 | 342.63 | 341.59 | 341.27 | 341.79 | 345.27 | | | | | | | | 343.81 | 342.13 | 341.76 | 342.73 |
| 15-Apr-96 | 341.62 | | 342.28 | | 338.34 | | | 342.30 | 342.63 | 341.59 | 341.27 | 341.79 | 345.27 | | | | | | | | 343.81 | 342.13 | 341.76 | 342.73 |
| 06-May-96 | 342.00 | | 342.57 | | 339.00 | | | 342.58 | 343.01 | 341.97 | 341.59 | 342.08 | 345.57 | | | | | | | | 344.18 | 342.23 | 337.11 | 343.08 |
| 10-Jun-96 | 342.05 | | 342.44 | | 339.00 | | | 342.47 | 342.82 | 342.04 | 341.65 | 342.13 | 345.31 | | | | | | | | 344.02 | 342.21 | 340.99 | 342.90 |
| 13-Jun-96 | 342.05 | | 342.44 | | 339.00 | | | 342.47 | 342.82 | 342.04 | 341.65 | 342.13 | 345.31 | | | | | | | | 344.02 | 342.21 | 340.99 | 342.90 |
| 16-Jul-96 | 341.77 | | 342.35 | | 338.87 | | | 342.22 | 342.64 | 341.94 | 341.52 | 341.96 | 345.07 | | | | | | | | 343.89 | 342.01 | 338.83 | 342.70 |
| 12-Aug-96 | 341.40 | | 342.09 | | 338.51 | | | 341.96 | 342.41 | 341.59 | 341.27 | 341.72 | 344.75 | | | | | | | | 343.96 | 341.78 | 340.84 | 342.49 |
| 15-Aug-96 | 341.40 | | 342.09 | | 338.51 | | | 341.96 | 342.41 | 341.59 | 341.27 | 341.72 | 344.75 | | | | | | | | 343.96 | 341.78 | 340.84 | 342.49 |
| 17-Sep-96 | 341.80 | | 342.32 | | 338.67 | | | 342.12 | 342.49 | 341.75 | 341.34 | 341.92 | 344.79 | | | | | | | | 343.80 | 342.06 | 338.35 | 342.57 |
| 16-Oct-96 | 341.80 | | 342.39 | | 338.66 | | | 342.24 | 342.63 | 341.78 | 341.39 | 341.91 | 344.91 | | | | | | | | 343.74 | 342.02 | 340.87 | 342.65 |
| 12-Nov-96 | 341.82 | | 342.45 | | 338.75 | | | 340.40 | 342.42 | 341.79 | 341.46 | 341.90 | 345.01 | | | | | | | | 343.84 | 342.06 | 341.43 | 342.64 |
| 13-Nov-96 | 341.82 | | 342.45 | | 338.75 | | | 340.40 | 342.42 | 341.79 | 341.46 | 341.90 | 345.01 | | | | | | | | 343.84 | 342.06 | 341.43 | 342.64 |
| 12-Dec-96 | 341.75 | | 342.41 | | 338.49 | | | 340.26 | 342.41 | 341.71 | 341.45 | 341.85 | 344.92 | | | | | | | | 343.70 | 342.05 | 339.31 | 342.58 |
| 20-Jan-97 | 341.78 | | 342.45 | | 338.56 | | | 340.26 | 342.55 | 341.88 | 341.61 | 341.92 | 345.01 | | | | | | | | 343.90 | 342.04 | 341.52 | 342.83 |
| 18-Feb-97 | 341.67 | | 342.32 | | 338.32 | | | 340.17 | 342.42 | 341.76 | 341.48 | 341.83 | 344.80 | | | | | | | | 343.79 | 341.98 | 341.80 | 342.59 |
| 21-Mar-97 | 342.09 | | 342.64 | | 338.94 | | | 340.62 | 342.83 | 342.20 | 341.92 | 342.12 | 345.44 | | | | | | | | 344.12 | 342.19 | 341.98 | 342.95 |
| 21-Apr-97 | 342.07 | | 342.66 | | 339.04 | | | 340.90 | 342.86 | 342.29 | 341.97 | 342.06 | 345.48 | | | | | | | | 344.29 | 342.16 | 342.06 | 342.98 |
| 14-May-97 | 342.03 | | 342.64 | | 339.04 | | | 340.97 | 342.80 | 342.28 | 341.88 | 342.16 | 345.41 | | | | | | | | 344.25 | 342.19 | 335.48 | 342.92 |
| 09-Jun-97 | 341.66 | | 342.43 | | 338.74 | | | 340.53 | 342.37 | 341.86 | 341.51 | 341.84 | 344.98 | | | | | | | | 343.98 | 341.91 | 340.11 | 342.51 |
| 15-Jul-97 | 341.33 | | 342.06 | | 338.52 | | | 340.17 | 341.90 | 341.61 | 341.26 | 341.63 | 344.47 | | | | | | | | 343.63 | 341.58 | 338.50 | 342.01 |
| 18-Aug-97 | 340.87 | | 341.47 | | 337.72 | | | 339.69 | 341.21 | 341.51 | 340.71 | 341.20 | 343.80 | | | | | | | | 343.22 | 341.50 | 340.67 | 341.36 |
| 29-Sep-97 | 341.00 | | 341.71 | | 338.25 | | | 340.08 | 341.57 | 341.21 | 340.88 | 341.33 | 343.64 | | | | | | | | 343.24 | 341.49 | 339.43 | 341.74 |
| 20-Oct-97 | 340.75 | | 341.44 | | 337.91 | | | 339.91 | 341.35 | 340.99 | 340.66 | 341.15 | 343.21 | | | | | | | | 343.08 | 341.42 | 340.62 | 341.53 |
| 10-Nov-97 | 341.20 | | 341.89 | | 338.25 | | | 340.26 | 341.65 | 341.24 | 340.91 | 341.50 | 343.54 | | | | | | | | 343.38 | 341.78 | 341.04 | 341.77 |
| 15-Dec-97 | 341.36 | | 341.96 | | 338.08 | | | 340.57 | 342.01 | 341.26 | 340.99 | 341.59 | 343.88 | | | | | | | | 343.38 | 341.79 | 339.57 | 342.17 |
| 20-Jan-98 | 341.78 | | 342.33 | | 338.37 | | | 340.94 | 342.49 | 342.03 | 341.40 | 341.91 | 344.87 | | | | | | | | 343.81 | 342.02 | 341.43 | 342.53 |
| 23-Feb-98 | 341.77 | | 342.37 | | 338.45 | | | 340.98 | 342.54 | 342.04 | 341.42 | 341.67 | 344.98 | | | | | | | | 343.69 | 342.18 | 341.77 | 342.61 |
| 19-Mar-98 | 341.81 | | 342.47 | | 338.50 | | | 341.10 | 342.68 | 342.18 | 341.52 | 341.89 | 345.34 | | | | | | | | 343.85 | 342.13 | 341.85 | 342.77 |
| 14-Apr-98 | 341.89 | | 342.50 | | 338.72 | | | 341.01 | 342.60 | 342.29 | 341.61 | 342.03 | 345.32 | | | | | | | | 343.89 | 341.98 | 341.91 | 342.74 |
| 14-May-98 | 341.69 | | 342.33 | | 338.51 | | | 340.73 | 342.31 | 342.05 | 341.37 | 341.82 | 344.91 | | | | | | | | 343.67 | 341.86 | 339.18 | 342.40 |
| 10-Jun-98 | 341.04 | | 341.91 | | 337.81 | | | 339.98 | 341.74 | 341.59 | 340.89 | 341.45 | 344.21 | | | | | | | | 343.41 | 341.88 | 340.83 | 341.86 |
| 15-Jul-98 | 341.06 | | 342.03 | | 338.22 | | | 340.03 | 341.82 | 341.52 | 340.83 | 341.47 | 344.14 | | | | | | | | 343.50 | 341.59 | 339.20 | 341.97 |
| 10-Aug-98 | 340.58 | | 341.42 | | 337.36 | | | 339.30 | 341.16 | 341.20 | 340.54 | 341.05 | 343.51 | | | | | | | | 343.15 | 341.31 | 340.62 | 341.28 |

**Note: All Water Level in mASL**

## A4 : Selected Bedrock and Lower Till Groundwater Elevations - Eastview Road Landfill Site

| | Bedrock Locations | | | | | | | | | | | | | | | | | | | Lower Till Locations | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Monitor Date** | **4-IR** | **5-III** | **13-I** | **14-IV** | **15-I** | **16-VII** | **6-VII** | **19-I** | **20-I** | **37-I** | **50-I** | **53-I** | **54-I** | **90-I** | **90-II** | **91-I** | **92-I** | **93-I** | **94-I** | **95-I** | **11-III** | **16-VI** | **53-II /53-IIR** | **60-I** |
| **23-Sep-98** | 340.07 | | 340.80 | | 337.10 | | | 338.77 | 340.48 | 340.74 | 340.03 | 340.63 | 342.62 | | | | | | | | 342.78 | 340.91 | 339.67 | 340.58 |
| **16-Oct-98** | 340.08 | | 340.80 | | 337.35 | | | 338.73 | 340.32 | 340.70 | 340.02 | 340.61 | 342.47 | | | | | | | | 342.71 | 340.90 | 340.51 | 340.41 |
| **09-Nov-98** | 340.00 | | 340.69 | | 337.31 | | | 338.72 | 340.21 | 340.60 | 339.91 | 340.43 | 342.22 | | | | | | | | 342.64 | 340.89 | 340.85 | 340.35 |
| **15-Dec-98** | 340.04 | | 341.20 | | 337.32 | | | 339.07 | 340.45 | 340.62 | 339.97 | 340.62 | 342.34 | | | | | | | | 342.78 | 341.44 | 339.04 | 340.56 |
| **26-Jan-99** | 339.98 | | 341.01 | | 336.99 | | | 339.03 | 340.42 | 340.45 | 339.82 | 340.58 | 342.33 | | | | | | | | 342.75 | 341.35 | 340.90 | 342.78 |
| **15-Feb-99** | 340.44 | | 341.61 | | 337.29 | | | 339.59 | 341.32 | 343.04 | 340.28 | 340.90 | 343.22 | | | | | | | | 343.09 | 341.82 | 341.22 | 343.10 |
| **16-Mar-99** | 340.71 | | 341.79 | | 337.73 | | | 340.17 | 341.70 | 341.10 | 340.48 | 341.13 | 343.88 | | | | | | | | 343.33 | 341.79 | 341.48 | 341.81 |
| **16-Apr-99** | 340.82 | | 341.98 | | 337.83 | | | 340.33 | 341.89 | 341.19 | 340.64 | 341.25 | 344.26 | | | | | | | | 343.42 | 341.87 | 341.59 | 342.02 |
| **20-May-99** | 340.57 | | 341.83 | | 337.68 | | | 339.75 | 341.69 | 341.02 | 340.48 | 341.06 | 344.20 | | | | | | | | 342.80 | 341.69 | 339.71 | 341.77 |
| **23-Jun-99** | 340.52 | | 341.71 | | 337.98 | | | 339.83 | 341.70 | 340.91 | 340.34 | 341.01 | 344.06 | | | | | | | | 342.67 | 341.50 | 341.01 | 341.77 |
| **16-Jul-99** | 340.40 | | 341.78 | | 337.99 | | | 339.76 | 341.68 | 340.89 | 340.33 | 341.00 | 344.03 | | | | | | | | 342.75 | 341.52 | 338.10 | 341.79 |
| **16-Sep-99** | 340.03 | | 341.37 | | 337.52 | | | 339.75 | 341.10 | 340.56 | 339.98 | 340.66 | 343.23 | | | | | | | | 342.42 | 341.42 | 338.60 | 341.21 |
| **18-Oct-99** | 340.42 | | 341.65 | | 337.95 | | | 340.13 | 341.50 | 340.77 | 340.23 | 340.92 | 343.34 | | | | | | | | 342.63 | 341.59 | 340.65 | 341.64 |
| **16-Dec-99** | 341.00 | | 341.93 | | 337.95 | | | 339.81 | 342.19 | 341.18 | 340.67 | 341.33 | 344.20 | | | | | | | | 342.88 | 341.87 | 339.23 | 342.27 |
| **27-Jan-00** | 340.59 | | 341.78 | | 337.68 | | | 340.47 | 341.97 | 341.01 | 340.49 | 341.13 | 344.23 | | | | | | | | 342.79 | 341.70 | 341.27 | 342.05 |
| **15-Feb-00** | 340.25 | | 341.54 | | 337.28 | | | 340.26 | 341.73 | 340.92 | 340.27 | 340.81 | 343.99 | | | | | | | | 342.59 | 341.60 | 341.41 | 341.82 |
| **21-Mar-00** | 340.70 | | 341.95 | | 337.84 | | | 340.80 | 342.27 | 341.11 | 340.57 | 341.08 | 344.81 | | | | | | | | 343.03 | 341.92 | 341.61 | 342.35 |
| **25-May-00** | 341.07 | | 342.30 | | 338.35 | | | 341.21 | 342.65 | 341.55 | 340.98 | 341.52 | 345.40 | | | | | | | | 343.36 | 342.05 | 340.35 | 342.71 |
| **27-Jul-00** | 341.31 | | 342.26 | | 338.74 | | | 340.98 | 342.52 | 341.76 | 341.18 | 341.69 | 345.08 | | | | | | | | 343.34 | 341.83 | 339.97 | 342.58 |
| **21-Sep-00** | 340.81 | | 341.86 | | 338.03 | | | 340.46 | 341.77 | 341.37 | 340.78 | 341.18 | 344.31 | | | | | | | | 342.93 | 341.52 | 339.90 | 341.84 |
| **17-Oct-00** | 340.80 | | 341.81 | | 338.02 | | | 340.44 | 341.75 | 341.35 | 340.75 | 341.18 | 344.12 | | | | | | | | 342.81 | 341.50 | 340.99 | 341.82 |
| **18-Dec-00** | 340.64 | | 341.85 | | 337.77 | | | 340.56 | 341.95 | 341.22 | 340.57 | 341.13 | 344.22 | | | | | | | | 342.76 | 341.72 | 340.15 | 342.06 |
| **16-Jan-01** | 340.58 | | 341.84 | | 337.56 | | | 340.50 | 342.09 | 341.14 | 340.50 | 341.08 | 344.27 | | | | | | | | 342.72 | 341.70 | 341.21 | 342.20 |
| **14-Feb-01** | 340.96 | | 342.12 | | 337.99 | | | 341.06 | 342.53 | 341.44 | 340.91 | 341.51 | 345.13 | | | | | | | | 343.22 | 342.02 | 341.73 | 342.03 |
| **12-Mar-01** | 340.93 | | 342.10 | | 337.93 | | | 341.00 | 342.58 | 341.47 | 340.94 | 341.41 | 345.04 | | | | | | | | 343.09 | 342.02 | 341.75 | 342.65 |
| **02-Apr-01** | 341.10 | | 342.15 | | 338.16 | | | 341.28 | 342.72 | 341.71 | 341.18 | 341.52 | 345.42 | | | | | | | | 343.51 | 342.15 | 341.75 | 342.78 |
| **14-May-01** | 340.87 | | 342.05 | | 338.05 | | | 340.96 | 342.36 | 341.53 | 340.92 | 341.36 | 345.01 | | | | | | | | 343.26 | 341.85 | 340.39 | 342.42 |
| **25-Jun-01** | 340.54 | | 341.95 | | 337.69 | | | 340.67 | 342.11 | 341.27 | 340.67 | 341.26 | 344.59 | | | | | | | | 343.22 | 341.69 | 341.41 | 342.19 |
| **26-Jul-01** | 340.14 | | 341.40 | | 337.36 | | | 340.06 | 341.54 | 340.90 | 340.31 | 340.78 | 344.07 | | | | | | | | 342.79 | 341.41 | 339.24 | 341.63 |
| **13-Aug-01** | 339.79 | | 341.11 | | 337.07 | | | 339.54 | 341.15 | N/A | 339.96 | 340.47 | 343.66 | | | | | | | | 342.61 | 341.28 | 340.20 | 341.23 |
| **19-Sep-01** | 339.96 | | 341.24 | | 337.54 | | | 339.69 | 340.83 | N/A | 340.03 | 340.59 | 343.19 | | | | | | | | 342.54 | 341.46 | 339.99 | 340.91 |
| **29-Oct-01** | 340.71 | | 341.81 | | 337.98 | | | 340.58 | 341.67 | N/A | 340.52 | 341.13 | 343.85 | | | | | | | | 343.08 | 341.74 | 341.16 | 341.77 |
| **05-Nov-01** | 340.83 | | 341.83 | | 338.02 | | | 340.71 | 341.82 | N/A | 340.58 | 341.22 | 344.10 | | | | | | | | 343.07 | 341.79 | 341.19 | 341.94 |
| **21-Dec-01** | 341.24 | | 342.24 | | 338.39 | | | 341.28 | 342.46 | N/A | 341.03 | 341.54 | 345.07 | | | | | | | | 343.32 | 342.01 | 340.61 | 342.53 |
| **29-Jan-02** | 341.13 | | 342.16 | | 338.17 | | | 341.19 | 342.44 | N/A | 340.94 | 341.46 | 345.02 | | | | | | | | 343.13 | 341.94 | 341.54 | 342.50 |
| **22-Feb-02** | 341.26 | | 342.28 | | 338.32 | | | 341.42 | 342.67 | N/A | 341.11 | 341.60 | 345.38 | | | | | | | | 343.40 | 342.08 | 341.71 | 342.72 |

**Note: All Water Level in mASL**

## A4 : Selected Bedrock and Lower Till Groundwater Elevations - Eastview Road Landfill Site

| | Bedrock Locations | | | | | | | | | | | | | | | | | | | Lower Till Locations | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Monitor Date** | **4-IR** | **5-III** | **13-I** | **14-IV** | **15-I** | **16-VII** | **16-VII** | **19-I** | **20-I** | **37-I** | **50-I** | **53-I** | **54-I** | **90-I** | **90-II** | **91-I** | **92-I** | **93-I** | **94-I** | **95-I** | **11-III** | **16-VI** | **53-II /53-IIR** | **60-I** |
| **26-Mar-02** | 341.13 | | 342.22 | | 338.31 | | | 341.25 | 342.63 | 341.64 | 341.08 | 341.52 | 345.36 | | | | | | | | 343.45 | 341.97 | 341.76 | 342.68 |
| **22-Apr-02** | 341.37 | | 342.38 | | 338.60 | | | 341.46 | 342.79 | 341.96 | 341.41 | 341.68 | 345.52 | | | | | | | | 343.58 | 342.12 | 341.78 | 342.87 |
| **09-May-02** | 341.62 | | 342.46 | | 338.88 | | | 341.58 | 342.78 | 342.09 | 341.48 | 341.82 | 345.51 | | | | | | | | 343.69 | 342.02 | 337.69 | 342.84 |
| **17-Jun-02** | 341.47 | | 342.34 | | 338.67 | | | 341.38 | 342.62 | 341.99 | 341.39 | 341.75 | 345.19 | | | | | | | | 343.54 | 341.99 | 341.05 | 342.67 |
| **23-Jul-02** | 340.62 | | 341.65 | | 337.78 | | | 340.51 | 341.79 | 341.30 | 340.69 | 341.07 | 344.36 | | | | | | | | 342.99 | 341.46 | 340.08 | 341.88 |
| **12-Aug-02** | 340.43 | | 341.49 | | 337.68 | | | 340.29 | 341.59 | 341.11 | 340.48 | 340.92 | 343.92 | | | | | | | | 342.87 | 341.31 | 340.68 | 341.70 |
| **13-Sep-02** | 339.93 | | 340.93 | | 337.27 | | | 339.70 | 340.96 | 340.69 | 340.06 | 340.53 | 343.33 | | | | | | | | 342.50 | 340.92 | 339.00 | 341.06 |
| **22-Oct-02** | 339.88 | | 341.00 | | 337.20 | | | 339.92 | 340.97 | 340.59 | 340.01 | 340.50 | 343.07 | | | | | | | | 342.45 | 341.20 | 340.84 | 341.16 |
| **04-Nov-02** | 339.99 | | 341.10 | | 337.36 | | | 339.98 | 341.07 | 340.57 | 340.06 | 340.57 | 343.05 | | | | | | | | 342.48 | 341.20 | 340.93 | 341.28 |
| **18-Dec-02** | 340.11 | | 341.31 | | 337.41 | | | 340.06 | 341.23 | 340.77 | 340.08 | 340.61 | 343.12 | | | | | | | | 342.50 | 341.38 | 340.03 | 341.44 |
| **28-Jan-03** | 340.19 | | 341.39 | | 337.45 | | | 340.26 | 341.32 | 340.72 | 340.05 | 340.64 | 343.37 | | | | | | | | 342.46 | 341.46 | 341.06 | 341.52 |
| **27-Feb-03** | 340.08 | | 341.31 | | 337.33 | | | 340.23 | 341.27 | 340.68 | 339.93 | 340.55 | 343.36 | | | | | | | | 342.42 | 341.43 | 341.19 | 341.43 |
| **24-Mar-03** | 340.61 | | 341.75 | | 337.64 | | | 340.74 | 341.70 | 340.87 | 340.35 | 341.07 | 344.08 | | | | | | | | 342.87 | 341.97 | 341.28 | 341.81 |
| **22-Apr-03** | 341.06 | | 342.09 | | 338.34 | | | 341.20 | 342.30 | 341.24 | 340.64 | 341.35 | 344.99 | | | | | | | | 343.18 | 342.02 | 341.48 | 342.37 |
| **29-May-03** | 341.22 | 345.05 | 342.36 | 339.28 | 338.52 | 338.81 | | 341.33 | 342.50 | 341.41 | 340.90 | 341.49 | 345.11 | | | 343.04 | 340.92 | | | | 343.28 | 341.97 | 339.97 | 342.57 |
| **23-Jun-03** | 340.87 | 345.02 | 342.16 | 339.32 | 338.16 | 338.63 | | 340.74 | 342.20 | 341.12 | 340.56 | 341.21 | 344.72 | | 342.03 | 342.70 | 340.54 | | | | 343.14 | 341.77 | 341.05 | 342.46 |
| **23-Jul-03** | 340.56 | 344.68 | 341.66 | 336.71 | 337.67 | 338.64 | 314.51 | 340.73 | 341.91 | 340.85 | 340.33 | 340.94 | 344.32 | | 341.71 | 342.31 | 340.31 | | | | 342.74 | 341.51 | 339.09 | 342.01 |
| **26-Aug-03** | 340.13 | 344.63 | 341.29 | 336.09 | 337.15 | 337.51 | 313.52 | 340.36 | 341.47 | 340.53 | 339.99 | 340.64 | 343.75 | | 341.34 | 341.87 | 339.96 | | | | 342.55 | 341.31 | 340.81 | 341.61 |
| **02-Sep-03** | 340.11 | 344.56 | 341.24 | 336.07 | 337.11 | 337.42 | 313.51 | 340.31 | 341.46 | 340.52 | 339.98 | 340.60 | 343.75 | | 341.30 | 341.83 | 339.94 | | | | 342.52 | 341.30 | 340.88 | 341.58 |
| **15-Oct-03** | 340.15 | 344.45 | 341.44 | 336.17 | 337.36 | 339.01 | 313.74 | 340.49 | 341.49 | 340.52 | 339.99 | 340.66 | 343.58 | 314.01 | 341.37 | 341.83 | 339.93 | | | | 342.47 | 341.55 | 340.43 | 341.64 |
| **03-Nov-03** | 340.60 | 344.43 | 341.65 | 336.59 | 337.79 | 339.45 | 316.43 | 340.92 | 341.85 | 340.81 | 340.31 | 340.88 | 343.93 | 316.76 | 341.82 | 342.23 | 340.27 | | | | 342.54 | 341.77 | 341.14 | 341.84 |
| **23-Dec-03** | 341.44 | 344.35 | 343.23 | 337.79 | 338.53 | 340.10 | 318.60 | 341.55 | 342.52 | 341.53 | 341.03 | 341.61 | 345.11 | 318.98 | 342.38 | 342.97 | 341.00 | | | | 343.21 | 341.95 | 342.34 | 342.58 |
| **30-Jan-04** | 341.08 | 344.33 | 341.94 | 337.10 | 338.08 | 339.62 | 316.07 | 341.12 | 342.19 | 341.37 | 340.84 | 341.49 | 344.65 | 316.40 | 342.19 | 342.53 | 340.75 | | | | 343.09 | 341.76 | 342.04 | 342.31 |
| **24-Feb-04** | 340.90 | 344.32 | 341.70 | 336.38 | 337.57 | 339.20 | 313.58 | 341.21 | 342.21 | 341.29 | 340.63 | 341.22 | 344.53 | 313.83 | 342.12 | 342.65 | 340.66 | | | | 342.93 | 341.71 | 341.83 | 342.30 |
| **31-Mar-04** | 341.53 | 344.31 | 342.29 | 337.53 | 338.56 | 339.84 | 317.15 | 341.83 | 342.79 | 341.92 | 341.38 | 341.78 | 345.61 | 317.50 | 342.59 | 343.28 | 341.51 | | | | 343.62 | 342.27 | 342.54 | 342.82 |
| **19-Apr-04** | 341.44 | 344.31 | 342.27 | 337.56 | 338.47 | 339.66 | 317.47 | 341.68 | 342.74 | 341.92 | 341.38 | 341.69 | 345.41 | 317.89 | 342.48 | 343.22 | 341.55 | | | | 343.64 | 342.03 | 342.16 | 342.75 |
| **17-May-04** | 341.60 | 344.30 | 342.40 | 338.19 | 338.91 | 340.27 | 318.77 | 341.64 | 342.75 | 342.07 | 341.50 | 341.79 | 345.43 | 319.28 | 342.53 | 343.22 | 341.64 | | | | 343.71 | 342.00 | 342.21 | 342.80 |
| **07-Jun-04** | 341.17 | 344.29 | 342.12 | 337.66 | 338.45 | 339.60 | 317.81 | 341.21 | 342.23 | 341.78 | 341.21 | 341.55 | 344.85 | 317.94 | 342.12 | 342.67 | 341.32 | | | | 343.35 | 341.77 | 342.50 | 342.32 |
| **18-Jun-04** | 341.30 | 344.30 | 342.27 | 337.77 | 338.63 | 339.72 | 318.10 | 341.33 | 342.31 | 341.90 | 341.30 | 341.68 | 345.03 | 318.14 | 342.25 | 342.87 | 341.40 | | | | 343.47 | 341.83 | 342.33 | 342.40 |
| **06-Jul-04** | 341.17 | 344.29 | 342.12 | 337.66 | 338.45 | 339.60 | 317.81 | 341.21 | 342.23 | 341.78 | 341.21 | 341.55 | 344.85 | 317.94 | 342.12 | 342.67 | 341.32 | | | | 343.35 | 341.77 | 342.50 | 342.32 |
| **23-Aug-04** | 340.87 | 344.24 | 341.84 | 337.91 | 338.23 | 339.65 | 317.95 | 340.80 | 341.88 | 341.44 | 340.84 | 341.38 | 344.36 | 318.00 | 341.79 | 342.23 | 340.92 | | | | 343.16 | 341.64 | 342.11 | 341.94 |
| **27-Sep-04** | 340.53 | 344.23 | 341.78 | 337.97 | 338.12 | 339.61 | 317.45 | 340.35 | 341.66 | 341.19 | 340.68 | 341.17 | 344.15 | 317.96 | 341.30 | 342.06 | 340.78 | | | | 343.00 | 341.56 | 342.10 | 341.79 |
| **15-Oct-04** | 340.43 | 344.21 | 341.78 | 337.91 | 337.99 | 339.37 | 316.99 | 340.48 | 341.64 | 341.19 | 340.63 | 341.13 | 343.52 | 317.11 | 341.47 | 341.99 | 340.69 | | | | 342.94 | 341.59 | 342.24 | 341.77 |
| **01-Nov-04** | 340.41 | 344.21 | 341.73 | 337.74 | 337.84 | 339.23 | 316.18 | 340.66 | 341.58 | 341.17 | 340.57 | 341.09 | 343.25 | 316.63 | 341.63 | 341.95 | 340.64 | | | | 342.85 | 341.62 | 342.44 | 341.73 |
| **21-Dec-04** | 341.41 | 344.20 | 342.21 | 338.36 | 338.45 | 339.80 | 318.35 | 341.36 | 342.38 | 341.67 | 341.15 | 341.63 | 344.82 | 318.94 | 342.35 | 342.80 | 341.20 | | | | 343.26 | 341.92 | 342.45 | 342.34 |
| **13-Jan-05** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | | | | N/A | N/A | N/A | N/A |

**Note: All Water Level in mASL**

## A4 : Selected Bedrock and Lower Till Groundwater Elevations - Eastview Road Landfill Site

| | Bedrock Locations | | | | | | | | | | | | | | | | | | | Lower Till Locations | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Monitor Date** | **4-IR** | **5-III** | **13-I** | **14-IV** | **15-I** | **16-VII** | **16-VII** | **19-I** | **20-I** | **37-I** | **50-I** | **53-I** | **54-I** | **90-I** | **90-II** | **91-I** | **92-I** | **93-I** | **94-I** | **95-I** | **11-III** | **16-VI** | **53-II /53-IIR** | **60-I** |
| **24-Feb-05** | 341.63 | 342.55 | 342.36 | 338.49 | 338.59 | 339.39 | 318.76 | 341.59 | 342.52 | 341.58 | 341.48 | 341.82 | 345.17 | 319.31 | 342.51 | 343.01 | 341.56 | | | | 343.51 | 342.11 | 342.16 | 342.70 |
| **21-Mar-05** | 341.61 | 342.65 | 341.79 | 338.42 | 338.58 | 339.23 | 317.27 | 341.64 | 342.73 | 341.80 | 341.52 | 341.82 | 345.35 | 317.93 | 342.54 | 343.12 | 341.65 | | | | 343.51 | 342.11 | 342.16 | 342.70 |
| **11-Apr-05** | 341.55 | 342.71 | 341.27 | 338.36 | 338.56 | 339.17 | 317.05 | 341.67 | 342.69 | 342.09 | 341.52 | 341.82 | 345.47 | 317.27 | 342.57 | 343.19 | 341.69 | | | | 343.89 | 342.19 | 342.12 | 342.75 |
| **18-May-05** | 341.44 | 342.77 | 342.22 | 338.39 | 338.36 | 339.99 | 316.83 | 341.64 | 342.61 | 341.92 | 341.37 | 341.73 | 345.27 | 317.18 | 342.48 | 343.08 | 341.46 | | | | 343.56 | 341.96 | 339.99 | 342.67 |
| **21-Jun-05** | 341.15 | 342.36 | 342.04 | 338.16 | 337.73 | 339.58 | 317.05 | 341.25 | 342.21 | 341.55 | 341.00 | 341.47 | 344.73 | 317.55 | 342.14 | 342.62 | 341.00 | | | | 343.26 | 341.70 | 341.32 | 342.28 |
| **28-Jul-05** | 340.64 | 341.98 | 341.56 | 337.72 | 337.66 | 339.25 | 315.47 | 340.67 | 341.64 | 341.15 | 340.60 | 341.13 | 344.09 | 315.78 | 341.71 | 342.06 | 340.63 | | | | 342.85 | 341.43 | 339.76 | 341.77 |
| **31-Aug-05** | 340.63 | 341.89 | 341.49 | 337.65 | 337.51 | 338.99 | 314.96 | 340.51 | 341.38 | 340.91 | 340.33 | 340.92 | 343.68 | 315.32 | 342.72 | 341.77 | 340.44 | | | | 342.76 | 341.47 | 341.51 | 341.47 |
| **21-Sep-05** | 340.15 | 341.62 | 341.33 | 337.57 | 337.62 | 339.34 | 314.96 | 340.42 | 341.26 | 340.74 | 340.19 | 340.75 | 343.42 | 315.34 | 341.29 | 341.60 | 340.16 | | | | 342.58 | 341.23 | 337.29 | 341.39 |
| **28-Oct-05** | 340.30 | 341.73 | 341.54 | 337.55 | 337.49 | 339.38 | 314.63 | 340.63 | 341.55 | 340.78 | 340.25 | 340.85 | 343.42 | 315.03 | 341.54 | 341.86 | 340.22 | | | | 342.66 | 341.55 | 341.59 | 341.70 |
| **15-Nov-05** | 340.51 | 342.17 | 341.65 | 337.50 | 337.48 | 339.37 | 314.57 | 340.86 | 341.48 | 340.84 | 340.35 | 341.04 | 343.63 | 314.99 | 341.75 | 342.08 | 340.21 | | | | 342.77 | 341.64 | 342.29 | 341.64 |
| **20-Dec-05** | 340.99 | 342.40 | 341.87 | 338.16 | 337.87 | 339.42 | 314.51 | 341.21 | 342.18 | 341.16 | 340.61 | 341.35 | 344.63 | 314.88 | 342.20 | 342.60 | 340.62 | | | | 343.03 | 341.82 | 342.42 | 342.27 |
| **23-Jan-06** | 341.06 | 342.84 | 342.17 | 338.40 | 338.14 | 339.77 | 315.34 | 341.33 | 342.41 | 341.40 | 340.95 | 341.34 | 345.21 | 315.66 | 342.10 | 342.86 | 341.02 | | | | 343.41 | 342.09 | 342.54 | 342.45 |
| **20-Feb-06** | Compl | Compl | Compl | Compl | Compl | Compl | Compl | Compl | Compl | Compl | Compl | Compl | Compl | Compl | Compl | Compl | Compl | | | | t Comple | t Comple | t Comple | t Comple |
| **21-Mar-06** | 341.51 | 342.95 | 342.35 | 338.60 | 338.53 | 339.98 | 317.11 | 341.79 | 342.77 | 341.98 | 341.40 | 341.81 | 345.54 | 317.42 | 342.62 | 343.27 | 341.52 | | | | 343.82 | 342.07 | 342.50 | 342.83 |
| **24-Apr-06** | 341.48 | 342.64 | 342.31 | 338.49 | 338.53 | 339.95 | 316.81 | 341.84 | 342.75 | 341.91 | 341.48 | 341.74 | 345.42 | 317.68 | 342.71 | 343.22 | 341.81 | | | | 343.61 | 341.97 | 342.43 | 342.79 |
| **26-May-06** | 341.44 | 342.83 | 342.27 | 338.72 | 338.61 | 340.13 | 317.14 | 341.74 | 342.70 | 341.90 | 341.34 | 341.76 | 345.28 | 317.50 | 342.53 | 343.14 | 341.44 | | | | 343.64 | 341.99 | 342.22 | 342.75 |
| **07-Jun-06** | 341.43 | 342.83 | 342.24 | 338.95 | 338.58 | 340.07 | 316.98 | 341.56 | 342.71 | 341.89 | 341.33 | 341.76 | 345.41 | 317.29 | 342.62 | 339.60 | 341.45 | | | | 343.56 | 341.98 | 342.13 | 342.76 |
| **28-Jul-06** | 341.18 | 342.64 | 342.13 | 338.54 | 338.35 | 339.92 | 317.11 | 341.25 | 342.34 | 341.61 | 341.05 | 341.53 | 344.89 | 317.49 | 342.26 | 342.75 | 341.14 | | | | 343.37 | 341.87 | 342.20 | 342.43 |
| **30-Aug-06** | 340.81 | 342.31 | 341.88 | 338.46 | 338.16 | 339.70 | 316.39 | 340.96 | N/A | 341.40 | 340.81 | 341.25 | 344.43 | 316.66 | 341.97 | 342.34 | 340.98 | | | | 343.13 | 342.10 | 342.09 | 342.05 |
| **26-Sep-06** | 340.96 | 342.43 | 341.97 | 338.30 | 338.24 | 339.93 | 316.06 | 341.11 | 341.99 | 341.36 | 340.82 | 341.34 | 344.35 | 316.45 | 342.04 | 342.37 | 340.90 | | | | 343.03 | 341.73 | 342.46 | 342.09 |
| **31-Oct-06** | 341.62 | 342.84 | 342.36 | 338.59 | 338.40 | 340.16 | 316.91 | 341.86 | 342.76 | 341.95 | 341.45 | 341.86 | 345.34 | 317.27 | 342.71 | 343.21 | 341.58 | | | | 343.70 | 342.12 | 342.63 | 342.80 |
| **24-Nov-06** | 341.63 | 342.83 | 342.37 | 338.61 | 338.41 | 340.13 | 317.13 | 341.93 | 342.84 | 342.02 | 341.50 | 341.91 | 345.39 | 317.50 | 342.73 | 343.29 | 341.60 | | | | 343.61 | 342.12 | 342.84 | 342.89 |
| **18-Dec-06** | 341.71 | 342.80 | 342.38 | 338.87 | 338.63 | 340.46 | 317.67 | 341.97 | 342.94 | 342.16 | 341.63 | 341.95 | 345.47 | 318.08 | 342.81 | 343.40 | 341.77 | | | | 343.80 | 342.06 | 342.55 | 342.99 |
| **22-Jan-07** | 341.54 | 342.71 | 342.34 | 338.76 | 338.52 | 340.32 | 317.44 | 341.58 | 342.81 | 342.10 | 341.62 | 341.79 | 345.32 | 317.82 | 342.44 | 343.28 | 341.74 | | | | 343.75 | 341.99 | 342.28 | 342.91 |
| **27-Feb-07** | 341.35 | 342.34 | 342.06 | 338.36 | 338.28 | 340.02 | 317.06 | 341.36 | 342.44 | 341.88 | 341.25 | 341.74 | 344.74 | 317.49 | 342.38 | 343.13 | 341.37 | | | | 343.37 | 341.80 | 342.02 | 342.51 |
| **26-Mar-07** | 341.74 | 342.90 | 342.39 | 338.44 | 338.47 | 340.21 | 317.06 | 341.93 | 342.84 | 342.16 | 341.62 | 342.00 | 345.46 | 317.45 | 342.82 | 343.34 | 341.77 | | | | 343.85 | 342.14 | 342.63 | 342.91 |
| **10-Apr-07** | 341.72 | 342.90 | 342.42 | 338.60 | 338.51 | 340.28 | 317.49 | 341.96 | 342.95 | 342.18 | 341.69 | 341.97 | 345.56 | 317.91 | 342.84 | 343.42 | 341.85 | | | | 343.94 | 342.07 | 342.65 | 343.02 |
| **22-May-07** | 341.62 | 342.74 | 342.34 | 338.63 | 338.62 | 340.41 | 317.38 | 341.72 | 342.74 | 342.07 | 341.52 | 341.87 | 345.33 | 317.76 | 342.66 | 343.20 | 341.63 | | | | 343.74 | 341.96 | 342.40 | 342.81 |
| **18-Jun-07** | 341.14 | 342.20 | 342.16 | 338.24 | 338.20 | 340.10 | 316.81 | 341.11 | 342.25 | 341.57 | 341.11 | 341.50 | 344.86 | 317.19 | 342.18 | 342.63 | 341.25 | | | | 343.31 | 341.61 | 339.49 | 342.28 |
| **26-Jul-07** | 340.59 | 341.61 | 341.52 | 337.82 | 337.75 | 339.86 | 316.12 | 340.50 | 341.49 | 341.16 | 340.60 | 341.05 | 344.15 | 316.49 | 341.67 | 341.87 | 340.72 | | | | 342.79 | 341.22 | 341.42 | 341.57 |
| **13-Aug-07** | 340.33 | 341.42 | 341.35 | 337.63 | 337.59 | 339.67 | 315.81 | 340.01 | 341.18 | 340.96 | 340.41 | 340.88 | 343.85 | 316.14 | 341.34 | 341.52 | 340.49 | | | | 342.63 | 341.08 | 341.23 | 341.21 |
| **27-Sep-07** | 339.93 | 341.05 | 340.99 | 337.30 | 337.23 | 339.35 | 315.04 | 339.78 | 340.62 | 340.55 | 340.05 | 340.52 | 343.09 | 315.43 | 340.98 | 340.92 | 340.09 | 339.91 | 340.33 | 340.08 | 342.27 | 340.82 | 341.24 | 340.70 |
| **22-Oct-07** | 340.02 | 341.31 | 341.25 | 337.59 | 337.52 | 339.55 | 316.38 | 339.84 | 340.66 | 340.56 | 340.10 | 340.60 | 343.06 | 316.83 | 341.00 | 340.96 | 340.07 | 340.02 | 340.38 | 340.11 | 342.29 | 340.98 | 341.32 | 340.75 |
| **15-Nov-07** | 340.12 | 342.36 | 341.29 | 337.63 | 337.62 | 339.69 | 316.47 | 340.06 | 340.91 | 340.61 | 340.14 | 340.70 | 343.08 | 316.96 | 341.08 | 341.13 | 340.23 | 340.10 | 340.45 | 340.18 | 342.29 | 341.12 | 341.27 | 341.08 |
| **14-Dec-07** | 340.64 | 341.98 | 341.71 | 337.45 | 337.78 | 339.87 | 314.82 | 340.69 | 341.51 | 340.88 | 340.45 | 341.03 | 343.55 | 315.14 | 341.76 | 341.79 | 340.44 | 340.33 | 340.74 | 340.45 | 342.69 | 341.64 | 341.53 | 341.67 |
| **29-Jan-08** | 341.21 | 342.53 | 342.08 | 337.73 | 338.18 | 340.09 | 315.03 | 341.48 | 342.39 | 341.50 | 341.06 | 341.50 | 344.81 | 315.32 | 342.40 | 342.82 | 341.13 | 340.75 | 341.30 | 341.09 | 343.33 | 341.92 | 341.87 | 342.46 |

**Note: All Water Level in mASL**

## A4 : Selected Bedrock and Lower Till Groundwater Elevations - Eastview Road Landfill Site

| | Bedrock Locations | | | | | | | | | | | | | | | | | | | Lower Till Locations | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Monitor Date | 4-IR | 5-III | 13-I | 14-IV | 15-I | 16-VII | 6-VII | 19-I | 20-I | 37-I | 50-I | 53-I | 54-I | 90-I | 90-II | 91-I | 92-I | 93-I | 94-I | 95-I | 11-III | 16-VI | 53-II /53-IIR | 60-I |
| 25-Feb-08 | 341.42 | 342.71 | 342.13 | 337.55 | 338.20 | 340.16 | 314.75 | 341.87 | 342.69 | 341.72 | 341.23 | 341.72 | 345.03 | 312.24 | 339.94 | 343.14 | 341.31 | 340.84 | 341.50 | 341.29 | 343.65 | 341.99 | 341.87 | 342.77 |
| 31-Mar-08 | 341.43 | 342.73 | 342.12 | 337.30 | 338.15 | 340.12 | 315.20 | 341.92 | 342.81 | 341.84 | 341.35 | 341.76 | 345.16 | 315.47 | 342.74 | 343.26 | 341.48 | 340.84 | 341.58 | 341.41 | 343.70 | 342.02 | 341.88 | 342.87 |
| 29-Apr-08 | 341.47 | 342.78 | 342.25 | 338.39 | 338.63 | 340.26 | 317.58 | 341.90 | 342.77 | 342.09 | 341.48 | 341.85 | 345.25 | 317.91 | 342.82 | 343.23 | 341.73 | 340.94 | 341.80 | 341.68 | 343.98 | 341.97 | 341.94 | 342.85 |
| 22-May-08 | 341.54 | 342.76 | 342.32 | 338.45 | 338.84 | 340.43 | 317.70 | 341.91 | 342.84 | 342.08 | 341.58 | 341.85 | 345.27 | 318.07 | 342.67 | 343.27 | 341.67 | 340.75 | 341.80 | 341.62 | 343.76 | 341.93 | 341.71 | 342.92 |
| 18-Jun-08 | 341.27 | 342.43 | 342.14 | 338.13 | 338.49 | 340.24 | 317.21 | 341.54 | 342.39 | 341.85 | 341.31 | 341.63 | 344.95 | 317.62 | 342.36 | 342.83 | 341.44 | 340.55 | 341.54 | 341.44 | 343.54 | 341.83 | 341.64 | 342.46 |
| 24-Jul-08 | 341.42 | 342.58 | 342.10 | 337.99 | 338.23 | 340.18 | 314.90 | 341.61 | 342.45 | 341.88 | 341.41 | 341.82 | 344.86 | 315.22 | 342.62 | 342.83 | 341.41 | 340.72 | 341.57 | 341.42 | 343.46 | 342.14 | 341.73 | 342.57 |
| 20-Aug-08 | 341.34 | 342.60 | 342.14 | 338.18 | 338.40 | 340.04 | 316.47 | 341.69 | 342.60 | 341.78 | 341.30 | 341.67 | 345.00 | 316.87 | 342.53 | 343.04 | 341.42 | 340.70 | 341.52 | 341.40 | 343.48 | 341.87 | 341.87 | 342.68 |
| 11-Sep-08 | 341.13 | 342.24 | 341.94 | 338.16 | 338.21 | 339.80 | 316.08 | 341.38 | 342.16 | 341.50 | 341.02 | 341.45 | 344.59 | 316.54 | 342.19 | 342.55 | 341.10 | 340.52 | 341.30 | 341.10 | 343.15 | 341.77 | 341.81 | 342.26 |
| 30-Oct-08 | 341.21 | 342.26 | 341.96 | 337.96 | 338.14 | 339.92 | 315.96 | 341.49 | 342.36 | 341.49 | 341.02 | 341.50 | 344.53 | 316.42 | 342.34 | 342.77 | 341.10 | 340.53 | 341.29 | 341.12 | 343.06 | 341.77 | 341.74 | 342.45 |
| 20-Nov-08 | 341.57 | 342.60 | 342.05 | 338.23 | 338.32 | 340.02 | 316.84 | 341.86 | 342.23 | 341.66 | 341.32 | 341.75 | 348.11 | 317.43 | 342.69 | 343.18 | 341.35 | 340.73 | 341.55 | 341.49 | 343.45 | 341.87 | 341.79 | 342.74 |
| 27-Dec-08 | 341.74 | 343.04 | 342.43 | 338.48 | 338.51 | 340.30 | 317.30 | 342.25 | 342.70 | 341.85 | 341.69 | 341.84 | 345.55 | 317.31 | 342.80 | 343.53 | 342.02 | 341.02 | 341.94 | 341.81 | 343.81 | 342.08 | 341.91 | 343.11 |
| 26-Jan-09 | 341.56 | 342.61 | 342.15 | 338.11 | 338.46 | 340.19 | 316.90 | 341.83 | 342.75 | 341.96 | 341.45 | 341.81 | 344.94 | 317.39 | 342.69 | 342.20 | 341.59 | 340.47 | 341.69 | 341.59 | 343.50 | 341.84 | 341.86 | 342.82 |
| 25-Feb-09 | 341.71 | 342.78 | 342.26 | 338.14 | 338.60 | 340.20 | 317.14 | 341.98 | 342.87 | 342.17 | 341.66 | 341.94 | 345.13 | 317.60 | 342.84 | 343.33 | 341.86 | 340.58 | 341.87 | 341.82 | 343.78 | 341.93 | 341.89 | 342.93 |
| 31-Mar-09 | 341.76 | 342.76 | 342.33 | 338.18 | 338.73 | 340.02 | 317.57 | 342.03 | 342.91 | 342.34 | 341.77 | 341.95 | 345.31 | 317.52 | 342.89 | 343.34 | 341.99 | 340.62 | 341.95 | 341.92 | 343.78 | 341.98 | 341.88 | 342.98 |
| 27-Apr-09 | 341.85 | 342.77 | 342.40 | 338.16 | 338.67 | 340.37 | 316.90 | 342.01 | 342.99 | | 341.91 | 342.07 | 345.53 | 318.13 | 342.56 | 343.59 | 342.08 | 340.61 | 342.00 | 342.28 | 343.85 | 342.06 | 339.57 | 343.03 |
| 31-May-09 | 341.72 | 342.86 | 342.38 | 338.69 | 338.86 | 340.34 | 318.04 | 341.86 | Decom | 342.59 | 341.79 | 341.93 | 345.19 | 318.53 | 342.74 | 343.32 | 341.89 | 341.05 | 341.97 | 341.93 | 343.72 | 341.93 | 341.83 | 342.87 |
| 22-Jun-09 | 341.24 | 342.46 | 342.24 | 338.10 | 338.35 | 339.99 | 314.58 | 341.53 | Decom | 341.82 | 341.41 | 341.52 | 345.06 | 318.11 | 341.87 | 342.26 | 341.52 | 340.86 | 341.63 | 341.51 | 343.91 | 341.80 | 341.72 | 342.64 |
| 31-Jul-09 | 341.08 | 342.23 | 341.95 | 338.12 | 338.02 | 339.83 | 314.40 | 341.18 | Decom | 341.48 | 341.11 | 341.43 | 344.43 | 316.52 | 342.18 | 342.46 | 341.23 | 340.72 | 341.35 | 341.26 | 343.15 | 341.62 | 341.67 | 342.21 |
| 24-Aug-09 | 340.67 | 342.13 | 341.85 | 337.66 | 337.90 | 337.98 | 314.26 | 340.70 | Decom | 341.18 | 339.02 | 341.19 | 344.28 | 314.50 | 341.96 | 342.47 | 340.87 | 340.44 | 340.85 | 340.63 | 343.03 | 341.53 | 341.61 | 342.25 |
| 29-Sep-09 | 340.34 | 341.84 | 341.55 | 336.77 | 337.73 | 339.42 | 313.56 | 340.78 | Decom | 341.02 | 340.54 | 340.90 | 343.93 | 313.87 | 341.64 | 341.96 | 340.61 | 340.25 | 340.76 | 340.64 | 342.75 | 341.30 | 341.34 | 341.72 |
| 27-Oct-09 | 340.57 | 342.23 | 341.69 | 336.85 | 337.78 | 339.38 | 313.87 | 341.02 | Decom | 341.06 | 340.58 | 341.09 | 343.94 | 314.22 | 341.91 | 342.24 | 340.62 | 340.35 | 340.86 | 340.70 | 342.82 | 341.66 | 341.55 | 342.02 |
| 10-Nov-09 | 340.51 | 342.21 | 341.55 | 336.66 | 337.64 | 339.64 | 313.67 | 341.06 | N/A | 340.85 | 340.49 | 340.92 | 343.90 | 313.40 | 341.90 | 342.24 | 340.56 | 340.29 | 340.79 | 340.61 | 342.81 | 341.67 | 341.57 | 341.97 |
| 08-Dec-09 | 340.72 | 342.46 | 341.62 | 336.70 | 337.61 | 339.68 | 313.79 | 341.20 | 342.12 | 341.03 | 340.55 | 341.12 | 344.07 | 313.81 | 342.14 | 342.42 | 340.85 | 340.35 | 340.89 | 340.64 | 342.95 | 341.68 | 341.45 | 342.24 |
| 25-Jan-10 | 340.75 | 342.45 | 341.62 | 336.67 | 337.62 | 339.67 | 313.81 | 341.18 | 342.13 | 341.03 | 340.58 | 341.13 | 344.08 | 313.82 | 342.14 | 342.41 | 340.84 | 340.35 | 340.90 | 340.65 | 342.86 | 341.60 | 341.66 | 342.28 |
| 26-Feb-10 | 340.63 | 342.12 | 341.51 | 336.55 | 337.63 | 339.39 | 313.96 | 341.19 | 341.49 | 340.99 | 340.42 | 341.01 | 343.94 | 314.37 | 342.06 | 342.45 | 340.47 | 340.26 | 340.79 | 340.55 | 342.85 | 341.70 | 341.62 | 342.27 |
| 24-Mar-10 | 340.80 | 342.42 | 341.66 | 336.66 | 337.78 | 339.54 | 314.18 | 341.34 | 342.11 | 340.99 | 340.23 | 341.11 | 344.06 | 314.59 | 342.20 | 342.55 | 340.59 | 340.32 | 340.88 | 340.63 | 342.92 | 341.86 | 341.64 | 342.30 |
| 18-Apr-10 | 341.11 | 342.57 | 341.99 | 338.09 | 338.40 | 339.89 | 316.62 | 341.66 | 341.94 | 340.94 | 340.99 | 341.50 | 344.89 | 317.03 | 342.43 | 343.08 | 341.07 | 340.71 | 341.29 | 341.12 | 343.94 | 341.85 | 341.79 | 342.64 |
| 03-May-10 | 341.23 | 342.85 | 341.97 | 336.88 | 338.25 | 340.04 | 314.25 | 341.71 | 341.88 | 341.34 | 340.97 | 341.54 | 344.89 | 312.17 | 342.56 | 343.05 | 341.06 | 340.70 | 341.77 | 341.17 | 343.38 | 341.63 | 341.36 | 342.66 |
| 01-Jun-10 | 341.21 | 342.29 | 342.08 | 338.07 | 338.09 | 340.04 | 314.25 | 341.30 | 342.00 | 340.39 | 340.97 | 341.49 | 344.55 | 316.03 | 342.27 | 342.60 | 341.28 | 340.74 | 341.29 | 341.60 | 343.10 | 341.79 | 341.79 | 342.23 |
| 01-Jul-10 | 341.19 | 342.28 | 342.01 | 338.05 | 338.06 | 340.01 | 314.31 | 341.31 | 341.97 | 341.34 | 341.00 | 341.51 | 344.52 | 316.04 | 342.25 | 342.56 | 341.30 | 340.75 | 341.26 | 341.56 | 343.11 | 341.76 | 341.77 | 342.22 |
| 01-Aug-10 | 341.10 | 342.27 | 342.09 | 337.95 | 337.72 | 339.92 | 314.27 | 341.38 | 341.92 | 341.29 | 340.84 | 341.49 | 344.56 | 316.19 | 342.19 | 342.58 | 341.25 | 340.73 | 341.18 | 341.30 | 343.08 | 341.78 | 341.73 | 342.25 |
| 01-Sep-10 | 341.04 | 342.29 | 342.07 | 337.99 | 338.08 | 339.91 | 314.24 | 341.39 | 341.77 | 341.13 | 340.10 | 341.46 | 344.44 | 316.39 | 342.05 | 342.66 | 341.19 | 340.68 | 341.09 | 341.14 | 343.05 | 341.80 | 341.65 | 342.34 |
| 01-Oct-10 | 340.88 | 342.25 | 341.78 | 338.08 | 338.17 | 339.86 | 314.15 | 341.45 | 341.48 | 340.95 | 340.31 | 341.37 | 344.24 | 316.73 | 341.57 | 342.71 | emovec | 340.50 | 340.72 | 340.79 | 342.99 | 341.82 | 341.48 | 342.44 |
| 10-Nov-10 | 340.74 | 342.19 | 341.70 | 337.70 | 337.88 | 339.75 | 313.92 | 341.24 | 341.34 | 340.92 | 339.37 | 341.26 | 344.09 | 316.48 | 341.53 | 342.39 | emovec | 340.37 | 340.76 | 340.72 | 342.91 | 341.72 | 341.49 | 342.35 |
| 16-Dec-10 | 340.84 | 342.28 | 341.76 | 337.33 | 337.71 | 339.79 | 314.01 | 341.30 | 341.43 | 340.99 | 339.82 | 341.19 | 344.20 | 315.15 | 341.83 | 342.51 | emovec | 340.40 | 340.82 | 340.74 | 342.97 | 341.74 | 341.54 | 342.37 |

**Note: All Water Level in mASL**

# A5 : Routine Leachate Groundwater Elevations - Eastview Road Landfill Site

| Monitor | 1-I/1-IR | 51-I/51-IR | 59-I | 67-I | 65-I | 51-II | 52-I | 55-I/55-IR | 56-I/56-IR | 57-I | 58-I | 61-I/61-IR | 63-I | 66-I/66-IR | 68-I | 69-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Waste | | | | Fill/ Waste | Outwash | | | | | | | | | | |
| Date | | | | | | | | | | | | | | | | |
| 21-Jun-93 | 342.73 | 346.81 | | | | | 341.89 | | | | | | | | | |
| 22-Jun-93 | 342.80 | 346.83 | | | | | 341.97 | | | | | | | | | |
| 23-Jun-93 | 342.77 | 346.83 | | | | | 341.95 | | | | | | | | | |
| 24-Jun-93 | 342.65 | 346.78 | | | | | 341.73 | | | | | | | | | |
| 25-Jun-93 | 342.78 | 346.80 | | | | | 341.82 | | | | | | | | | |
| 28-Jun-93 | 342.72 | 346.81 | | | | | 341.80 | | | | | | | | | |
| 29-Jun-93 | 342.73 | 346.81 | | | | | 341.78 | | | | | | | | | |
| 30-Jun-93 | 342.44 | 346.78 | | | | | 342.09 | | | | | | | | | |
| 02-Jul-93 | 342.45 | 346.79 | | | | | 341.72 | | | | | | | | | |
| 08-Jul-93 | 342.36 | 345.76 | | | | | 341.72 | | | | | | | | | |
| 16-Jul-93 | 342.35 | 345.74 | | | | | 341.71 | | | | | | | | | |
| 22-Jul-93 | 342.37 | 345.89 | | | | | 341.72 | | | | | | | | | |
| 08-Aug-93 | 342.44 | 346.44 | | | | | 341.75 | | | | | | | | | |
| 18-Aug-93 | 342.30 | 346.62 | | | | | 341.82 | | | | | | | | | |
| 24-Aug-93 | | | 345.38 | | | | | 342.34 | 340.71 | 341.90 | 341.87 | | | | | |
| 25-Aug-93 | 342.22 | 346.28 | 343.70 | | | | 341.85 | 342.28 | 341.73 | 341.92 | 341.85 | | | | | |
| 27-Aug-93 | | | 343.68 | | | | | 342.31 | 341.81 | 342.04 | 341.99 | | | | | |
| 30-Aug-93 | 342.33 | 346.39 | 343.69 | | | | 341.87 | 342.40 | 341.91 | 342.19 | 342.20 | | | | | |
| 31-Aug-93 | 342.37 | 346.67 | 343.73 | | | | 341.87 | 342.42 | 341.93 | 342.23 | 342.26 | | | | | |
| 01-Sep-93 | 342.33 | 345.94 | 343.69 | | | | 341.87 | 342.38 | 341.91 | 342.22 | 342.26 | | | | | |
| 02-Sep-93 | 342.34 | 346.27 | 343.70 | | | | 341.93 | 342.41 | 341.96 | 342.26 | 342.30 | | | | | |
| 03-Sep-93 | 342.38 | 346.37 | 343.76 | | | | 341.97 | 342.45 | 341.99 | 342.32 | 342.36 | | | | | |
| 07-Sep-93 | 342.50 | 346.49 | 343.71 | | | | 342.08 | 342.60 | 342.05 | 342.44 | 342.44 | | | | | |
| 08-Sep-93 | 342.56 | 346.52 | 343.75 | | | | 342.12 | 342.64 | 342.10 | 342.45 | 342.50 | | | | | |
| 09-Sep-93 | 342.59 | 347.14 | 343.75 | | | | 342.14 | 342.67 | 342.06 | 342.43 | 342.41 | | | | | |
| 10-Sep-93 | 342.55 | 347.13 | 343.77 | | | | 342.08 | 342.60 | 341.93 | 342.30 | 342.24 | | | | | |
| 13-Sep-93 | 342.48 | 347.09 | 343.75 | | | | 341.93 | 342.54 | 341.85 | 342.03 | 341.92 | | | | | |
| 14-Sep-93 | 342.40 | 347.14 | 343.80 | | | 341.49 | 341.87 | 342.54 | 341.85 | 342.00 | 341.90 | 341.70 | | | | |
| 15-Sep-93 | 342.42 | 346.97 | 343.80 | | | 342.06 | 341.87 | 342.44 | 341.78 | 342.04 | 341.99 | 341.90 | | | | |
| 16-Sep-93 | 342.47 | 347.18 | 343.81 | | | 342.23 | 341.86 | 342.46 | 341.80 | 342.12 | 342.07 | 342.01 | | | | |
| 17-Sep-93 | 342.46 | 347.18 | 343.87 | | | 342.16 | 341.86 | 342.46 | 341.80 | 341.97 | 341.89 | 342.09 | | | | |
| 20-Sep-93 | 342.39 | 347.27 | 343.89 | | | 342.19 | 341.85 | 342.40 | 341.78 | 341.89 | 341.82 | 342.18 | | | | |
| 21-Sep-93 | 342.35 | 347.33 | 343.95 | | | 342.09 | 341.85 | 342.38 | 341.76 | 341.88 | 341.82 | 342.18 | | | | |
| 22-Sep-93 | 342.33 | 347.34 | 343.92 | | | 342.09 | 341.87 | 342.34 | 341.75 | 341.86 | 341.79 | 342.20 | | | | |
| 23-Sep-93 | 342.31 | 347.32 | 344.00 | | | 342.05 | 341.86 | 342.35 | 341.75 | 341.87 | 341.82 | 340.20 | | | | |
| 24-Sep-93 | 342.27 | 347.38 | 343.92 | | | 341.88 | 341.86 | 342.34 | 341.72 | 341.73 | 341.78 | 340.49 | | | | |
| 27-Sep-93 | 342.26 | 347.43 | 343.95 | | | 341.96 | 341.92 | 342.28 | 341.74 | 341.85 | 341.78 | 341.30 | | | | |
| 28-Sep-93 | 342.20 | 347.47 | 344.02 | | | 342.05 | 341.85 | 342.23 | 341.70 | 341.80 | 341.77 | 341.49 | | | | |
| 29-Sep-93 | 342.26 | 347.43 | 344.01 | | | 342.11 | 341.86 | 342.19 | 341.68 | 341.78 | 341.76 | 341.67 | | | | |
| 30-Sep-93 | 342.23 | 347.39 | 343.96 | | | 342.08 | 341.83 | 342.20 | 341.69 | 341.78 | 341.75 | 341.78 | | | | |
| 01-Oct-93 | 342.32 | 347.42 | 344.02 | | | 342.02 | 341.78 | 342.18 | 341.73 | 341.83 | 341.77 | 341.83 | | | | |
| 04-Oct-93 | 342.23 | 347.49 | 344.35 | | | 342.02 | 341.75 | 342.25 | 341.68 | 341.82 | 341.76 | 341.98 | | | | |
| 05-Oct-93 | 342.12 | 347.49 | 344.52 | | | 342.13 | 341.83 | 342.17 | 341.63 | 341.74 | 341.75 | 342.03 | | | | |
| 06-Oct-93 | 342.17 | 347.45 | 344.17 | | | 342.13 | 341.79 | 342.19 | 341.67 | 341.77 | 341.75 | 342.03 | | | | |
| 07-Oct-93 | 342.18 | 347.46 | 344.11 | | | 341.99 | 341.73 | 342.22 | 341.70 | 341.81 | 341.76 | 342.02 | | | | |
| 08-Oct-93 | 342.16 | 347.51 | 344.13 | | | 342.03 | 341.76 | 342.22 | 341.70 | 341.82 | 341.78 | 342.05 | | | | |
| 12-Oct-93 | 342.24 | 347.55 | 344.22 | | | 342.10 | 341.73 | 342.24 | 341.68 | 341.82 | 341.77 | 342.07 | | | | |

**Note: All Water Level in mASL**

**Monitor 55-I was replaced by Monitor 55-IR in September 2001. 55-IR was replace in April 2007**

**Monitor 61-I and 66-I were replaced by Monitors 61-IR and 66-IR in April 2007.**

# A5 : Routine Leachate Groundwater Elevations - Eastview Road Landfill Site

| Monitor | 1-I/1-IR | 51-I/51-IR | 59-I | 67-I | 65-I | 51-II | 52-I | 55-I/55-IR | 56-I/56-IR | 57-I | 58-I | 61-I/61-IR | 63-I | 66-I/66-IR | 68-I | 69-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Waste | | | | Fill/ Waste | Outwash | | | | | | | | | | |
| Date | | | | | | | | | | | | | | | | |
| 13-Oct-93 | 342.14 | 347.58 | 344.29 | | | 342.14 | 341.80 | 342.15 | 341.63 | 341.73 | 341.78 | 342.08 | | | | |
| 14-Oct-93 | 342.13 | 347.52 | 344.77 | | | 342.05 | 341.80 | 342.17 | 341.65 | 341.75 | 341.76 | 342.07 | | | | |
| 15-Oct-93 | 342.18 | 347.59 | 344.57 | | | 342.02 | 341.76 | 342.20 | 341.65 | 341.77 | 341.77 | 342.07 | | | | |
| 18-Oct-93 | 342.27 | 347.57 | 344.26 | | | 341.90 | 341.76 | 342.42 | 341.63 | 341.77 | 341.82 | 342.05 | | | | |
| 19-Oct-93 | 342.31 | 347.52 | 344.16 | | | 342.03 | 341.81 | 342.54 | 341.66 | 341.82 | 341.84 | 342.08 | | | | |
| 20-Oct-93 | 342.39 | 347.52 | 344.23 | | | 342.04 | 341.75 | 342.59 | 341.69 | 341.85 | 341.85 | 342.09 | | | | |
| 21-Oct-93 | 342.51 | 347.69 | 344.47 | | | 341.33 | 341.72 | 342.65 | 341.68 | 341.88 | 341.87 | 340.55 | | | | |
| 25-Oct-93 | 342.42 | 347.69 | 344.37 | | | 341.70 | 341.78 | 342.57 | 341.65 | 341.82 | 341.87 | 341.27 | | | | |
| 26-Oct-93 | 342.50 | 347.71 | 344.39 | | | 341.88 | 341.75 | 342.62 | | 341.84 | 341.86 | 341.45 | | | | |
| 27-Oct-93 | 342.39 | 347.77 | 344.98 | | | 342.02 | 341.79 | 342.59 | | 341.88 | 341.87 | 341.64 | | | | |
| 28-Oct-93 | 342.46 | 347.81 | 344.49 | | | 341.99 | 341.80 | 342.59 | | 341.89 | 341.89 | 341.81 | | | | |
| 29-Oct-93 | 342.48 | 347.88 | 344.68 | | | 341.72 | 341.79 | 342.55 | | 341.87 | 341.91 | 341.95 | | | | |
| 01-Nov-93 | 342.16 | 347.83 | 344.02 | | | 341.73 | 341.81 | 342.45 | 341.64 | 342.01 | 341.88 | 342.08 | | | | |
| 03-Nov-93 | 342.38 | 347.90 | 344.45 | | | 341.84 | 341.71 | 342.48 | 341.70 | 341.87 | 341.91 | 342.01 | | | | |
| 04-Nov-93 | 342.30 | 347.92 | 344.48 | | | 342.00 | 341.70 | 342.44 | 341.68 | 341.85 | 341.91 | 341.99 | | | | |
| 05-Nov-93 | 342.26 | 348.00 | 345.07 | | | 341.95 | 341.73 | 342.48 | 341.72 | 341.89 | 341.92 | 340.92 | | | | |
| 08-Nov-93 | 342.30 | 347.65 | 344.39 | | | 341.96 | 341.74 | 342.37 | 341.65 | 341.80 | 341.89 | 341.19 | | | | |
| 09-Nov-93 | 342.29 | 347.74 | 344.76 | | | 341.98 | 341.73 | 342.36 | 341.67 | 341.83 | 341.90 | 341.37 | | | | |
| 10-Nov-93 | 342.27 | 347.75 | 344.84 | | | 342.05 | 341.73 | 342.34 | 341.66 | 341.82 | 341.90 | 341.51 | | | | |
| 15-Nov-93 | 342.27 | 347.75 | 344.92 | | | 341.82 | 341.75 | 342.35 | 341.68 | 341.83 | 341.91 | 341.43 | | | | |
| 16-Nov-93 | 342.27 | 347.76 | 344.93 | | | 341.71 | 341.76 | 342.34 | 341.69 | 341.84 | 341.93 | 341.34 | | | | |
| 17-Nov-93 | 342.27 | 347.77 | 344.95 | | | 341.47 | 341.78 | 342.35 | 341.70 | 341.86 | 341.94 | 341.32 | | | | |
| 18-Nov-93 | 342.18 | 347.70 | 345.09 | | | 341.97 | 341.79 | 342.26 | 341.64 | 341.80 | 341.89 | 341.51 | | | | |
| 19-Nov-93 | 342.26 | 347.81 | 345.16 | | | 341.97 | 341.80 | 342.37 | 341.73 | 341.91 | 341.94 | 342.26 | | | | |
| 23-Nov-93 | 342.18 | 347.62 | 345.13 | | | 341.95 | 341.75 | 342.32 | 341.66 | 341.81 | 341.91 | 341.81 | | | | |
| 24-Nov-93 | 342.16 | 347.66 | 345.17 | | | 341.99 | 341.78 | 342.33 | 341.65 | 341.84 | 341.94 | 341.86 | | | | |
| 25-Nov-93 | 342.14 | 347.58 | 345.13 | | | 342.10 | 341.79 | 342.31 | 341.66 | 341.80 | 341.93 | 341.91 | | | | |
| 26-Nov-93 | 342.22 | 347.67 | 345.14 | | | 342.04 | 341.82 | 342.32 | 341.68 | 341.81 | 341.94 | 341.94 | | | | |
| 29-Nov-93 | 342.26 | 347.74 | 345.22 | | | 341.88 | 341.79 | 342.52 | 341.66 | 341.86 | 342.00 | 341.91 | | | | |
| 30-Nov-93 | 342.19 | 347.63 | 345.17 | | | 342.17 | 341.80 | 342.50 | 341.62 | 342.35 | 341.97 | 341.98 | | | | |
| 01-Dec-93 | 342.30 | 347.58 | 345.21 | | | 342.13 | 341.79 | 342.63 | 341.65 | 342.30 | 341.99 | 341.98 | | | | |
| 02-Dec-93 | 342.41 | 347.75 | 345.25 | | | 342.09 | 341.76 | 342.57 | 341.74 | 342.07 | 342.02 | 342.00 | | | | |
| 03-Dec-93 | 342.34 | 347.65 | 345.24 | | | 342.20 | 341.82 | 342.65 | 341.69 | 341.89 | 342.03 | 342.03 | | | | |
| 06-Dec-93 | 342.45 | 347.76 | 345.29 | | | 342.35 | 341.73 | 342.76 | 341.76 | 341.96 | 342.14 | 342.00 | | | | |
| 07-Dec-93 | 342.37 | 347.74 | 345.25 | | | 342.25 | 341.74 | 342.67 | 341.68 | 341.88 | 341.96 | 342.03 | | | | |
| 10-Dec-93 | 342.53 | 347.78 | 345.37 | | | 341.95 | 341.78 | 342.75 | 341.79 | 341.96 | 342.02 | 342.04 | | | | |
| 13-Dec-93 | 342.39 | 347.65 | 345.31 | | | 342.18 | 341.78 | 342.70 | 341.70 | 341.90 | 342.02 | 342.09 | | | | |
| 14-Dec-93 | 342.41 | 347.84 | 345.30 | | | 342.20 | 341.80 | 342.74 | 341.73 | 341.93 | 342.03 | 342.09 | | | | |
| 15-Dec-93 | 342.39 | 347.84 | 345.29 | | | 342.28 | 341.76 | 342.73 | 341.70 | 341.91 | 342.03 | 342.10 | | | | |
| 16-Dec-93 | 342.32 | 347.77 | 345.24 | | | 342.21 | 341.77 | 342.64 | 341.67 | 341.86 | 342.02 | 342.12 | | | | |
| 17-Dec-93 | 342.34 | 347.76 | 345.30 | | | 342.15 | 341.78 | 342.69 | 341.71 | 341.90 | 342.00 | 342.12 | | | | |
| 20-Dec-93 | 342.34 | 347.80 | 345.29 | | | 342.18 | 341.78 | 342.71 | 341.70 | 341.88 | 342.01 | 342.11 | | | | |
| 21-Dec-93 | 342.39 | 347.90 | 345.29 | | | 341.79 | 341.78 | 342.68 | 341.74 | 341.95 | 342.04 | 342.02 | | | | |
| 22-Dec-93 | 342.35 | 347.84 | 345.36 | | | 342.11 | 341.80 | 342.59 | 341.70 | 341.93 | 342.02 | 342.03 | | | | |
| 23-Dec-93 | 342.36 | 347.79 | 345.28 | | | 342.20 | 341.79 | 342.55 | 341.66 | 341.90 | 341.98 | 342.06 | | | | |
| 20-Jan-94 | 342.49 | 347.88 | 345.27 | | | 342.08 | 341.73 | 342.19 | 341.63 | 341.75 | 341.87 | 341.39 | | | | |
| 17-Feb-94 | 342.57 | 347.93 | 345.61 | | | 342.81 | 341.82 | 342.27 | 341.73 | 341.97 | 341.99 | 341.65 | | | | |

**Note: All Water Level in mASL**

**Monitor 55-I was replaced by Monitor 55-IR in September 2001. 55-IR was replace in April 2007**

**Monitor 61-I and 66-I were replaced by Monitors 61-IR and 66-IR in April 2007.**

# A5 : Routine Leachate Groundwater Elevations - Eastview Road Landfill Site

| Monitor | 1-I/1-IR | 51-I/51-IR | 59-I | 67-I | 65-I | 51-II | 52-I | 55-I/55-IR | 56-I/56-IR | 57-I | 58-I | 61-I/61-IR | 63-I | 66-I/66-IR | 68-I | 69-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Waste | | | | Fill/ Waste | Outwash | | | | | | | | | | |
| Date | | | | | | | | | | | | | | | | |
| 22-Feb-94 | | | | | | | | 342.48 | 341.75 | | | | | | | |
| 01-Mar-94 | 341.59 | | | | | | | 342.05 | 341.70 | | | | | | | |
| 08-Mar-94 | 341.52 | | | | | | | 341.53 | 341.64 | | | | | | | |
| 16-Mar-94 | 341.02 | 348.05 | 345.61 | | | 341.84 | 341.93 | 341.48 | 341.61 | 341.79 | 341.92 | 341.08 | | | | |
| 23-Mar-94 | 340.90 | | | | | | | 341.38 | 341.55 | | | | | | | |
| 05-Apr-94 | 341.28 | | | | | | | 341.80 | 341.58 | | | | | | | |
| 11-Apr-94 | 341.84 | 347.93 | 345.67 | | | 341.62 | 341.45 | 341.84 | 341.54 | 341.86 | 342.09 | 341.53 | | | | |
| 19-Apr-94 | 342.11 | | | | | | | 342.37 | 341.97 | | | | | | | |
| 27-Apr-94 | 343.11 | | | | | | | 342.38 | 342.14 | | | | | | | |
| 05-May-94 | 342.11 | | | | | | | 341.85 | 341.68 | | | | | | | |
| 10-May-94 | 341.89 | | | | | | | 341.65 | 341.26 | | | | | | | |
| 16-May-94 | 341.75 | 347.63 | 345.64 | | | 342.18 | 341.56 | 341.56 | 341.05 | 341.83 | 342.10 | 341.92 | | | | |
| 25-May-94 | 341.68 | | | | | | | 341.45 | 340.90 | | | | | | | |
| 02-Jun-94 | 341.75 | | | | | | | 341.70 | 341.51 | | | | | | | |
| 07-Jun-94 | 341.72 | | | | | | | 341.60 | 341.20 | | | | | | | |
| 16-Jun-94 | 341.60 | | | | | | | 341.40 | 340.97 | | | | | | | |
| 21-Jun-94 | 341.52 | 347.87 | 345.64 | | | 341.69 | 341.60 | 341.30 | 340.84 | 342.06 | 342.14 | 341.50 | | | | |
| 28-Jun-94 | 341.47 | | | | | | | 341.23 | 340.88 | | | | | | | |
| 07-Jul-94 | 341.42 | | | | | | | 341.24 | 340.76 | | | | | | | |
| 13-Jul-94 | 341.37 | | | | | | | 341.16 | 340.70 | | | | | | | |
| 18-Jul-94 | 341.93 | 347.87 | 345.66 | | | 342.21 | 341.44 | 341.11 | 340.69 | 341.96 | 342.18 | 341.66 | | | | |
| 27-Jul-94 | 341.40 | | | | | | | 341.03 | 340.70 | | | | | | | |
| 03-Aug-94 | 341.42 | | | | | | | 341.02 | 340.64 | | | | | | | |
| 11-Aug-94 | 341.31 | | | | | | | 340.96 | 340.61 | | | | | | | |
| 15-Aug-94 | 341.23 | 347.82 | 345.64 | | | 341.97 | 341.27 | 340.93 | 340.61 | 341.92 | 341.82 | 341.53 | | | | |
| 26-Aug-94 | 341.22 | | | | | | | 340.93 | 340.61 | | | | | | | |
| 08-Sep-94 | 341.08 | | | | | | | 340.82 | 340.53 | | | | | | | |
| 15-Sep-94 | 341.09 | | | | | | | 340.79 | 340.54 | | | | | | | |
| 23-Sep-94 | 341.10 | 347.81 | 345.62 | | | 341.87 | 341.39 | 340.78 | 340.59 | 341.94 | 341.80 | 341.50 | | | | |
| 30-Sep-94 | 340.99 | | | | | | | 340.67 | 340.59 | | | | | | | |
| 06-Oct-94 | 341.01 | | | | | | | 340.74 | 340.62 | | | | | | | |
| 13-Oct-94 | 341.05 | | | | | | | 340.75 | 340.63 | | | | | | | |
| 19-Oct-94 | 341.09 | 347.94 | 345.64 | | | 341.64 | 341.32 | 340.75 | 340.64 | 341.89 | 341.65 | 341.52 | | | | |
| 26-Oct-94 | 341.28 | | | | | | | 340.76 | 340.64 | | | | | | | |
| 03-Nov-94 | 341.62 | | | | | | | 340.77 | 340.65 | | | | | | | |
| 11-Nov-94 | 341.23 | | | | | | | 340.97 | 340.94 | | | | | | | |
| 16-Nov-94 | 341.16 | 347.62 | 345.62 | | | 341.59 | 341.17 | 341.00 | 340.67 | 341.62 | 341.70 | 341.30 | | | | |
| 25-Nov-94 | 341.09 | | | | | | | 340.94 | 340.56 | | | | | | | |
| 30-Nov-94 | 341.09 | | | | | | | 340.91 | 340.55 | | | | | | | |
| 07-Dec-94 | 341.13 | | | | | | | 340.92 | 340.50 | | | | | | | |
| 16-Dec-94 | 341.13 | | | | | | | 340.79 | 340.51 | | | | | | | |
| 20-Dec-94 | 341.22 | 347.56 | 345.68 | | | 341.89 | 341.22 | 340.80 | 340.43 | 341.52 | 341.82 | 341.39 | | | | |
| 28-Dec-94 | 341.13 | | | | | | | 340.77 | 340.44 | | | | | | | |
| 05-Jan-95 | 341.09 | | | | | | | 340.76 | 340.45 | | | | | | | |
| 12-Jan-95 | 341.11 | | | | | | | 340.74 | 340.52 | | | | | | | |
| 18-Jan-95 | 341.62 | 347.39 | 345.70 | | | 342.09 | 341.21 | 341.62 | 341.51 | 341.62 | 342.04 | 340.80 | | | | |
| 25-Jan-95 | 341.55 | | | | | | | 341.37 | 341.27 | | | | | | | |

**Note: All Water Level in mASL**

**Monitor 55-I was replaced by Monitor 55-IR in September 2001. 55-IR was replace in April 2007**

**Monitor 61-I and 66-I were replaced by Monitors 61-IR and 66-IR in April 2007.**

# A5 : Routine Leachate Groundwater Elevations - Eastview Road Landfill Site

| Monitor | 1-I/1-IR | 51-I/51-IR | 59-I | 67-I | 65-I | 51-II | 52-I | 55-I/55-IR | 56-I/56-IR | 57-I | 58-I | 61-I/61-IR | 63-I | 66-I/66-IR | 68-I | 69-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Waste | | | | Fill/ Waste | Outwash | | | | | | | | | | |
| Date | | | | | | | | | | | | | | | | |
| 02-Feb-95 | 341.07 | | | | | | | 341.14 | 340.71 | | | | | | | |
| 09-Feb-95 | 340.71 | | | | | | | 341.04 | 340.65 | | | | | | | |
| 15-Feb-95 | 340.72 | 347.56 | 345.85 | | | 342.22 | 341.26 | 340.99 | 340.56 | 341.65 | 341.90 | 341.55 | | | | |
| 23-Feb-95 | 340.89 | | | | | | | 340.88 | 340.57 | | | | | | | |
| 28-Feb-95 | 341.15 | | 345.76 | | | | | 340.81 | 340.53 | | | | 342.90 | | | |
| 08-Mar-95 | 341.06 | | 345.77 | | | | | 340.89 | 340.50 | | | | 342.89 | | | |
| 13-Mar-95 | 341.00 | 347.36 | 345.78 | | | 342.07 | 341.18 | 340.75 | 340.38 | 341.58 | 342.00 | 341.50 | 342.88 | | | |
| 21-Mar-95 | 341.02 | | 345.79 | | | | | 340.78 | 340.40 | | | | 342.88 | | | |
| 29-Mar-95 | 341.23 | | 345.84 | | | | | 340.99 | 340.58 | | | | 342.90 | | | |
| 06-Apr-95 | 341.17 | | 345.84 | | | | | 340.90 | 340.56 | | | | 342.89 | | | |
| 11-Apr-95 | 341.05 | 347.39 | 345.83 | | | 342.07 | 341.19 | 340.87 | 340.56 | 341.64 | 342.02 | 341.08 | 342.88 | | | |
| 18-Apr-95 | 341.15 | | 345.85 | | | | | 340.79 | 340.52 | | | | 342.87 | | | |
| 05-May-95 | 341.31 | | 345.77 | | | | | 340.99 | 340.53 | | | | 342.87 | | | |
| 11-May-95 | 341.33 | 347.59 | 345.81 | | | 342.13 | 341.18 | 340.98 | 340.51 | 341.66 | 342.02 | 341.52 | 342.89 | | | |
| 15-May-95 | 341.32 | | 345.79 | | | | | 341.06 | 340.71 | | | | 342.89 | | | |
| 26-May-95 | 341.27 | | 345.79 | | | | | 340.87 | 340.52 | | | | 342.87 | | | |
| 01-Jun-95 | 341.27 | | 345.83 | | | | | 340.97 | 340.70 | | | | 342.87 | | | |
| 07-Jun-95 | 341.14 | | 345.84 | | | | | 340.86 | 340.53 | | | | 342.86 | | | |
| 14-Jun-95 | 341.10 | | 345.84 | | | | | 340.85 | 340.50 | | | | 342.86 | | | |
| 21-Jun-95 | 341.21 | 347.43 | 345.82 | | | 342.05 | 341.17 | 340.84 | 340.56 | 341.59 | 342.04 | 341.41 | 342.86 | | | |
| 29-Jun-95 | 341.04 | | 345.90 | | | | | 340.75 | 340.50 | | | | 342.85 | | | |
| 05-Jul-95 | 341.02 | | 345.92 | | | | | 340.72 | 340.47 | | | | 342.85 | | | |
| 11-Jul-95 | 341.08 | | 345.87 | | | | | 340.70 | 340.50 | | | | 342.83 | | | |
| 17-Jul-95 | 341.18 | 347.49 | 345.91 | 344.23 | 342.60 | 342.05 | 341.07 | 340.87 | 340.67 | 341.53 | 341.92 | 341.13 | 342.81 | 342.87 | | |
| 26-Jul-95 | 341.15 | | 345.88 | 342.73 | 342.92 | | | 340.85 | 340.57 | | | | 342.82 | 342.88 | | |
| 02-Aug-95 | 341.07 | | 345.85 | 342.69 | 343.13 | | | 340.75 | 340.47 | | | | 342.80 | 342.85 | | |
| 10-Aug-95 | 341.06 | | 345.77 | 342.53 | 343.32 | | | 340.78 | 340.52 | | | | 342.80 | 342.70 | | |
| 15-Aug-95 | 341.19 | 347.30 | 345.93 | 342.67 | 343.39 | 342.03 | 341.09 | 341.05 | 341.07 | 341.70 | 342.13 | 341.35 | 342.78 | 342.85 | | |
| 17-Aug-95 | 341.28 | | 345.79 | 342.53 | 343.26 | | | 341.09 | 341.09 | | | | 342.79 | 342.69 | | |
| 30-Aug-95 | 341.14 | | 345.96 | 342.66 | 343.30 | | | 340.87 | 340.57 | | | | 342.78 | 342.83 | | |
| 06-Sep-95 | 340.93 | | 345.90 | 342.51 | 343.39 | | | 340.80 | 340.40 | | | | 342.77 | 342.68 | | |
| 13-Sep-95 | 340.94 | | 345.88 | 342.50 | 343.44 | | | 340.76 | 340.40 | | | | 342.77 | 342.82 | | |
| 28-Sep-95 | 340.95 | 347.23 | 345.89 | 342.46 | 343.47 | 341.58 | 341.12 | 340.75 | 340.43 | 341.68 | 341.90 | 341.37 | 342.73 | 342.63 | | |
| 04-Oct-95 | 340.95 | | 345.87 | 342.46 | 343.44 | | | 340.77 | 340.42 | | | | 342.75 | 342.65 | | |
| 11-Oct-95 | 340.96 | | 345.89 | 342.48 | 343.47 | | | 340.78 | 340.43 | | | | 342.74 | 342.68 | | |
| 18-Oct-95 | 341.07 | 347.24 | 345.89 | 342.50 | 343.47 | 341.57 | 341.10 | 340.80 | 340.44 | 341.68 | 341.92 | 341.36 | 342.77 | 342.70 | | |
| 25-Oct-95 | 340.80 | | 345.95 | 342.54 | 343.29 | | | 340.53 | 340.33 | | | | 342.96 | 342.61 | | |
| 01-Nov-95 | 340.80 | | 345.96 | 342.58 | 343.45 | | | 340.53 | 340.53 | | | | 342.71 | 342.76 | | |
| 08-Nov-95 | 341.15 | | 345.96 | 342.62 | 343.45 | | | 340.95 | 340.84 | | | | 342.73 | 342.77 | | |
| 15-Nov-95 | 341.33 | | 345.99 | 342.62 | 343.45 | | | 341.26 | 341.30 | | | | 342.72 | 342.77 | | |
| 22-Nov-95 | 341.43 | 347.57 | 345.68 | 342.66 | 343.43 | 342.29 | 341.29 | 341.27 | 341.24 | 341.93 | 342.36 | 341.71 | 342.74 | 342.83 | | |
| 29-Nov-95 | 341.50 | | 345.75 | 342.65 | 343.04 | | | 341.33 | 341.27 | | | | 342.75 | 342.83 | | |
| 06-Dec-95 | 341.88 | | 345.79 | 342.68 | 343.17 | | | 341.45 | 341.40 | | | | 342.81 | 342.84 | | |
| 18-Dec-95 | 341.09 | | 345.83 | 342.72 | 343.28 | | | 341.30 | 341.17 | | | | 342.83 | 342.89 | | |
| 20-Dec-95 | 341.33 | 347.50 | 345.75 | 342.73 | 343.31 | 342.53 | 341.63 | 341.18 | 341.06 | 342.13 | 342.57 | 341.85 | 342.79 | 342.89 | | |
| 27-Dec-95 | 340.93 | | 345.71 | 342.74 | 343.36 | | | 341.08 | 340.94 | | | | 342.79 | 342.89 | | |
| 16-Jan-96 | 340.75 | 347.40 | 345.51 | 342.64 | 343.36 | 341.98 | 341.29 | 340.90 | 340.62 | 341.65 | 341.89 | 341.52 | 342.71 | 342.81 | | |

**Note: All Water Level in mASL**

**Monitor 55-I was replaced by Monitor 55-IR in September 2001. 55-IR was replace in April 2007**

**Monitor 61-I and 66-I were replaced by Monitors 61-IR and 66-IR in April 2007.**

# A5 : Routine Leachate Groundwater Elevations - Eastview Road Landfill Site

| Monitor | 1-I/1-IR | 51-I/51-IR | 59-I | 67-I | 65-I | 51-II | 52-I | 55-I/55-IR | 56-I/56-IR | 57-I | 58-I | 61-I/61-IR | 63-I | 66-I/66-IR | 68-I | 69-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Waste | | | | Fill/ Waste | Outwash | | | | | | | | | | |
| Date | | | | | | | | | | | | | | | | |
| 14-Feb-96 | 340.96 | 347.26 | 345.87 | 342.71 | 343.35 | 342.07 | 341.44 | 341.24 | 341.14 | 341.73 | 341.98 | 341.69 | 342.99 | 342.85 | | |
| 13-Mar-96 | 340.88 | 347.40 | 345.76 | 342.75 | 343.33 | 342.07 | 341.43 | 341.25 | 341.11 | 341.75 | 341.94 | 341.68 | 342.79 | 342.81 | | |
| 11-Apr-96 | 340.86 | 347.29 | 347.76 | 342.64 | 343.28 | 342.09 | 341.42 | 341.19 | 341.09 | 341.73 | 342.02 | 341.65 | 342.78 | 342.78 | | |
| 06-May-96 | 341.19 | 347.41 | 345.76 | 342.75 | 343.16 | 342.23 | 341.60 | 341.55 | 341.55 | 341.96 | 342.20 | 341.85 | 342.86 | 342.85 | | |
| 10-Jun-96 | 341.76 | 347.26 | 345.67 | 342.90 | 343.26 | 342.29 | 341.64 | 341.58 | 341.67 | 342.05 | 342.21 | 341.94 | 342.92 | 342.89 | | |
| 16-Jul-96 | 340.98 | 347.34 | 345.70 | 342.85 | 343.24 | 342.06 | 341.59 | 341.52 | 341.49 | 341.77 | 341.98 | 341.82 | 342.88 | 342.88 | | |
| 12-Aug-96 | 341.59 | 347.52 | 345.68 | 342.80 | 343.29 | 341.99 | 341.51 | 341.45 | 341.35 | 341.67 | 341.89 | 341.77 | 342.86 | 342.82 | | |
| 17-Sep-96 | 341.40 | 347.54 | 345.68 | 342.71 | 343.25 | 342.07 | 341.41 | 341.28 | 341.28 | 341.76 | 342.03 | 341.66 | 342.76 | 342.76 | | |
| 16-Oct-96 | 341.43 | 347.63 | 345.74 | 342.65 | 343.27 | 342.05 | 341.44 | 341.24 | 341.03 | 341.72 | 341.98 | 341.67 | 342.78 | 342.76 | | |
| 13-Nov-96 | 341.36 | 347.49 | 345.89 | 342.63 | 343.27 | 342.21 | 341.41 | 341.19 | 341.11 | 341.69 | 342.06 | 341.75 | 342.78 | 342.75 | | |
| 12-Dec-96 | 341.26 | 347.39 | 345.84 | 342.55 | 343.17 | 342.14 | 341.40 | 341.06 | 340.88 | 341.81 | 342.07 | 341.66 | 342.73 | 342.75 | | |
| 20-Jan-97 | 341.03 | 347.29 | 345.74 | 342.69 | 343.45 | 342.08 | 341.58 | 341.41 | 341.28 | 341.76 | 341.91 | 341.77 | 342.79 | 342.78 | | |
| 18-Feb-97 | 341.34 | 347.32 | 346.01 | 342.64 | 343.51 | 342.13 | 341.47 | 341.29 | 341.12 | 341.80 | 342.01 | 341.69 | 342.78 | 342.75 | | |
| 21-Mar-97 | 341.27 | 347.44 | 345.90 | 342.76 | 343.55 | 342.25 | 341.69 | 341.74 | 341.69 | 341.88 | 342.12 | 341.93 | 342.89 | 342.81 | | |
| 21-Apr-97 | 341.80 | 347.48 | 345.80 | 342.79 | 343.57 | 342.14 | 341.80 | 341.71 | 341.63 | 341.89 | 342.06 | 341.98 | 342.92 | 342.84 | | |
| 14-May-97 | 341.63 | 347.63 | 346.02 | 342.74 | 343.77 | 342.17 | 341.59 | 341.58 | 341.53 | 341.85 | 342.07 | 341.82 | 342.90 | 342.79 | | |
| 09-Jun-97 | 341.54 | 347.34 | 346.04 | 342.80 | 344.05 | 342.02 | 341.42 | 341.39 | 341.21 | 341.75 | 341.94 | 341.83 | 342.85 | 342.36 | | |
| 15-Jul-97 | 341.22 | 347.42 | 345.90 | 342.62 | 344.27 | 341.94 | 341.28 | 341.05 | 340.79 | 341.59 | 341.85 | 341.58 | 342.73 | 342.71 | | |
| 18-Aug-97 | 341.12 | 348.09 | 346.00 | 342.56 | 344.29 | 341.92 | 341.08 | 340.94 | 340.78 | 341.58 | 342.01 | 341.49 | 342.67 | 342.67 | | |
| 29-Sep-97 | 341.16 | 347.88 | 345.96 | 342.56 | 343.54 | 341.93 | 341.15 | 340.94 | 340.69 | 341.62 | 341.69 | 341.52 | 342.63 | 342.68 | | |
| 20-Oct-97 | 341.06 | 347.71 | 346.07 | 342.46 | 343.41 | 341.74 | 341.13 | 340.79 | 340.55 | 341.43 | 341.61 | 341.41 | 342.57 | 342.59 | | |
| 10-Nov-97 | | 348.09 | 346.09 | 342.37 | 343.03 | 341.90 | Dry | 341.00 | 340.77 | 341.57 | 341.84 | 341.32 | Dry | 342.55 | | |
| 15-Dec-97 | | 347.24 | 346.04 | 342.41 | 343.05 | 341.96 | 341.24 | 341.01 | 340.87 | 341.36 | 341.90 | 341.48 | 342.57 | 342.55 | | |
| 20-Jan-98 | | 347.29 | 346.06 | 342.47 | 343.18 | 342.17 | 341.47 | 341.16 | 341.02 | 341.87 | 342.16 | 341.65 | 342.56 | 342.60 | | |
| 23-Feb-98 | | 347.20 | 346.17 | 342.48 | 343.18 | 342.06 | 341.37 | 341.26 | 341.45 | 341.69 | 342.01 | 341.55 | 342.56 | 342.62 | | |
| 19-Mar-98 | | 347.23 | 346.25 | 342.49 | 343.66 | 342.07 | 341.35 | 341.24 | 340.87 | 341.67 | 342.00 | 341.54 | 342.57 | 342.62 | | |
| 14-Apr-98 | | 347.30 | 346.23 | 342.45 | 344.82 | 342.03 | 341.10 | 340.99 | 340.68 | 341.66 | 341.96 | 341.54 | 342.56 | 342.61 | | |
| 14-May-98 | | 345.67 | 346.17 | 342.40 | 344.36 | 341.96 | 340.52 | 340.86 | 340.59 | 341.57 | 342.13 | 341.41 | 342.56 | 342.57 | | |
| 10-Jun-98 | | 346.42 | 346.20 | 342.38 | 343.64 | 341.86 | 340.52 | 340.77 | 340.52 | 341.51 | 341.80 | 341.37 | 342.44 | 342.55 | | |
| 15-Jul-98 | | 345.16 | 345.32 | 342.35 | 343.27 | 341.87 | 341.11 | 340.74 | 340.53 | 341.48 | 341.84 | 341.34 | 342.56 | 342.51 | | |
| 10-Aug-98 | | 346.19 | 345.27 | 342.04 | 343.17 | 341.76 | 340.52 | 340.67 | 340.46 | 341.39 | 341.68 | 341.28 | 342.44 | 342.47 | | |
| 23-Sep-98 | | 345.41 | 345.51 | 342.23 | 343.06 | 341.73 | 341.11 | 340.57 | 340.41 | 341.23 | 341.53 | 341.17 | 342.56 | 342.42 | | |
| 16-Oct-98 | | 345.50 | 345.56 | 342.19 | 343.02 | 341.63 | 341.11 | 340.53 | 340.38 | 341.23 | 341.56 | 341.14 | 342.56 | 342.37 | | |
| 27-Oct-98 | | | | | | | | | | | | | | | 340.60 | |
| 09-Nov-98 | | 346.08 | 345.64 | 342.16 | 343.01 | 341.61 | 341.11 | 340.49 | 340.40 | 341.35 | 341.53 | 341.15 | 342.56 | 342.34 | | |
| 23-Nov-98 | | | | | | | | | | | | | | | 340.55 | 340.90 |
| 15-Dec-98 | | 345.78 | 346.23 | 342.12 | 342.97 | 341.90 | 341.11 | 340.53 | 340.42 | 341.30 | 341.62 | 341.14 | 342.56 | 342.29 | | |
| 26-Jan-99 | | 346.10 | 346.37 | 342.09 | 342.94 | 341.80 | 341.11 | 340.65 | 340.84 | 341.35 | 341.76 | 341.10 | 342.56 | 342.25 | 340.72 | 341.52 |
| 15-Feb-99 | | 346.41 | 346.68 | 342.09 | 344.65 | 341.78 | 341.11 | 340.74 | 340.58 | 341.43 | 341.84 | 341.17 | 342.56 | 342.25 | 340.78 | 341.52 |
| 16-Mar-99 | | 346.49 | 346.59 | 342.13 | 344.60 | 341.82 | 341.11 | 340.76 | 340.48 | 341.46 | 341.91 | 341.27 | 342.56 | 342.28 | 340.91 | 341.52 |
| 16-Apr-99 | | 346.35 | 346.47 | 342.15 | 343.63 | 341.92 | 341.11 | 340.76 | 340.49 | 341.47 | 341.95 | 341.26 | 342.56 | 342.30 | 340.82 | 340.98 |
| 20-May-99 | | 345.06 | 346.39 | 341.98 | 344.05 | 341.89 | 340.87 | 340.64 | 340.30 | 341.20 | 341.65 | 341.21 | 342.43 | 343.16 | | |
| 23-Jun-99 | | 345.33 | 346.47 | 341.96 | 343.59 | 341.74 | 340.87 | 340.62 | 340.40 | 341.20 | 341.57 | 341.22 | 342.43 | 343.13 | 341.66 | 341.24 |
| 16-Jul-99 | | 345.31 | 346.22 | 341.95 | 343.15 | 341.68 | 340.87 | 340.63 | 340.16 | 341.16 | 341.62 | 341.22 | 342.43 | 343.12 | 341.69 | 341.43 |
| 16-Aug-99 | | 345.73 | 345.79 | 341.92 | 342.90 | 341.60 | 340.87 | 340.55 | 340.14 | 341.09 | 341.44 | 341.17 | 342.43 | 343.09 | | 341.41 |
| 16-Sep-99 | | 345.27 | 345.37 | 341.89 | 342.72 | 341.60 | 340.87 | 340.54 | 340.14 | 341.09 | 341.44 | 341.16 | 342.43 | 343.10 | | |
| 18-Oct-99 | | 345.61 | 345.56 | 341.88 | 342.68 | 341.64 | 340.87 | 340.60 | 340.15 | 341.10 | 341.52 | 341.14 | 342.43 | 343.04 | | |

**Note: All Water Level in mASL**

**Monitor 55-I was replaced by Monitor 55-IR in September 2001. 55-IR was replace in April 2007**

**Monitor 61-I and 66-I were replaced by Monitors 61-IR and 66-IR in April 2007.**

# A5 : Routine Leachate Groundwater Elevations - Eastview Road Landfill Site

| Monitor | 1-I/1-IR | 51-I/51-IR | 59-I | 67-I | 65-I | 51-II | 52-I | 55-I/55-IR | 56-I/56-IR | 57-I | 58-I | 61-I/61-IR | 63-I | 66-I/66-IR | 68-I | 69-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Waste | | | | Fill/ Waste | Outwash | | | | | | | | | | |
| Date | | | | | | | | | | | | | | | | |
| 16-Nov-99 | | 344.85 | 345.97 | 341.91 | 342.67 | 341.68 | 340.87 | 340.69 | 340.23 | 341.21 | 341.71 | 341.27 | 342.43 | 343.06 | | |
| 16-Dec-99 | | 345.80 | 346.32 | 341.95 | 342.65 | 341.71 | 340.87 | 340.84 | 340.43 | 341.25 | 341.72 | 341.33 | 342.43 | 343.08 | 341.87 | 341.64 |
| 27-Jan-00 | | 345.83 | Frozen | 341.94 | 343.00 | 341.81 | 340.87 | 340.79 | 340.42 | 341.13 | 341.59 | 341.20 | 342.43 | 343.10 | N/A | N/A |
| 15-Feb-00 | | 349.23 | Frozen | 341.93 | 343.05 | 341.65 | 340.87 | 340.73 | 340.41 | 341.11 | 341.53 | 341.22 | 342.43 | 343.09 | 341.90 | 341.49 |
| 21-Mar-00 | | Broken | 347.36 | 341.95 | 343.32 | 341.79 | 340.87 | 340.83 | 340.53 | 341.24 | 341.72 | 341.28 | 342.43 | 343.10 | 341.89 | 341.65 |
| 12-Apr-00 | | Broken | 346.78 | 341.96 | 344.97 | 341.78 | 340.87 | 340.79 | 340.49 | 341.21 | 341.71 | 341.31 | 342.43 | 343.11 | 341.90 | 341.64 |
| 25-May-00 | | Broken | 346.40 | 342.00 | 344.93 | 341.53 | 340.87 | 340.89 | 340.60 | 341.31 | 341.80 | 341.37 | 342.43 | 343.19 | 341.86 | 341.64 |
| 19-Jun-00 | | Broken | 346.69 | 341.90 | 344.48 | 342.00 | 340.87 | 341.01 | 340.68 | 341.47 | 342.13 | 341.41 | 342.43 | 343.15 | 341.88 | 341.64 |
| 27-Jul-00 | | Broken | 345.94 | 342.07 | 344.39 | 341.79 | 340.87 | 340.94 | 340.65 | 341.39 | 341.75 | 341.48 | 342.43 | 343.23 | 341.86 | 341.59 |
| 14-Aug-00 | | Broken | 346.04 | 342.08 | 344.00 | 341.86 | 340.87 | 340.92 | 340.64 | 341.35 | 341.77 | 341.43 | 342.43 | 343.23 | 341.87 | 341.60 |
| 21-Sep-00 | | Broken | 345.73 | 342.03 | 343.40 | 341.60 | 340.87 | 340.84 | 340.59 | 341.16 | 341.55 | 341.23 | 342.43 | 343.18 | 341.86 | 341.40 |
| 17-Oct-00 | | Broken | 346.00 | 341.99 | 343.02 | 341.66 | 340.87 | Broken | 340.61 | 341.19 | 341.56 | 341.28 | 342.43 | 343.15 | 341.86 | 341.35 |
| 06-Nov-00 | | Broken | 345.53 | 341.97 | 342.92 | 341.65 | 340.87 | Broken | 340.62 | 341.17 | 341.54 | 341.26 | 342.43 | 343.13 | 341.87 | 341.35 |
| 18-Dec-00 | | Broken | 345.42 | 341.94 | 342.93 | 341.75 | 340.87 | Broken | 340.61 | 341.21 | 341.70 | 341.24 | 342.43 | 343.10 | 341.88 | 341.34 |
| 16-Jan-01 | | Broken | 346.26 | 341.94 | 342.92 | 341.80 | 340.87 | Broken | 340.79 | 341.26 | 341.76 | 341.32 | 342.43 | 343.11 | 341.89 | 341.34 |
| 14-Feb-01 | | Broken | 346.11 | 341.97 | 342.76 | 341.93 | 340.87 | Broken | 340.92 | 341.38 | 341.86 | 341.34 | 342.43 | 343.14 | 341.92 | 341.65 |
| 12-Mar-01 | | Broken | 345.85 | 342.00 | 343.61 | 341.82 | 340.87 | Broken | 340.84 | 341.30 | 341.72 | 341.34 | 342.43 | 343.12 | 341.89 | 341.41 |
| 02-Apr-01 | | Broken | 346.69 | 342.01 | 344.45 | 341.85 | 340.87 | Broken | 341.08 | 341.34 | 341.77 | 341.41 | 342.43 | 343.17 | 341.89 | 341.42 |
| 14-May-01 | | Broken | 346.14 | 342.05 | 344.56 | 341.53 | 340.87 | Broken | 340.82 | 341.34 | 341.72 | 341.41 | 342.43 | 343.19 | 341.93 | 341.58 |
| 25-Jun-01 | | Broken | 346.53 | 342.03 | 344.39 | 341.79 | 340.87 | Broken | 340.88 | 341.29 | 341.72 | 341.41 | 342.43 | 343.18 | 341.95 | 341.57 |
| 26-Jul-01 | | Broken | 345.82 | 341.98 | 343.63 | 341.62 | 340.87 | Decom | 340.77 | 341.17 | 341.48 | 341.25 | 342.43 | 343.12 | 341.93 | 341.51 |
| 13-Aug-01 | | Broken | 346.13 | 341.97 | 343.47 | 341.55 | 340.87 | Decom | 340.85 | 341.16 | 341.45 | 341.30 | 342.43 | 343.09 | 341.91 | 341.45 |
| 19-Sep-01 | | Broken | 346.46 | 341.88 | 342.88 | 341.54 | 340.87 | Decom | N/A | 341.12 | 341.47 | 341.16 | 342.43 | 343.02 | 341.96 | 341.46 |
| 29-Oct-01 | | Broken | 346.59 | 341.89 | 342.83 | 341.71 | 340.87 | 340.97 | Broken | 341.22 | 341.64 | 341.21 | 342.43 | 343.05 | 341.93 | 341.58 |
| 05-Nov-01 | | Broken | 346.81 | 341.96 | 342.82 | 341.74 | 340.87 | 340.95 | Broken | 341.28 | 341.69 | 341.29 | 342.43 | 343.05 | 341.95 | 341.56 |
| 21-Dec-01 | | Broken | 346.34 | 341.94 | 342.70 | 341.50 | 340.87 | 340.98 | Broken | 341.21 | 341.73 | 341.24 | 342.43 | 343.08 | 341.94 | 341.63 |
| 29-Jan-02 | | | 346.58 | 342.03 | 342.77 | 341.78 | 340.87 | 340.96 | Broken | 341.21 | 341.73 | 341.27 | 342.43 | 343.12 | 341.95 | 341.62 |
| 22-Feb-02 | | | 346.95 | 342.10 | 343.59 | 341.92 | 340.87 | 340.96 | Broken | 341.33 | 341.83 | 341.36 | 342.43 | 343.13 | 341.94 | 341.60 |
| 26-Mar-02 | | | 346.85 | 342.09 | 343.91 | 341.83 | 340.87 | 340.97 | Broken | 341.24 | 341.74 | 341.33 | 342.43 | 343.14 | 341.95 | 341.61 |
| 22-Apr-02 | | | 346.21 | 342.14 | 343.68 | 341.83 | 340.87 | 341.03 | Broken | 341.30 | 341.82 | 341.35 | 342.43 | 343.15 | 341.95 | 341.62 |
| 09-May-02 | | | 346.09 | 342.01 | 344.51 | 341.86 | 340.87 | 340.98 | Broken | 341.28 | 341.77 | 341.29 | 342.43 | 343.16 | 341.95 | 341.62 |
| 17-Jun-02 | | | 346.50 | 342.05 | 344.23 | 341.84 | 340.87 | 341.00 | Broken | 341.28 | 341.81 | 341.45 | 342.43 | 343.19 | 341.96 | 341.62 |
| 23-Jul-02 | | | 345.81 | 342.00 | 343.67 | 341.66 | 340.87 | 340.83 | Broken | 341.19 | 341.52 | 341.26 | 342.43 | 343.14 | 341.95 | 341.62 |
| 12-Aug-02 | | | 346.14 | 341.98 | 343.48 | 341.61 | 340.87 | 340.86 | Broken | 341.17 | 341.44 | 341.25 | 342.43 | 343.11 | 341.94 | 341.62 |
| 13-Sep-02 | | | 346.51 | 341.91 | 343.07 | 341.45 | 340.87 | 340.78 | Broken | 341.03 | 341.30 | 340.47 | 342.43 | 343.04 | 341.94 | 341.62 |
| 22-Oct-02 | | | 346.23 | 341.86 | 342.81 | 341.46 | 340.87 | 340.71 | Broken | 341.02 | 341.36 | 341.06 | 342.43 | 343.00 | 341.91 | 341.13 |
| 04-Nov-02 | | | 347.02 | 341.86 | 342.79 | 341.46 | 340.87 | 340.72 | Broken | 341.07 | 341.44 | 341.14 | 342.43 | 343.00 | 341.92 | 341.14 |
| 18-Dec-02 | | | 346.52 | 341.84 | 342.46 | 341.37 | 340.87 | 340.75 | Broken | 340.98 | 341.33 | 341.02 | 342.43 | 342.97 | 341.93 | 341.14 |
| 28-Jan-03 | | | N/A | 341.86 | 342.67 | 341.62 | 340.87 | N/A | Broken | 341.09 | 341.41 | 341.15 | 342.43 | N/A | 341.94 | 341.15 |
| 27-Feb-03 | | | N/A | 341.83 | 342.66 | 341.60 | 340.87 | 340.75 | Broken | 341.06 | 341.39 | 341.15 | 342.43 | N/A | 341.96 | 341.16 |
| 24-Mar-03 | | | 347.73 | 341.84 | 342.56 | 341.68 | 340.87 | 341.07 | Broken | 341.15 | 341.64 | 341.15 | 342.43 | 342.99 | 341.90 | 341.60 |
| 22-Apr-03 | | | 347.76 | 341.87 | 342.56 | 341.76 | 340.87 | 341.05 | | 341.19 | 341.70 | 341.17 | 342.43 | 342.98 | 341.93 | 341.44 |
| 29-May-03 | | 344.42 | 346.86 | 341.92 | 344.89 | 341.87 | 340.87 | 341.56 | 340.62 | 341.29 | 341.77 | 341.33 | 342.43 | broke | 341.90 | 341.61 |
| 23-Jun-03 | | 344.38 | 347.86 | 341.93 | 344.64 | 341.76 | 340.87 | 341.60 | 340.64 | 341.25 | 341.71 | 341.24 | 342.43 | broke | 341.89 | 341.45 |
| 23-Jul-03 | | 344.27 | 346.00 | 341.91 | 344.41 | 341.53 | 340.87 | 340.87 | 340.61 | 341.16 | 341.56 | 341.18 | 342.43 | broke | 341.87 | 341.41 |
| 26-Aug-03 | | | 346.68 | 341.97 | 343.90 | | | 340.91 | 340.64 | 341.10 | 341.47 | 341.18 | 342.43 | broken | 341.88 | 341.41 |
| 02-Sep-03 | | 344.18 | 346.73 | 341.96 | 343.86 | 341.52 | 340.87 | 340.90 | 340.64 | 341.08 | 341.47 | 341.18 | 342.43 | broken | 341.88 | 341.41 |

**Note: All Water Level in mASL**

**Monitor 55-I was replaced by Monitor 55-IR in September 2001. 55-IR was replace in April 2007**

**Monitor 61-I and 66-I were replaced by Monitors 61-IR and 66-IR in April 2007.**

# A5 : Routine Leachate Groundwater Elevations - Eastview Road Landfill Site

| Monitor | 1-I/1-IR | 51-I/51-IR | 59-I | 67-I | 65-I | 51-II | 52-I | 55-I/55-IR | 56-I/56-IR | 57-I | 58-I | 61-I/61-IR | 63-I | 66-I/66-IR | 68-I | 69-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Waste | | | | Fill/ Waste | Outwash | | | | | | | | | | |
| Date | | | | | | | | | | | | | | | | |
| 15-Oct-03 | | 344.17 | 347.64 | 341.94 | 343.20 | 341.56 | 340.87 | 340.85 | | 341.12 | 341.49 | 341.14 | 342.43 | broken | 341.88 | 341.44 |
| 03-Nov-03 | | 344.27 | 348.45 | 342.02 | 343.46 | 341.20 | 340.87 | 341.00 | 340.64 | 341.24 | 341.58 | 341.25 | 342.43 | broken | 341.89 | 341.45 |
| 23-Dec-03 | | 344.26 | 346.79 | 342.10 | 344.51 | 341.95 | 340.87 | 341.00 | 340.61 | 341.50 | 342.02 | 341.35 | 342.43 | broken | 341.90 | 341.44 |
| 30-Jan-04 | | 344.19 | frozen | 342.06 | frozen | 341.82 | 340.87 | 340.88 | 340.59 | 341.29 | 341.74 | 341.20 | 342.43 | broken | 341.88 | 341.44 |
| 24-Feb-04 | | 344.23 | Frozen | 342.10 | Frozen | 341.88 | 340.87 | 340.85 | 340.58 | 341.30 | 341.80 | 341.29 | 342.43 | Broken | 341.88 | 341.44 |
| 31-Mar-04 | | 344.25 | 348.48 | 342.17 | 344.73 | 342.00 | 340.87 | 341.76 | 340.87 | 341.47 | 341.92 | 341.48 | 342.43 | broken | 341.88 | 341.44 |
| 19-Apr-04 | | 344.23 | 348.10 | 342.16 | 344.74 | 341.84 | 340.87 | 341.69 | 340.63 | 341.29 | 341.92 | 341.51 | 342.43 | broken | 341.88 | 341.45 |
| 17-May-04 | | 344.27 | 346.95 | 342.18 | 344.93 | 341.92 | 340.87 | 342.05 | 340.65 | 341.33 | 341.83 | 341.40 | 342.43 | broken | 341.87 | 341.43 |
| 07-Jun-04 | | 344.39 | 347.00 | 342.21 | 344.50 | 342.58 | Dry | 341.80 | 340.03 | 341.30 | 341.76 | 341.34 | | broken | | |
| 18-Jun-04 | | 344.30 | 346.97 | 342.19 | 344.67 | 341.91 | 340.87 | 341.89 | 340.26 | 341.32 | 341.79 | 341.37 | 342.43 | broken | 341.87 | 341.44 |
| 06-Jul-04 | | 344.31 | 347.00 | 342.21 | 344.50 | 342.58 | 340.87 | 341.80 | 340.03 | 341.30 | 341.76 | 341.34 | 342.43 | broken | 341.88 | 341.45 |
| 23-Aug-04 | | 344.32 | 346.52 | 342.20 | 343.64 | 341.85 | 340.87 | 339.39 | 340.87 | 341.33 | 341.72 | 341.45 | 342.43 | broken | 341.86 | 341.42 |
| 27-Sep-04 | | 344.31 | 347.18 | 342.17 | 343.69 | 341.80 | 340.87 | 339.62 | 340.83 | 341.25 | 341.55 | 341.42 | 342.43 | broken | 341.87 | 341.45 |
| 15-Oct-04 | | 344.29 | 347.22 | 342.16 | 343.66 | 341.81 | 340.87 | 339.62 | 340.83 | 341.25 | 341.61 | 341.45 | 342.43 | broken | 341.87 | 341.44 |
| 01-Nov-04 | | 344.26 | 347.32 | 342.13 | 343.56 | 341.82 | 340.87 | 339.64 | 340.82 | 341.24 | 341.67 | 341.49 | 342.43 | broken | 341.86 | 341.44 |
| 21-Dec-04 | | 344.34 | 347.00 | 342.15 | 343.41 | 341.95 | 340.87 | 341.81 | 340.85 | 341.36 | 341.80 | 341.58 | 342.43 | broken | 341.88 | 341.44 |
| 13-Jan-05 | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 24-Feb-05 | 340.98 | 344.40 | 348.35 | 342.21 | 344.68 | 342.04 | 340.87 | 341.92 | 340.86 | 341.41 | 341.86 | frozen | 342.43 | broken | 341.87 | 341.45 |
| 21-Mar-05 | 340.96 | 344.38 | 348.09 | 342.21 | 344.70 | 342.02 | 340.87 | 341.90 | 340.84 | 341.37 | 341.85 | 341.53 | 342.43 | broken | 341.87 | 341.45 |
| 11-Apr-05 | 340.92 | 344.33 | 347.68 | 342.23 | 344.70 | 341.96 | 340.87 | 341.85 | 340.78 | 341.32 | 341.85 | 341.46 | 342.43 | broken | 341.88 | 341.44 |
| 18-May-05 | 340.91 | 344.38 | 346.88 | 342.26 | 345.20 | 342.00 | 340.87 | 340.04 | 340.80 | 341.33 | 341.86 | 341.46 | 342.43 | broken | 341.88 | 341.44 |
| 21-Jun-05 | 340.91 | 344.37 | 347.54 | 342.26 | 345.13 | 341.95 | 340.87 | 341.81 | 340.79 | 341.29 | 341.81 | 341.42 | 342.43 | broken | 341.87 | 341.44 |
| 28-Jul-05 | 340.95 | 344.38 | 346.56 | 342.24 | 344.68 | 341.95 | 340.87 | 339.44 | 340.93 | 341.44 | 341.76 | 342.45 | 342.43 | broken | 341.86 | 341.44 |
| 31-Aug-05 | 340.95 | 344.49 | 347.15 | 342.20 | 344.20 | 342.38 | 340.87 | 339.61 | 340.84 | 341.23 | 340.57 | 342.28 | 342.43 | broken | 341.86 | 341.44 |
| 21-Sep-05 | 340.87 | 344.45 | 346.75 | 342.17 | 343.87 | 341.72 | 340.87 | 341.72 | 340.84 | 341.18 | 341.47 | 342.81 | 342.43 | broken | 341.86 | 341.44 |
| 28-Oct-05 | 340.91 | 344.39 | 346.86 | 341.96 | 343.62 | 341.63 | 340.87 | 341.72 | 340.84 | 341.23 | 341.60 | 343.92 | Dry | broken | 341.87 | 341.44 |
| 15-Nov-05 | 340.80 | 344.31 | 346.93 | 342.13 | 343.78 | 341.83 | 340.87 | 341.52 | 340.58 | 341.04 | 341.56 | 343.69 | Dry | broken | 341.86 | 341.44 |
| 20-Dec-05 | 341.00 | 344.39 | 346.85 | 342.20 | 343.80 | 342.17 | 340.87 | 341.78 | 340.83 | 341.59 | 342.08 | 345.11 | Dry | broken | 341.87 | 341.45 |
| 23-Jan-06 | 340.95 | 344.44 | 347.19 | 342.28 | 344.29 | 342.08 | 340.87 | 341.83 | 340.78 | 341.45 | 341.90 | 343.91 | 342.43 | broken | 341.86 | 341.44 |
| 20-Feb-06 | ########## | Not Completed | Not Complete | Not Complete | Not Completed | Not Complete | Not Complete | Not Completed | Not Completed | Not Complete | Not Complete | Not Complete | Not Complete | Not Complete | Not Complete | Not Complete |
| 21-Mar-06 | 340.90 | 344.47 | 347.20 | 342.36 | 345.87 | 342.09 | 340.87 | 341.78 | 340.86 | 341.40 | 341.88 | 342.75 | 342.43 | broken | 341.87 | 341.44 |
| 24-Apr-06 | 340.84 | 344.43 | 347.41 | 342.30 | 346.16 | 341.97 | 340.87 | 341.62 | 340.68 | 341.22 | 341.95 | 342.90 | 342.38 | broken | 341.86 | 341.44 |
| 26-May-06 | 340.75 | 343.87 | 346.80 | 341.82 | 345.59 | 341.51 | 340.87 | 341.18 | 340.75 | 341.27 | 341.78 | 342.26 | 342.43 | broken | 341.87 | 341.45 |
| 07-Jun-06 | 340.90 | 344.60 | 346.96 | 342.54 | 346.11 | 342.23 | 340.87 | 341.87 | 340.92 | 341.46 | 341.80 | 342.25 | 342.65 | broken | 341.86 | 341.44 |
| 28-Jul-06 | 340.83 | 344.69 | 350.34 | 342.55 | 345.52 | 342.17 | 340.87 | 341.75 | 340.92 | 341.41 | 341.86 | Dry | 342.65 | broken | 341.86 | 341.47 |
| 30-Aug-06 | 340.85 | 344.66 | 350.61 | 342.55 | 345.40 | 342.04 | 340.87 | 341.76 | 340.96 | 341.35 | 341.81 | Dry | 342.65 | broken | 341.86 | 341.48 |
| 26-Sep-06 | 340.70 | 344.64 | 347.58 | 342.54 | 345.13 | 342.09 | 340.87 | 341.40 | 340.87 | 341.33 | 341.81 | Dry | 342.65 | broken | 341.86 | 341.54 |
| 31-Oct-06 | 340.77 | 344.72 | 347.07 | 342.59 | 345.57 | 342.33 | 340.87 | 341.57 | 340.84 | 341.48 | 342.07 | 347.09 | 342.65 | broken | 341.86 | 341.51 |
| 24-Nov-06 | 340.76 | 344.62 | 348.53 | 342.61 | 345.64 | 342.24 | 340.87 | 341.69 | 340.92 | 341.65 | 342.16 | 347.08 | 342.64 | broken | 341.86 | 341.51 |
| 18-Dec-06 | 340.75 | 344.70 | 347.38 | 342.65 | 345.53 | 342.22 | 340.87 | 341.44 | 340.76 | 341.40 | 341.94 | 347.16 | 342.64 | broken | 341.86 | 341.51 |
| 22-Jan-07 | 340.81 | 344.83 | 347.70 | 342.75 | 346.12 | 342.34 | 340.87 | 341.56 | 340.84 | 341.49 | 342.00 | 347.10 | 342.64 | broken | 341.87 | 341.49 |
| 27-Feb-07 | 340.80 | 344.83 | 347.81 | 342.81 | 345.51 | 342.26 | 340.87 | 341.45 | 340.83 | 341.38 | 341.89 | 347.21 | 342.93 | broken | 341.86 | 341.47 |
| 26-Mar-07 | 340.76 | 344.86 | 348.43 | 342.85 | 345.29 | 342.44 | 341.01 | 341.53 | 341.15 | 341.53 | 342.08 | 348.11 | 342.95 | broken | 341.88 | 341.58 |
| 10-Apr-07 | 340.75 | 344.92 | 348.43 | 342.87 | 345.29 | 342.45 | 341.01 | 341.53 | 341.15 | 341.53 | 342.08 | 348.11 | 342.95 | broken | 341.86 | 341.61 |
| 22-May-07 | 340.75 | 344.83 | 347.20 | 342.88 | 346.14 | 342.31 | 340.87 | 340.63 | 340.59 | 341.39 | 341.97 | 341.55 | 342.93 | 343.31 | 341.88 | 341.55 |
| 18-Jun-07 | 340.90 | 344.89 | 347.56 | 342.74 | 346.14 | 342.31 | 340.87 | 340.62 | 340.60 | 341.40 | 341.92 | 341.57 | 342.98 | 343.38 | 341.86 | 341.54 |
| 26-Jul-07 | 340.75 | 344.85 | 347.63 | 342.84 | 346.17 | 342.04 | 340.87 | 340.53 | 340.57 | 341.21 | 341.59 | 341.47 | 342.90 | 343.26 | 341.93 | 341.10 |

**Note: All Water Level in mASL**

**Monitor 55-I was replaced by Monitor 55-IR in September 2001. 55-IR was replace in April 2007**

**Monitor 61-I and 66-I were replaced by Monitors 61-IR and 66-IR in April 2007.**

# A5 : Routine Leachate Groundwater Elevations - Eastview Road Landfill Site

| Monitor | 1-I/1-IR | 51-I/51-IR | 59-I | 67-I | 65-I | 51-II | 52-I | 55-I/55-IR | 56-I/56-IR | 57-I | 58-I | 61-I/61-IR | 63-I | 66-I/66-IR | 68-I | 69-I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Unit | Waste | | | | Fill/ Waste | Outwash | | | | | | | | | | |
| Date | | | | | | | | | | | | | | | | |
| 13-Aug-07 | 340.75 | 344.83 | 348.12 | 342.82 | 345.65 | 341.98 | 340.87 | 340.51 | 340.55 | 341.19 | 341.61 | 341.47 | 342.88 | 343.23 | 341.92 | 341.10 |
| 27-Sep-07 | 340.73 | 344.76 | 348.32 | 342.63 | 345.31 | 341.87 | 340.87 | 340.41 | 340.51 | 341.11 | 341.46 | 341.36 | 342.70 | 343.00 | 341.91 | 341.10 |
| 22-Oct-07 | 340.69 | 344.73 | 347.14 | 342.57 | 344.95 | 341.85 | 340.87 | 340.39 | 340.51 | 341.10 | 341.49 | 341.30 | 342.63 | 342.92 | 341.84 | 341.12 |
| 15-Nov-07 | 340.71 | 344.80 | 347.78 | 342.53 | 344.66 | 341.89 | 340.87 | 340.39 | 340.51 | 341.16 | 341.46 | 341.30 | 342.58 | 342.86 | 341.81 | 341.12 |
| 14-Dec-07 | 340.76 | 344.71 | 347.76 | 342.50 | 345.02 | 342.02 | 340.87 | 340.44 | 340.45 | 341.23 | 341.73 | 341.34 | 342.52 | 342.79 | 341.81 | 341.47 |
| 29-Jan-08 | 341.25 | 344.96 | 348.73 | 342.59 | 345.65 | 342.29 | 340.87 | 340.87 | 340.97 | 341.50 | 341.96 | 341.68 | 342.68 | 342.97 | 341.84 | 341.57 |
| 25-Feb-08 | 341.03 | 344.87 | 347.58 | 342.70 | 346.14 | 342.31 | 340.87 | 340.72 | 340.71 | 341.45 | 341.98 | 341.58 | 342.78 | 343.01 | 341.83 | 341.53 |
| 31-Mar-08 | 341.03 | 344.95 | 347.25 | 342.75 | 346.18 | 342.42 | 340.87 | 340.70 | 340.67 | 341.48 | 342.05 | 341.63 | 342.94 | 343.21 | 341.86 | 341.62 |
| 29-Apr-08 | 341.05 | 345.02 | 347.67 | 342.87 | 346.22 | 342.45 | 340.87 | 340.88 | 340.87 | 341.49 | 342.00 | 341.68 | 343.09 | 343.33 | 341.84 | 341.56 |
| 22-May-08 | 340.92 | 345.01 | 348.18 | 343.03 | 346.18 | 342.37 | 340.87 | 340.73 | 340.71 | 341.40 | 341.99 | 341.63 | 343.22 | 343.45 | 341.91 | 341.55 |
| 18-Jun-08 | 340.89 | 344.89 | 348.28 | 343.07 | 346.18 | 342.35 | 340.87 | 340.68 | 340.70 | 341.38 | 341.95 | 341.61 | 343.20 | 343.47 | 341.90 | 341.47 |
| 24-Jul-08 | 340.86 | 344.99 | 347.86 | 343.07 | 346.10 | 342.62 | 340.69 | 340.65 | 340.68 | 341.88 | 342.54 | 344.75 | 343.18 | 343.71 | 341.99 | 341.57 |
| 20-Aug-08 | 340.80 | 344.96 | 348.24 | 343.10 | 345.56 | 342.38 | 341.10 | 340.63 | 340.62 | 341.38 | 341.93 | 341.61 | 343.10 | 343.52 | 341.88 | 341.52 |
| 11-Sep-08 | 340.87 | 344.89 | 348.63 | 343.10 | 345.28 | 342.35 | 341.06 | 340.63 | 340.62 | 341.34 | 341.87 | 341.54 | 343.11 | 343.53 | 341.88 | 341.58 |
| 30-Oct-08 | 340.71 | 344.85 | 349.14 | 342.98 | 345.03 | 342.17 | 341.11 | 340.51 | 340.48 | 341.21 | 341.78 | 341.42 | 342.94 | 343.33 | 341.90 | 341.46 |
| 20-Nov-08 | 342.70 | 344.66 | 348.61 | 342.97 | 345.24 | 342.54 | Dry | 340.52 | 340.47 | 341.30 | 340.25 | 341.46 | 342.93 | 343.33 | 341.82 | 341.12 |
| 27-Dec-08 | 340.91 | 345.01 | 348.61 | 342.93 | 346.19 | 342.61 | n/r | 340.70 | 340.53 | 341.57 | 341.92 | 341.59 | 343.01 | 343.50 | 342.03 | 341.61 |
| 26-Jan-09 | 340.82 | 345.09 | 347.72 | 342.96 | 346.14 | 342.29 | 341.11 | 340.54 | 340.46 | 341.30 | 341.89 | 341.49 | 343.08 | 343.37 | 341.89 | 341.49 |
| 25-Feb-09 | 340.90 | 345.27 | 347.37 | 343.01 | 346.12 | 342.35 | 341.11 | 340.59 | 340.52 | 341.37 | 341.93 | 341.58 | 343.12 | 343.44 | 341.90 | 341.52 |
| 31-Mar-09 | 340.82 | 345.19 | 348.53 | 343.01 | 345.49 | 342.33 | 340.89 | 340.57 | 340.47 | 341.33 | 341.95 | 341.49 | 343.09 | 343.39 | 341.96 | 341.55 |
| 27-Apr-09 | 340.73 | 345.08 | 348.56 | 343.11 | 346.06 | 342.36 | dry | 340.61 | 340.52 | 341.36 | 342.02 | 347.58 | 343.14 | 343.50 | 341.91 | 341.58 |
| 31-May-09 | 340.87 | 345.05 | 352.20 | 343.08 | 346.13 | 342.37 | Dry | 340.58 | 340.53 | 341.34 | 342.03 | 341.56 | 343.22 | | 341.91 | 341.53 |
| 22-Jun-09 | 341.09 | 345.19 | 349.37 | 343.15 | 346.14 | 342.33 | dry | 340.52 | 340.52 | 341.30 | 341.94 | 341.59 | 343.26 | 343.56 | 341.79 | 341.50 |
| 31-Jul-09 | 340.72 | 345.17 | 349.61 | 342.87 | 345.94 | 342.25 | dry | 340.39 | 340.50 | 341.23 | 341.78 | 341.53 | 343.22 | 343.49 | 341.78 | 341.50 |
| 24-Aug-09 | N/A | 345.02 | 349.18 | 343.05 | 345.41 | 342.16 | dry | 340.50 | 340.46 | 341.64 | 341.74 | 341.55 | 343.11 | 343.51 | 341.90 | N/A |
| 29-Sep-09 | 340.73 | 345.09 | 348.79 | 342.96 | 345.24 | 342.01 | dry | 340.39 | 340.43 | 341.14 | 341.55 | 341.46 | 342.98 | 343.26 | 341.88 | 341.26 |
| 27-Oct-09 | 340.54 | 345.13 | 348.49 | 342.89 | 344.83 | 342.12 | dry | 340.45 | 340.49 | 341.22 | 341.72 | 341.45 | 342.90 | 343.30 | 341.84 | 341.43 |
| 10-Nov-09 | 340.70 | 345.04 | 348.51 | 342.85 | 344.54 | 342.11 | Dry | 340.49 | 340.44 | 341.23 | 341.73 | 341.41 | 342.80 | 343.25 | 341.85 | 341.43 |
| 08-Dec-09 | 340.75 | 345.07 | 349.30 | 342.85 | 344.60 | 342.14 | N/A | 340.44 | 340.41 | 341.23 | 341.78 | 341.40 | 342.84 | 343.18 | 341.86 | 341.52 |
| 25-Jan-10 | 340.70 | 343.89 | 350.14 | 342.71 | 344.59 | 342.11 | | 340.44 | 340.41 | 341.23 | 341.60 | 341.24 | 342.82 | 343.03 | 341.93 | 341.50 |
| 26-Feb-10 | Dry | 344.86 | 349.17 | 342.70 | 346.10 | 342.05 | Dry | 340.38 | 340.37 | 341.28 | 341.73 | 341.30 | 342.63 | 343.05 | 341.89 | 341.43 |
| 24-Mar-10 | Dry | 344.89 | 348.72 | 342.71 | 345.45 | dry | dry | 340.45 | 340.42 | 341.18 | 341.79 | 341.44 | 342.63 | 343.19 | 341.83 | 341.50 |
| 18-Apr-10 | 340.71 | 345.10 | 349.15 | 342.76 | 346.10 | 342.32 | dry | 340.99 | 340.75 | 341.39 | 341.97 | 341.63 | 342.86 | 343.19 | 341.87 | 341.52 |
| 03-May-10 | 340.94 | 345.04 | 349.65 | 342.75 | 346.09 | 342.40 | dry | 340.61 | 340.64 | 341.29 | 341.98 | 341.57 | 342.87 | 343.17 | 341.84 | 339.46 |
| 20-May-10 | 340.94 | 345.04 | 349.65 | 342.75 | 346.09 | 342.40 | dry | 340.61 | 340.64 | 341.29 | 341.98 | 341.57 | 342.87 | 343.17 | 341.84 | 339.46 |
| 01-Jun-10 | 340.80 | 345.13 | 349.72 | 341.98 | 345.83 | 342.75 | dry | 340.45 | 340.47 | 341.29 | 341.81 | 341.46 | 343.23 | 343.54 | 341.94 | 341.54 |
| 01-Jul-10 | 340.77 | 345.12 | 349.64 | 342.94 | 345.79 | 342.23 | dry | 340.43 | 340.47 | 341.25 | 341.80 | 341.51 | 343.14 | 343.50 | 341.89 | 341.53 |
| 01-Aug-10 | 340.71 | 345.08 | 349.75 | 342.91 | 345.70 | 342.26 | dry | 340.45 | 340.46 | 341.30 | 341.82 | 341.47 | 343.11 | 343.60 | 341.91 | 341.51 |
| 01-Sep-10 | 340.51 | 344.90 | 349.82 | 342.94 | 345.71 | 342.22 | dry | 340.47 | 340.39 | 341.29 | 341.81 | 341.41 | 343.06 | 343.48 | 341.93 | 341.49 |
| 01-Oct-10 | 340.49 | 344.39 | 349.74 | 342.79 | 345.73 | 342.14 | dry | 340.50 | 340.48 | 341.18 | 341.75 | 341.30 | 342.81 | 343.25 | 341.88 | 341.46 |
| 20-Oct-10 | 339.49 | 344.39 | 350.84 | 342.79 | 345.81 | 342.14 | | 340.50 | 340.48 | 341.18 | 341.75 | | 342.76 | 343.15 | 342.08 | 341.46 |
| 10-Nov-10 | 339.73 | 344.33 | 349.65 | 342.74 | 345.50 | 342.01 | dry | 340.42 | 340.43 | 341.10 | 341.73 | 341.21 | 342.75 | 343.17 | 341.77 | 341.27 |
| 16-Dec-10 | 340.29 | 344.70 | 349.19 | 342.76 | 345.42 | 342.09 | | 340.59 | 340.50 | 341.15 | 341.75 | 341.44 | 342.83 | 343.26 | 341.81 | 341.32 |

**Note: All Water Level in mASL**

**Monitor 55-I was replaced by Monitor 55-IR in September 2001. 55-IR was replace in April 2007**

**Monitor 61-I and 66-I were replaced by Monitors 61-IR and 66-IR in April 2007.**

## Table A6: Water Temperatures Taken at Time of Sampling From Groundwater Monitors in 2010

AECOM

| Monitor | Date | Temperature ($C^o$) | Comments | Geological Unit |
|---|---|---|---|---|
| 2-I | 18-May-10 | 21 | | Outwash |
| | 21-Oct-10 | 10.9 | | Outwash |
| 2-II | 21-Oct-10 | N/A | | Outwash |
| 4-IR | 18-May-10 | 18.1 | | Bedrock |
| | 27-Jul-10 | 17.9 | | Bedrock |
| | 26-Oct-10 | 11.4 | | Bedrock |
| 4-IIR | 17-May-10 | 13 | | Lower Till |
| | 26-Oct-10 | 12.3 | | Lower Till |
| | 17-May-10 | 14.8 | | Upper Till |
| | 26-Oct-10 | 12.2 | | Upper Till |
| 5-II | 17-May-10 | 22.1 | | Upper Till |
| | 26-Oct-10 | 12.3 | | Upper Till |
| 9A-I | 27-Oct-10 | 10 | | Bedrock |
| 9-I | 27-Oct-10 | 10.9 | | Outwash |
| 10-II | 19-May-10 | 20.6 | | Outwash |
| | 27-Oct-10 | 10.9 | | Outwash |
| 10-III | 19-May-10 | 19.3 | | Outwash/Peat |
| | 27-Oct-10 | 10.8 | | Outwash/Peat |
| 11-I | 18-May-10 | 18.1 | | Upper Till |
| | 26-Oct-10 | 12.2 | | Upper Till |
| 11-II | 26-Oct-10 | 11.8 | | Outwash |
| 11-III | 26-Oct-10 | 10.9 | | Lower Till |
| 13-I | 27-Oct-10 | 11.4 | | Bedrock |
| 13-II | 27-Oct-10 | 11.1 | | Lower Till |
| 13-III | 19-May-10 | 24.6 | | Upper Till |
| | 27-Oct-10 | 12.1 | | Upper Till |
| 13-IV | 19-May-10 | 25.8 | | Outwash |
| | 27-Oct-10 | 12.3 | | Outwash |
| 13-V | 19-May-10 | 24.9 | | Outwash |
| | 27-Oct-10 | 13.3 | | Outwash |
| 14-II | 19-May-10 | 25 | | Outwash |
| | 02-Nov-10 | 13.3 | | Outwash |
| 14-III | 19-May-10 | 18 | | Outwash |
| | 02-Nov-10 | 12.4 | | Outwash |
| 14-IV | 19-May-10 | 15.4 | | Bedrock |
| | 02-Nov-10 | 20 | | Bedrock |
| 15-I | 25-Oct-10 | 16.2 | | Bedrock |
| 15-II | 25-Oct-10 | 17.5 | | Lower Till |
| 15-III | 18-May-10 | 20.6 | | Upper Till |
| | 25-Oct-10 | 15.1 | | Upper Till |
| 15-IV | 18-May-10 | 18.9 | | Outwash |
| | 25-Oct-10 | 14.6 | | Outwash |
| 15-V | 18-May-10 | 17.4 | | Fill |
| | 25-Oct-10 | 17.4 | | Fill |
| 16-I | 21-Oct-10 | 9.4 | | Lower Till |
| 16-IV | 18-May-10 | 15.1 | | Upper Till |
| | 21-Oct-10 | 9.9 | | Upper Till |

## Table A6: Water Temperatures Taken at Time of Sampling From Groundwater Monitors in 2010

AECOM

| Monitor | Date | Temperature ($C^o$) | Comments | Geological Unit |
|---|---|---|---|---|
| 16-V | 18-May-10 | | INSV | Fill |
| | 21-Oct-10 | | INSV | Fill |
| 16-VI | 21-Oct-10 | 9.4 | | Lower Till |
| 16-VII | 18-May-10 | 30.2 | | Bedrock |
| | 25-Oct-10 | 18.7 | | Bedrock |
| 17-I | 27-Oct-10 | 11 | | Bedrock |
| 17-II | 27-Oct-10 | 13 | | Lower Till |
| 17-III | 27-Oct-10 | 11.1 | | Upper Till |
| 17-IV | 20-May-10 | 21.7 | | Outwash |
| | 27-Oct-10 | 13 | | Outwash |
| 18-III | 20-May-10 | | | Outwash |
| | 27-Oct-10 | 13.7 | | Outwash |
| 19-I | 26-Oct-10 | 12.1 | | Bedrock |
| 19-II | 26-Oct-10 | 12.2 | | Lower Till |
| 19-IV | 26-Oct-10 | 11.8 | | Upper Till |
| 20-IR | 17-May-10 | 19.3 | | Bedrock |
| | 28-Oct-10 | 9.5 | | Bedrock |
| 21-IR | 17-May-10 | 33 | | Upper Till |
| | 28-Oct-10 | 10.1 | | Upper Till |
| 28-I | 20-May-10 | | INSV | Outwash |
| | 28-Oct-10 | 10.1 | | Outwash |
| 30-I | 20-May-10 | 17.6 | | Outwash |
| | 28-Oct-10 | 10.1 | | Outwash |
| 35-I | 20-May-10 | | N/A | Outwash |
| | 28-Oct-10 | 9.2 | | Outwash |
| 37-I | 19-May-10 | 25.6 | | Bedrock |
| | 27-Jul-10 | 24.7 | | Bedrock |
| | 28-Oct-10 | 8.5 | | Bedrock |
| | 06-Dec-10 | 6.1 | | Bedrock |
| 50-I | 19-May-10 | 28.8 | | Bedrock |
| | 27-Jul-10 | 18.3 | | Bedrock |
| | 21-Oct-10 | 9.3 | | Bedrock |
| | 06-Dec-10 | 7.2 | | Bedrock |
| 53-I | 17-May-10 | 14.6 | | Bedrock |
| | 27-Jul-10 | 14.1 | | Bedrock |
| | 26-Oct-10 | 11.8 | | Bedrock |
| | 06-Dec-10 | 6.9 | | Bedrock |
| 53-IIR | 17-May-10 | 14.9 | | Lower Till |
| | 26-Oct-10 | 12.8 | | Lower Till |
| 54-I | 17-May-10 | 20.1 | | Bedrock |
| | 25-Oct-10 | 20.1 | | Bedrock |
| 60-I | 17-May-10 | 19.9 | | Lower Till |
| | 27-Oct-10 | 9.8 | | Lower Till |
| 60-II | 17-May-10 | 17.3 | | Upper Till |
| | 27-Oct-10 | | | Upper Till |
| 60-III | 17-May-10 | 20.6 | | Upper Till |
| | 27-Oct-10 | 11.1 | | Upper Till |

## Table A6: Water Temperatures Taken at Time of Sampling From Groundwater Monitors in 2010

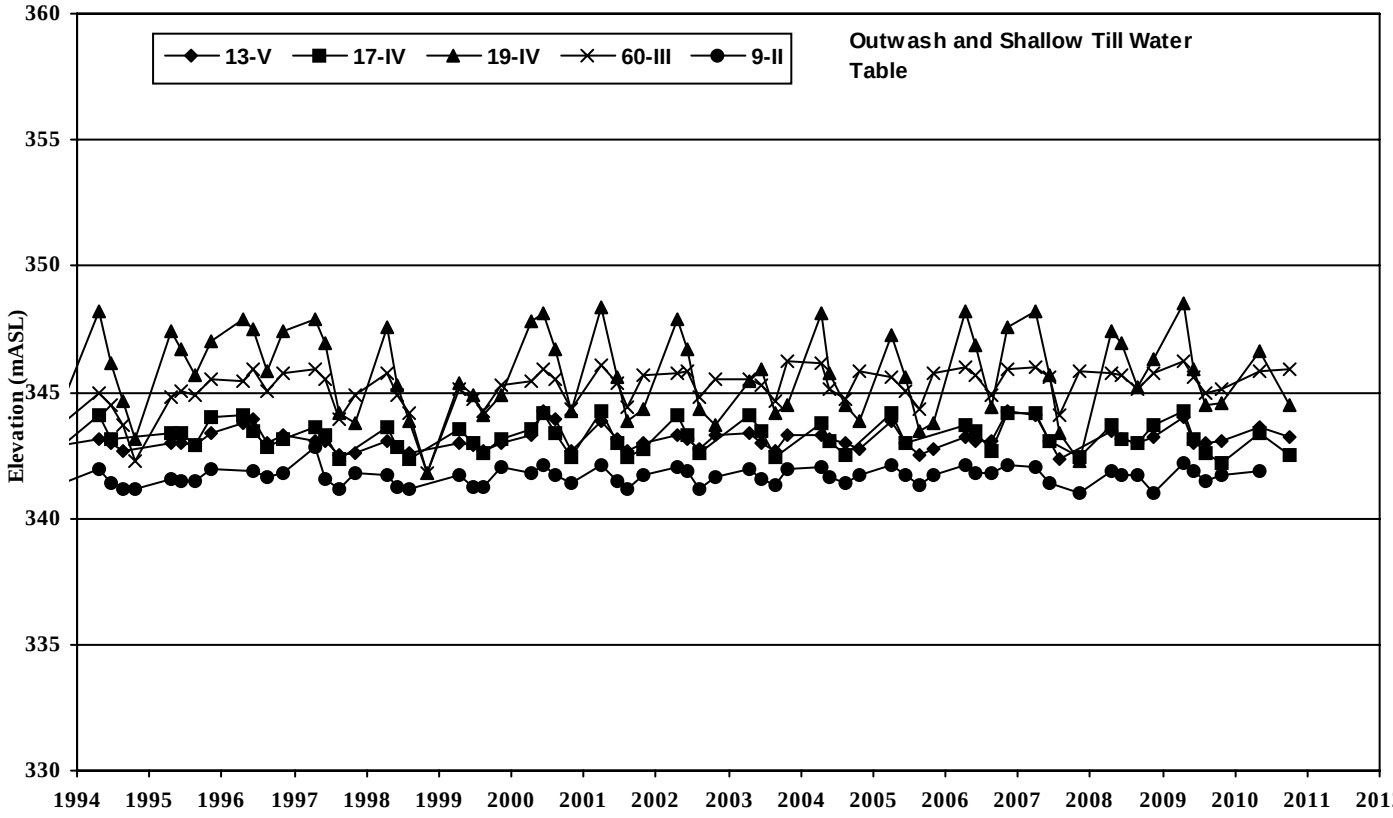
AECOM

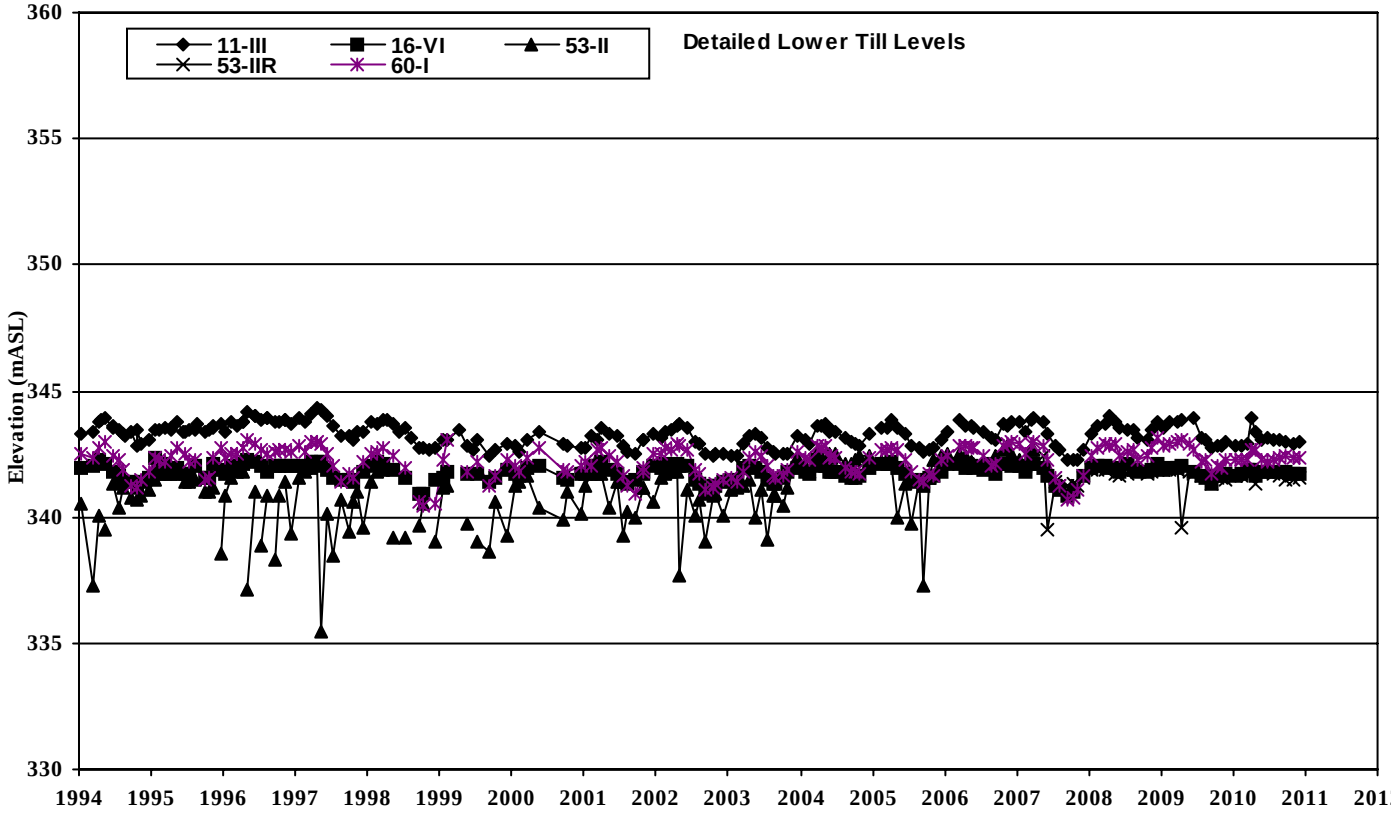
| Monitor | Date | Temperature ($C^o$) | Comments | Geological Unit |
|---|---|---|---|---|
| 90-II | 17-May-10 | 15.1 | | bedrock |
| | 27-Jul-10 | | NA | bedrock |
| | 25-Oct-10 | 10.2 | | bedrock |
| | 06-Dec-10 | | NA | bedrock |
| 91-I | 17-May-10 | 16.6 | | Bedrock |
| | 27-Jul-10 | 19.5 | | Bedrock |
| | 25-Oct-10 | 11.5 | | Bedrock |
| | 06-Dec-10 | 7.7 | | Bedrock |
| 92-I | 19-May-10 | 22.1 | | Bedrock |
| | 20-Oct-10 | | Decom | Bedrock |
| | 06-Dec-10 | | Decom | Bedrock |
| 93-I | 18-May-10 | 17.6 | | Bedrock |
| | 27-Jul-10 | 16.9 | | Bedrock |
| | 20-Oct-10 | 8.1 | | Bedrock |
| | 06-Dec-10 | 7.1 | | Bedrock |
| 94-I | 18-May-10 | 24.2 | | Bedrock |
| | 27-Jul-10 | 17.2 | | Bedrock |
| | 20-Oct-10 | 11.5 | | Bedrock |
| | 06-Dec-10 | 7.4 | | Bedrock |
| 95-I | 18-May-10 | 36.3 | | Bedrock |
| | 27-Jul-10 | 18.1 | | Bedrock |
| | 21-Oct-10 | 10.9 | | Bedrock |
| | 06-Dec-10 | 8 | | Bedrock |
| C2-I | 17-May-10 | 13.5 | | Outwash |
| | 20-Oct-10 | 13.3 | | Outwash |
| C6-I | 18-May-10 | 15.8 | | Outwash |
| | 20-Oct-10 | 8.6 | | Outwash |
| C9-I | 18-May-10 | 15.8 | | Outwash |
| | 20-Oct-10 | 9 | | Outwash |
| C10-I | 18-May-10 | 16.1 | | Outwash |
| | 20-Oct-10 | 12.2 | | Outwash |
| C11-I | 18-May-10 | 21.3 | | Outwash |
| | 20-Oct-10 | 11.8 | | Outwash |
| 1-IR | 20-May-10 | | INSV | Outwash |
| 51-IR | 20-May-10 | 29.8 | | Waste |
| | 02-Nov-10 | 13.3 | | Waste |
| 51-II | 20-May-10 | 26.5 | | Outwash |
| | 02-Nov-10 | 11.4 | | Outwash |
| 55-IR | 20-May-10 | | INSV | Outwash |
| | 02-Nov-10 | | INSV | Outwash |
| 56-IR | 20-May-10 | | INSV | Outwash |
| | 02-Nov-10 | 16.9 | | Outwash |
| 57-I | 20-May-10 | 40.7 | | Outwash |
| | 02-Nov-10 | 11.4 | | Outwash |
| 58-I | 20-May-10 | 35.1 | | Outwash |
| | 02-Nov-10 | 1.6 | | Outwash |
| 59-I | 20-May-10 | 32.8 | | Waste |
| | 02-Nov-10 | 7.9 | | Waste |

## Table A6: Water Temperatures Taken at Time of Sampling From Groundwater Monitors in 2010

AECOM

| Monitor | Date | Temperature ($C^o$) | Comments | Geological Unit |
|---|---|---|---|---|
| 61-IR | 20-May-10 | | INSV | Outwash |
| | 02-Nov-10 | | INSV | Outwash |
| 63-I | 20-May-10 | | INSV | Outwash |
| | 02-Nov-10 | | INSV | Outwash |
| 65-I | 20-May-10 | 33.4 | | Waste/Fill |
| | 02-Nov-10 | 7.9 | | Waste/Fill |
| 66-IR | 20-May-10 | 31.5 | | Outwash |
| | 02-Nov-10 | 12 | | Outwash |
| 67-I | 20-May-10 | 32.4 | | Waste |
| | 02-Nov-10 | 23 | | Waste |



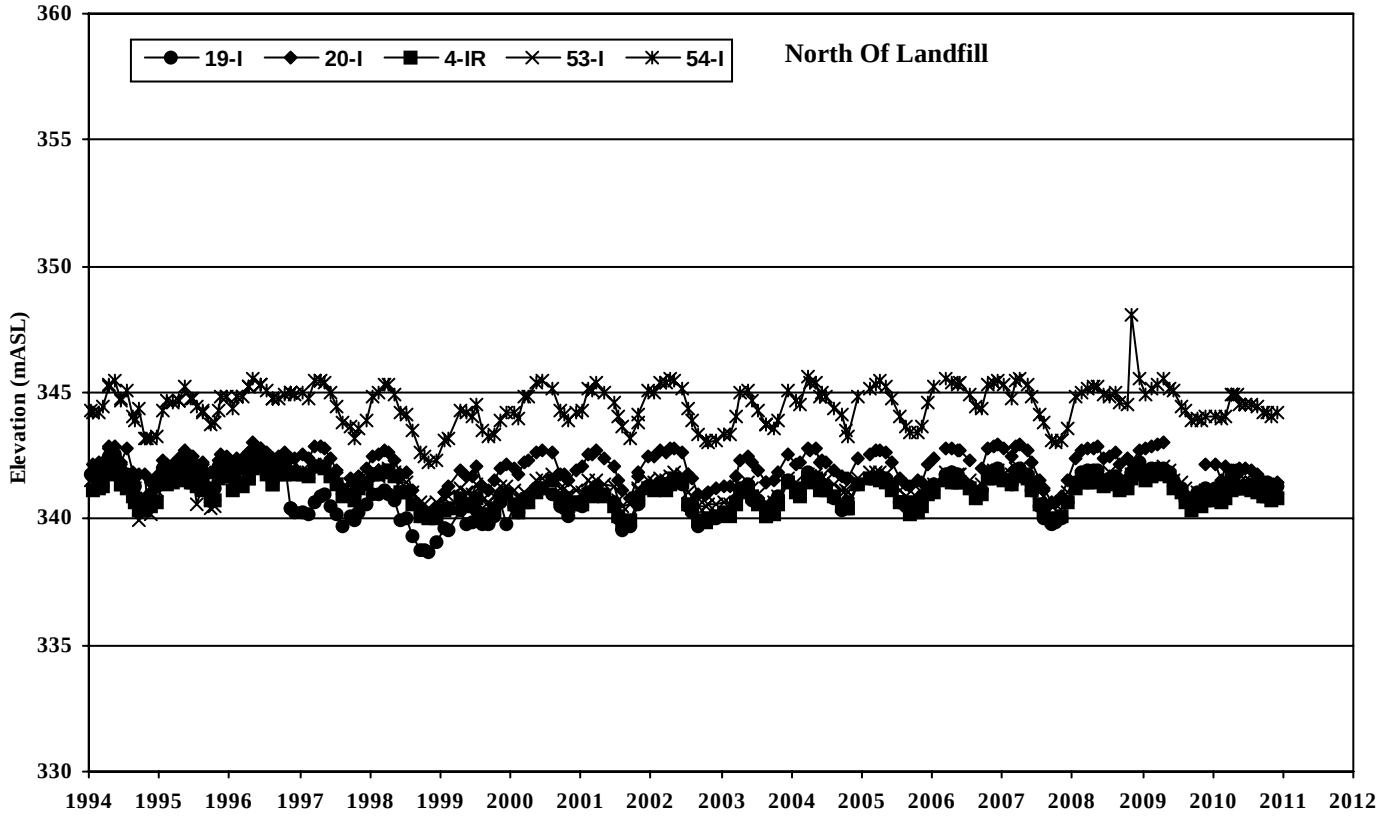

AECOM

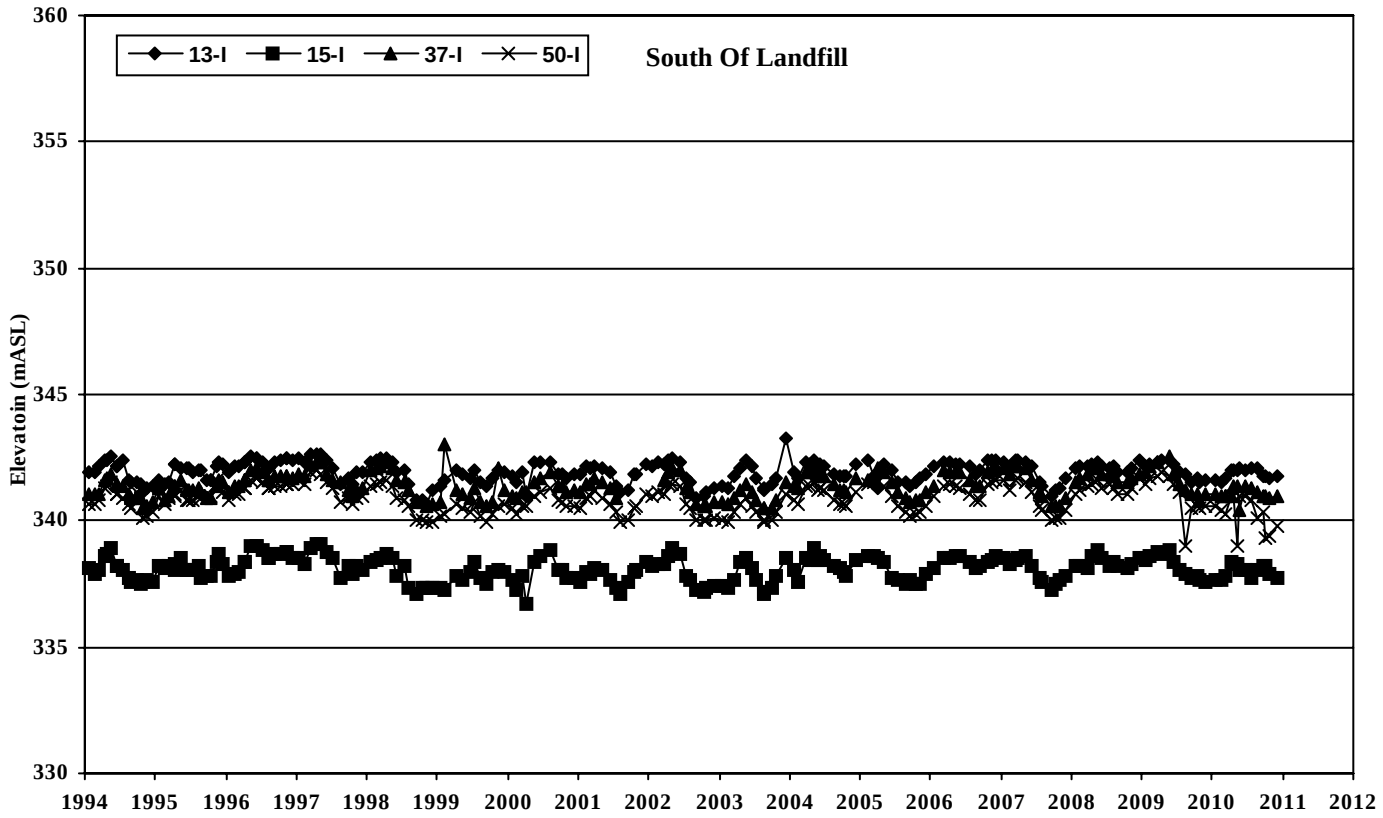
**Eastview Road Landfill Site**

# Groundwater Elevation Trends
## Outwash/Shallow Till and Detailed Lower Till Levels Around the Landfill

**FIGURE**
**A1**

**60191188**
10a Shallow and Detailed Till GW




AECOM

**Eastview Road Landfill Site**

# Groundwater Elevation Trends

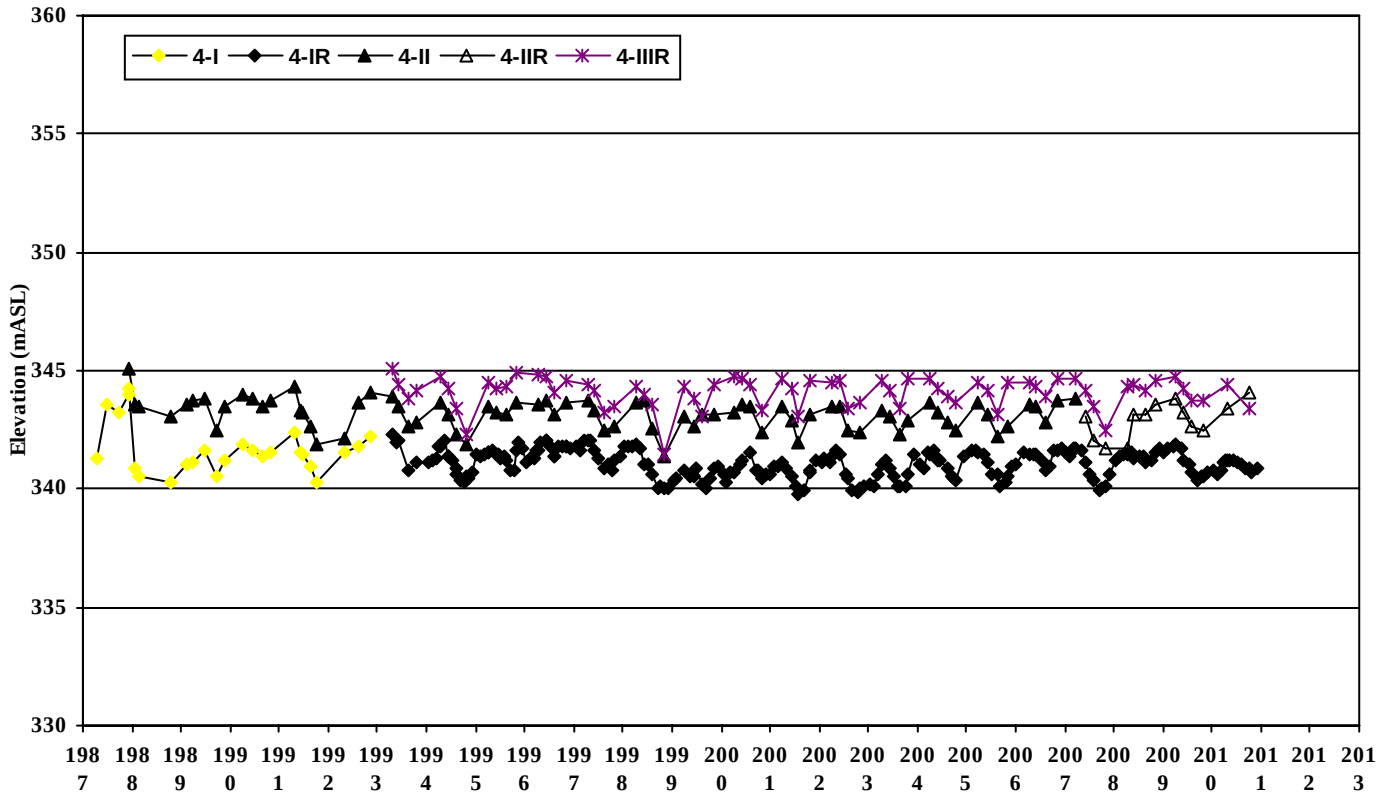
## Detailed Bedrock Levels North and South of the Landfill

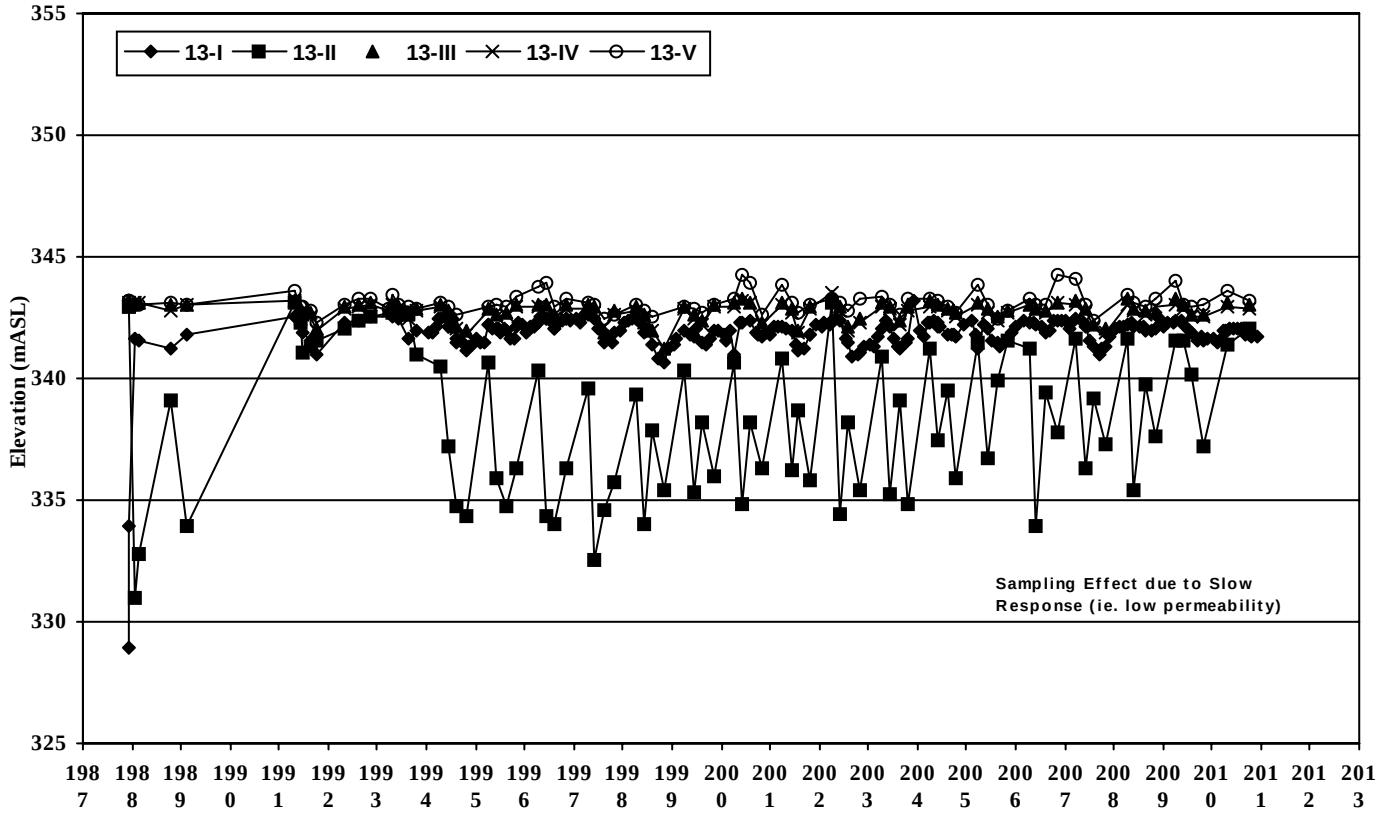
**FIGURE**

**A2**

**60191188**

10a Detailed Bedrock WL



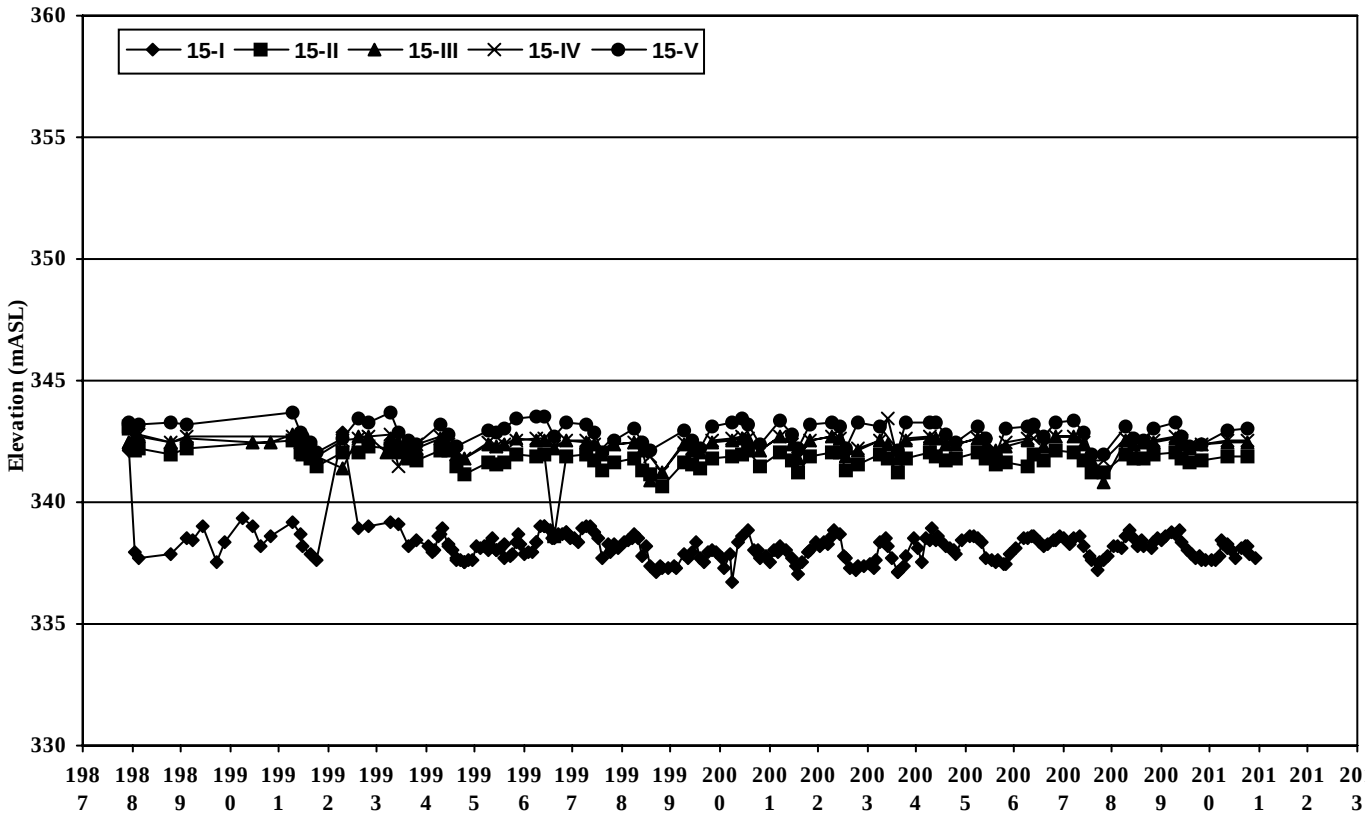

AECOM

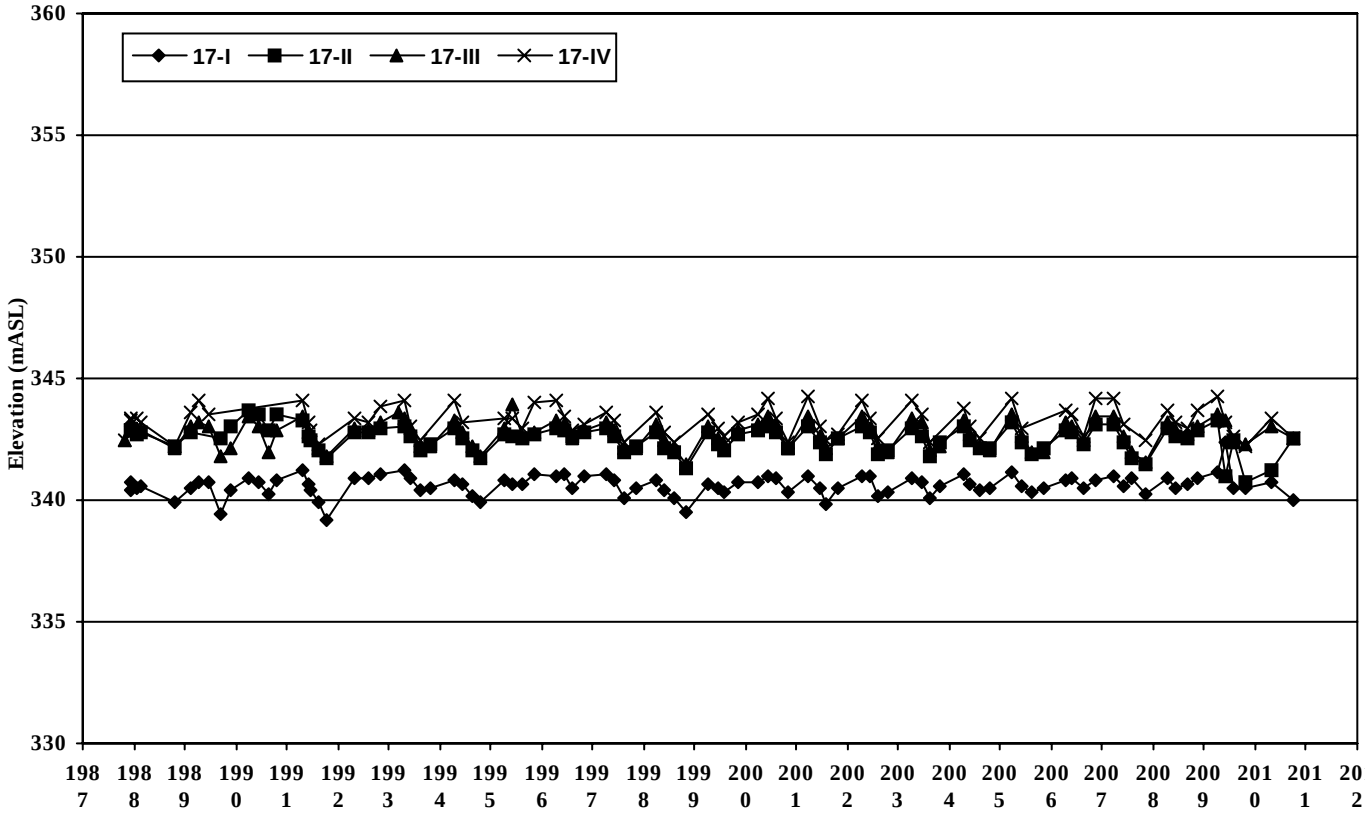
**Eastview Road Landfill Site**

# Groundwater Elevation Trends
## Vertical Profiles at Locations 4 and 13

**FIGURE**
**A3**

**60191188**
10b Profile 4-13




AECOM

**Eastview Road Landfill Site**

# Groundwater Elevation Trends

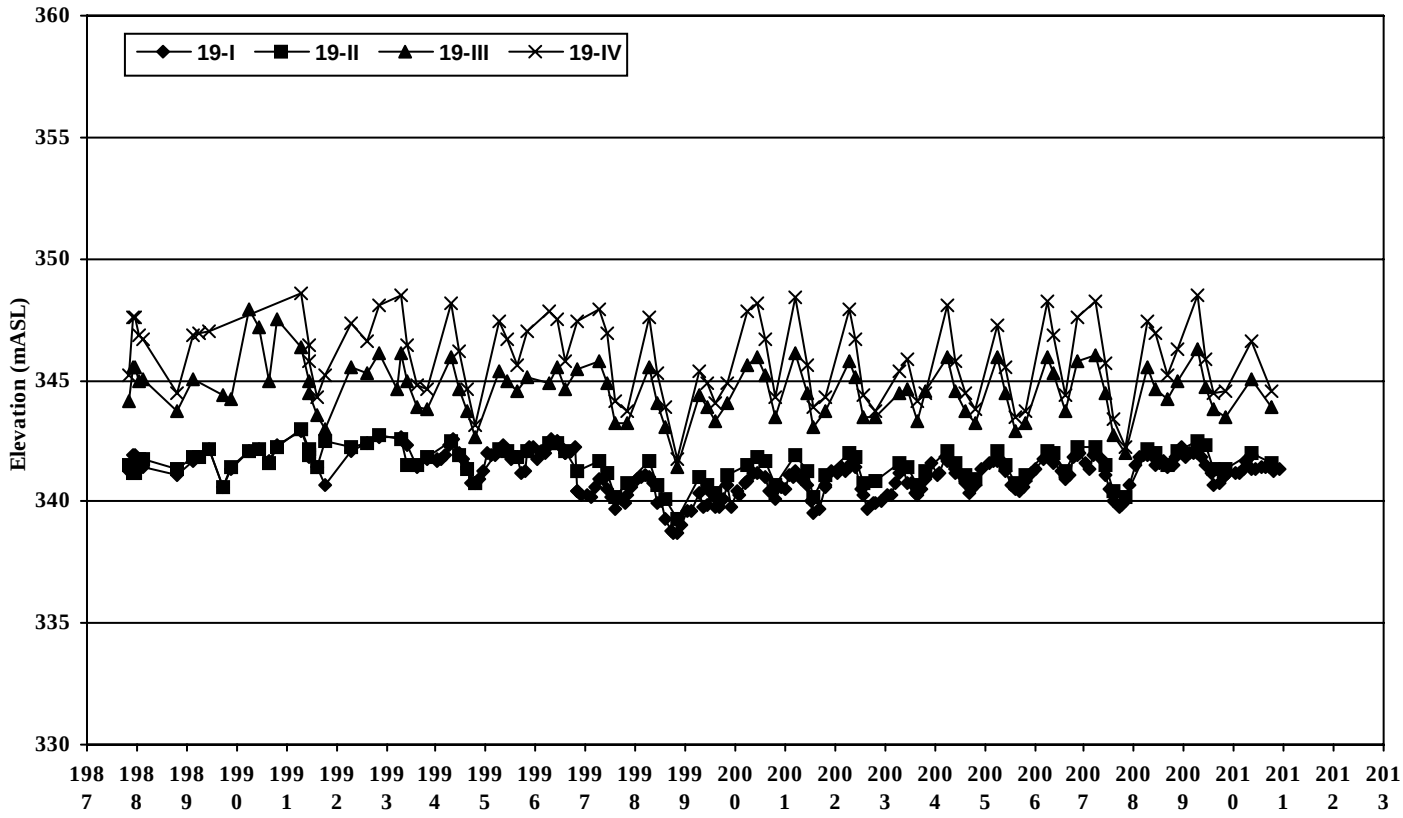
## Vertical Profiles at Locations 15 and 17

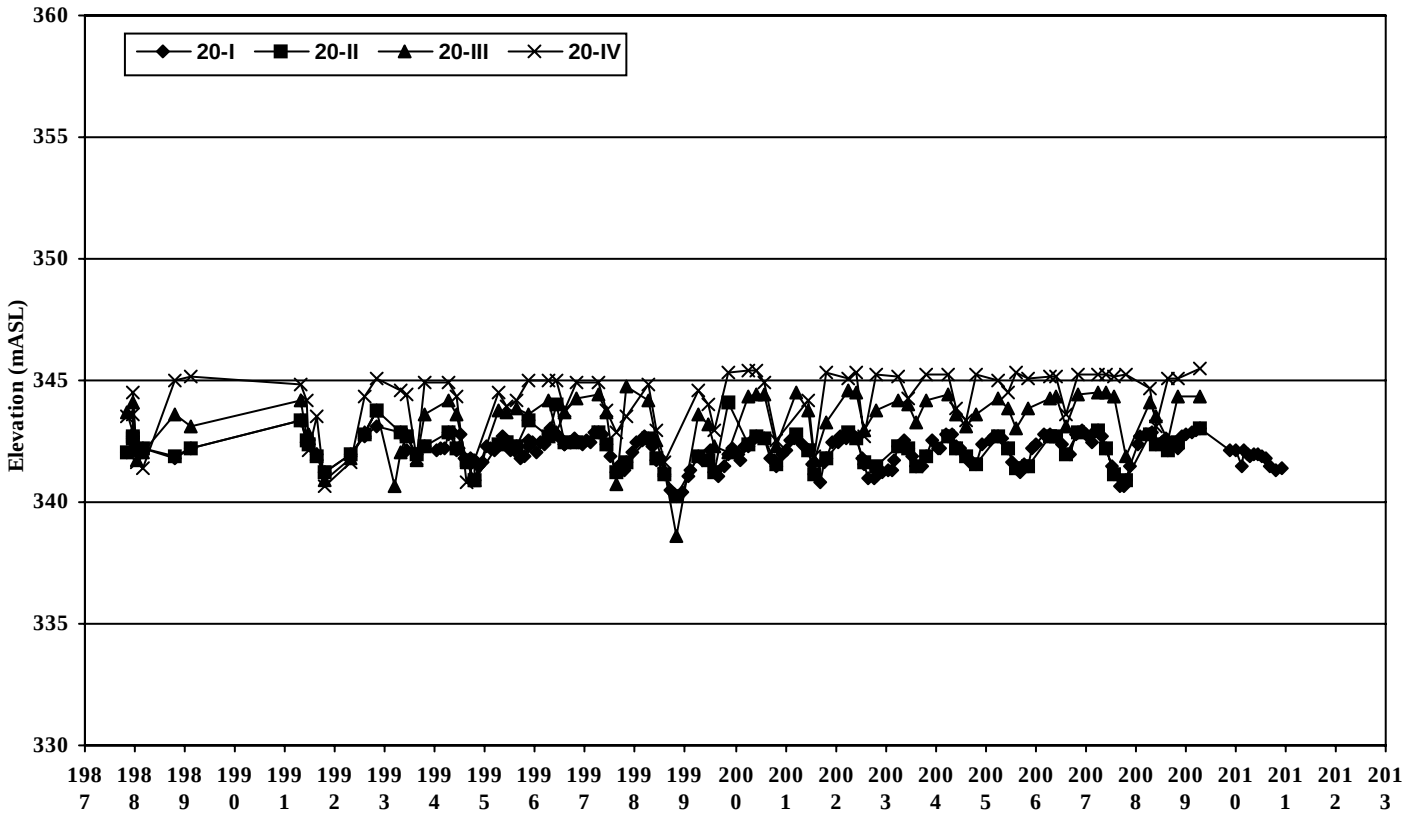
**FIGURE**

**A4**

**60191188**

10b Profile 15-17



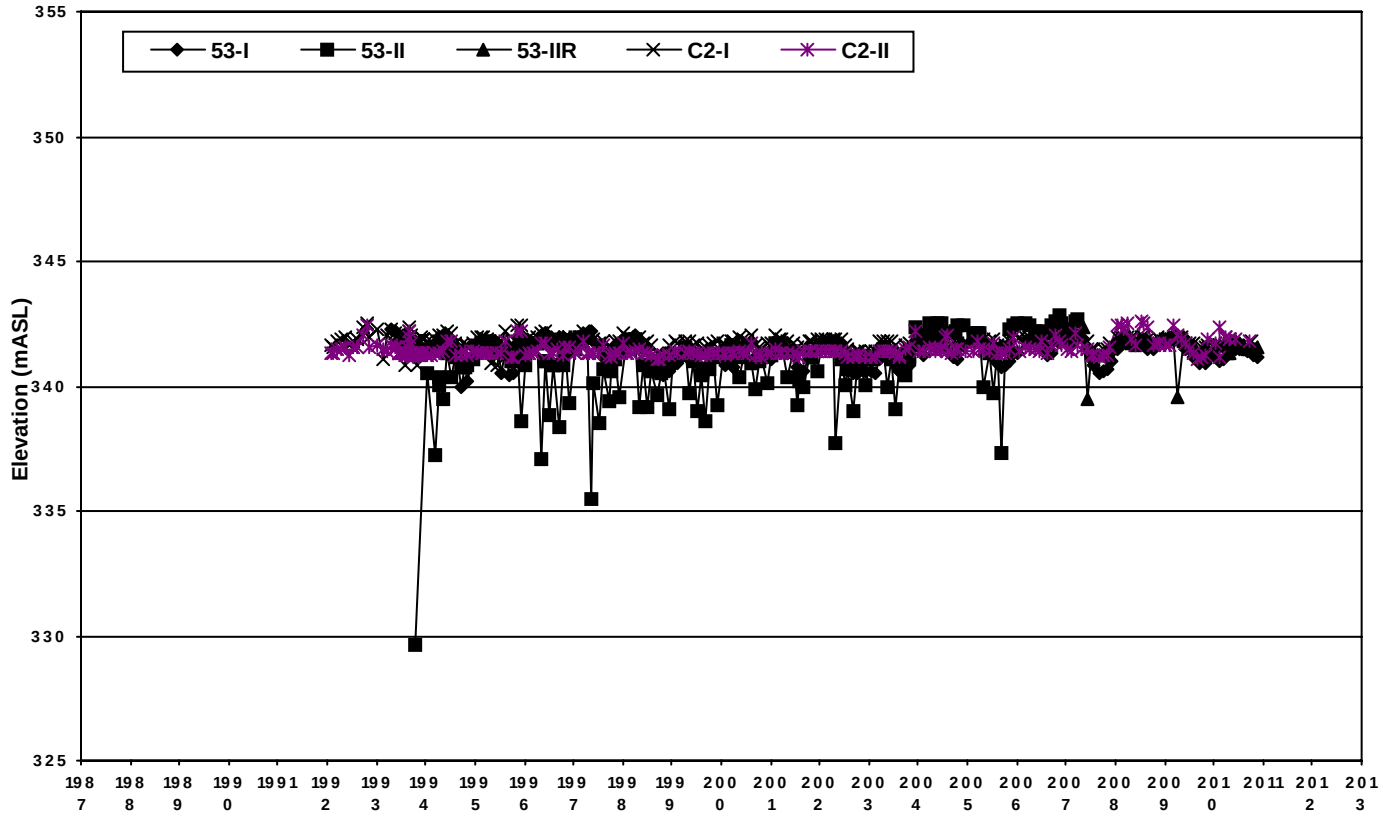

AECOM

**Eastview Road Landfill Site**

**Groundwater Elevation Trends**
**Vertical Profiles at Locations 19 and 20**

**FIGURE**
**A5**

**60191188**
10b Profile 19-20



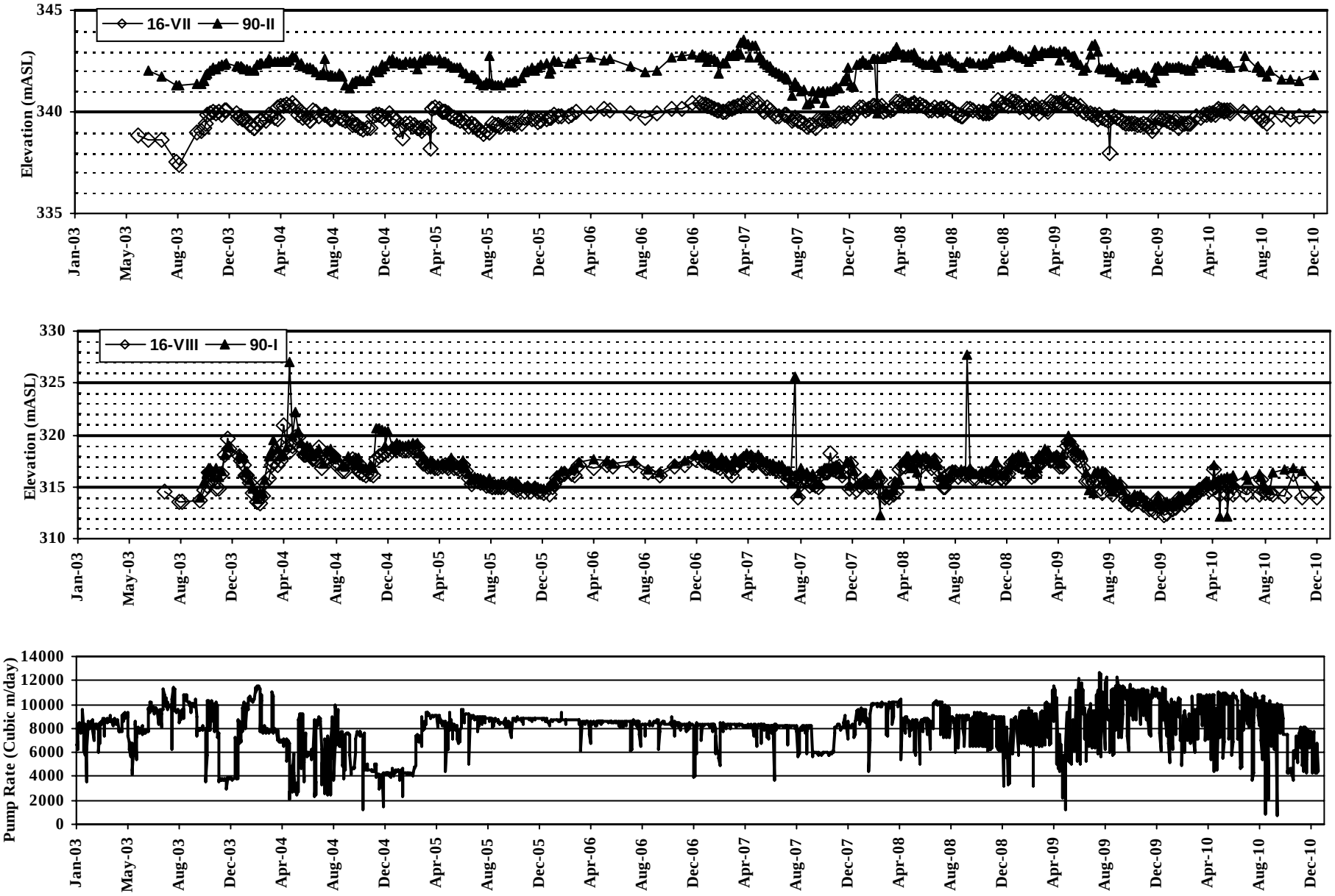

AECOM

**Eastview Road Landfill Site**

**Groundwater Elevation Trends**
**Vertical Profiles at Locations C2/53**

**FIGURE**
**A6**

**60191188**
10b Profile C2/53




AECOM

# Eastview Road Landfill Site

## Bedrock Groundwater Elevations Trends
### In Deep and Shallow Bedrock Aquifer

**FIGURE**
**A7**

**60191188**
12f Rpt DeepAndShallowBedrockGWTrends-16

# Appendix B

## Leachate Collection and Containment System Operating Results

B1. Flow Meter Readings and Summary of Leachate Discharge from the Main Pump Station During 2010

B2. South and West Pump Stations, Hour Meter Readings and Monthly Leachate Flows During 2010

B3. Monthly Leachate Quantities and Average Daily Flow Rates for All Pump Stations During 2010

B4. Manhole Leachate Elevations, South Collection System – 2010

B5. Manhole Leachate Elevations, West Collection System – 2010

## Table B1. Summary of Leachate Discharged from Main Pump Station During 2010

| Reading Date | Flow Meter Reading ($m^3$) | Volume Pumped Off-site This Period ($m^3$) | Main Pump No. 1 Hr Meter Reading (hours) | Main Pump No. 2 Hr Meter Reading (hours) | Main Pump Station Total Pump Time (hours) | Main Pumps Average Pumping Rate ( $m^3$/hr) | Main Station Cumulative Volume This Year ($m^3$) | Remarks |
|---|---|---|---|---|---|---|---|---|
| 29-Dec-09 | 812,807.0 | | 18,980.0 | 18,000.2 | | | | |
| 04-Jan-10 | 824,096.6 | | 19,006.2 | 18,017.8 | | P1 | | Results of pump test: |
| 11-Jan-10 | 832,960.2 | | 19,031.8 | 18,035.4 | | 46.2 | | P1 = 770 Lpm (46.2 $m^3$/hr) |
| 18-Jan-10 | 841,954.1 | | 19,059.0 | 18,055.3 | | | | P2 = 773 Lpm (46.4 $m^3$/hr) |
| 25-Jan-10 | 849,457.9 | | 19,081.7 | 18,070.2 | | P2 | | These numbers are used to |
| 31-Jan-10 | 855,826.3 | 9,958.0 | 19,106.6 | 18,088.7 | | 46.4 | | estimate actual flows until |
| **Jan-10 TOTAL** | | | **126.6** | **88.5** | **215.2** | **46.3** | **9,958.0** | the flowmeter was replaced on July 20, 2010. |
| 01-Feb-10 | 856,887.7 | | 19,110.8 | 18,091.8 | | | | |
| 08-Feb-10 | 864,028.7 | | 19,136.2 | 18,111.4 | | | | |
| 15-Feb-10 | 864,028.7 | | 19,162.8 | 18,129.2 | | | | |
| 22-Feb-10 | 874,842.6 | | 19,184.0 | 18,144.7 | | | | |
| 28-Feb-10 | 877,236.0 | 7,385.6 | 19,199.1 | 18,155.8 | | | | |
| **Feb-10 TOTAL** | | | **92.4** | **67.1** | **159.6** | **46.3** | **17,343.6** | |
| 01-Mar-10 | 877,634.9 | | 19,201.6 | 18,157.7 | | | | |
| 08-Mar-10 | 879,190.1 | | 19,223.4 | 18,176.1 | | | | |
| 15-Mar-10 | 882,836.3 | | 19,303.9 | 18,222.9 | | | | |
| 22-Mar-10 | 891,098.9 | | 19,351.0 | 18,256.4 | | | | |
| 29-Mar-10 | 893,400.0 | | 19,377.2 | 18,281.3 | | | | |
| 31-Mar-10 | 896,600.0 | 15,446.3 | 19,395.8 | 18,292.8 | | | | |
| **Mar-10 TOTAL** | | | **196.7** | **137.0** | **333.7** | **46.3** | **32,789.9** | |
| 05-Apr-10 | 904,600.0 | | 19,442.4 | 18,321.7 | | | | |
| 12-Apr-10 | 915,800.0 | | 19,482.1 | 18,342.2 | | | | |
| 19-Apr-10 | 920,400.0 | | 19,488.5 | 18,348.2 | | | | |
| 26-Apr-10 | 924,700.0 | | 19,511.1 | 18,366.8 | | | | |
| 30-Apr-10 | 927,318.2 | 9,995.9 | 19,526.3 | 18,378.3 | | | | |
| **Apr-10 TOTAL** | | | **130.5** | **85.5** | **216.0** | **46.3** | **42,785.8** | |

Flow meter malfunctioned in 2009. Flow meter readings in column 2 not used to calcuate flows until July 20, 2010. Instead, a pump test was performed to estimate monthly flows.

## Table B1. Summary of Leachate Discharged from Main Pump Station During 2010

| Reading Date | Flow Meter Reading ($m^3$) | Volume Pumped Off-site This Period ($m^3$) | Main Pump No. 1 Hr Meter Reading (hours) | Main Pump No. 2 Hr Meter Reading (hours) | Main Pump Station Total Pump Time (hours) | Main Pumps Average Pumping Rate ( $m^3$/hr) | Main Station Cumulative Volume This Year ($m^3$) | Remarks |
|---|---|---|---|---|---|---|---|---|
| 07-May-10 | 931,900.0 | | 19,553.0 | 18,398.5 | | | | |
| 14-May-10 | 935,000.0 | | 19,583.9 | 18,419.4 | | | | |
| 21-May-10 | 941,600.0 | | 19,634.5 | 18,461.6 | | | | |
| 28-May-10 | 947,300.0 | | 19,660.1 | 18,478.8 | | | | |
| 31-May-10 | 950,400.0 | 11,962.0 | 19,673.6 | 18,489.6 | | | | |
| **May-10 TOTAL** | | | **147.2** | **111.2** | **258.4** | **46.3** | **54,747.8** | |
| 03-Jun-10 | 953,500.0 | | 19,687.0 | 18,500.3 | | | | |
| 10-Jun-10 | 956,900.0 | | 19,721.8 | 18,528.4 | | | | |
| 18-Jun-10 | 963,700.0 | | 19,782.7 | 18,546.4 | | | | |
| 25-Jun-10 | 964,900.0 | | 19,797.7 | 18,571.5 | | | | |
| 30-Jun-10 | 968,900.0 | 12,352.9 | 19,829.8 | 18,600.2 | | | | |
| **Jun-10 TOTAL** | | | **156.2** | **110.7** | **266.9** | **46.3** | **67,100.8** | |
| 02-Jul-10 | 970,400.0 | | 19,841.8 | 18,611.0 | | | | |
| 09-Jul-10 | 976,600.0 | | 19,870.2 | 18,628.6 | | | | New flowmeter installed on July 20, 2010. A volume of 7,513.9 $m^3$ was the total amount of leachate estimated to have been pumped off site from July 1 to July 20, 2010. |
| 16-Jul-10 | 985,300.0 | | 19,906.1 | 18,656.3 | | | | |
| 20-Jul-10 | 990,271.4 | 7,513.9 | 19,923.9 | 18,668.5 | | | | |
| 20-Jul-10 | 0.0 | | 19,923.9 | 18,668.5 | | | | |
| 23-Jul-10 | 513.9 | | 19,937.2 | 18,677.6 | | | | |
| 30-Jul-10 | 2,485.7 | | 19,965.9 | 18,696.1 | | | | |
| 31-Jul-10 | 2,818.3 | 10,332.2 | 19,969.9 | 18,699.6 | | | | |
| **Jul-10 TOTAL** | | | **140.1** | **99.3** | **239.4** | **43.2** | **77,433.0** | |
| 06-Aug-10 | 4,814.1 | | 19,993.7 | 18,720.3 | | | | |
| 13-Aug-10 | 6,611.4 | | 20,013.8 | 18,738.5 | | | | |
| 20-Aug-10 | 8,214.5 | | 20,033.0 | 18,753.7 | | | | |
| 27-Aug-10 | 9,499.3 | | 20,048.0 | 18,766.8 | | | | |
| 31-Aug-10 | 10,387.5 | 7,569.2 | 20,058.7 | 18,775.3 | | | | |
| **Aug-10 TOTAL** | | | **88.9** | **75.8** | **164.6** | **46.0** | **85,002.2** | |

Flow meter malfunctioned in 2009. Flow meter readings in column 2 not used to calcuate flows until July 20, 2010. Instead, a pump test was performed to estimate monthly flows.

## Table B1. Summary of Leachate Discharged from Main Pump Station During 2010

| Reading Date | Flow Meter Reading ($m^3$) | Volume Pumped Off-site This Period ($m^3$) | Main Pump No. 1 Hr Meter Reading (hours) | Main Pump No. 2 Hr Meter Reading (hours) | Main Pump Station Total Pump Time (hours) | Main Pumps Average Pumping Rate ( $m^3$/hr) | Main Station Cumulative Volume This Year ($m^3$) | Remarks |
|---|---|---|---|---|---|---|---|---|
| 03-Sep-10 | 11,053.7 | | 20,066.8 | 18,781.7 | | | | |
| 10-Sep-10 | 12,690.6 | | 20,086.8 | 18,796.7 | | | | |
| 17-Sep-10 | 14,217.2 | | 20,104.3 | 18,810.7 | | | | |
| 24-Sep-10 | 15,894.9 | | 20,125.1 | 18,825.7 | | | | |
| 30-Sep-10 | 16,546.1 | 6,158.5 | 20,133.1 | 18,831.6 | | | | |
| **Sep-10 TOTAL** | | | **74.3** | **56.3** | **130.6** | **47.1** | **91,160.7** | |
| 01-Oct-10 | 17,631.3 | | 20,146.3 | 18,841.5 | | | | |
| 08-Oct-10 | 19,242.2 | | 20,162.8 | 18,853.8 | | | | |
| 15-Oct-10 | 21,585.8 | | 20,192.3 | 18,876.8 | | | | |
| 22-Oct-10 | 23,242.8 | | 20,213.6 | 18,893.4 | | | | |
| 29-Oct-10 | 25,437.9 | | 20,240.6 | 18,912.5 | | | | |
| 31-Oct-10 | 25,973.0 | 9,427.0 | 20,246.8 | 18,917.7 | | | | |
| **Oct-10 TOTAL** | | | **113.8** | **86.0** | **199.8** | **47.2** | **100,587.7** | |
| 05-Nov-10 | 27,310.8 | | 20,262.3 | 18,930.6 | | | | |
| 12-Nov-10 | 29,153.9 | | 20,282.6 | 18,947.7 | | | | |
| 19-Nov-10 | 30,763.2 | | 20,303.6 | 18,965.1 | | | | |
| 26-Nov-10 | 33,089.9 | | 20,329.0 | 18,986.3 | | | | |
| 30-Nov-10 | 35,881.3 | 9,908.3 | 20,352.0 | 19,001.7 | | | | |
| **Nov-10 TOTAL** | | | **105.2** | **84.0** | **189.2** | **52.4** | **110,495.9** | |
| 03-Dec-10 | 37,974.8 | | 20,369.3 | 19,013.2 | | | | |
| 10-Dec-10 | 40,187.0 | | 20,395.4 | 19,034.9 | | | | |
| 17-Dec-10 | 42,837.8 | | 20,427.6 | 19,060.4 | | | | |
| 24-Dec-10 | 43,838.0 | | 20,440.1 | 19,069.3 | | | | |
| 29-Dec-10 | 45,077.7 | 9,196.4 | 20,453.5 | 19,082.9 | | | | |
| **Dec-10 TOTAL** | | | **101.5** | **81.2** | **182.7** | **50.3** | **119,692.4** | |
| **YEAR 2010 TOTAL** | | **119,692.4** | **1473.5** | **1082.7** | **2556.2** | | **119,692.4** | |

Flow meter malfunctioned in 2009. Flow meter readings in column 2 not used to calcuate flows until July 20, 2010. Instead, a pump test was performed to estimate monthly flows.

**Table B2. South and West Pump Station Pump Operating Hours and Estimated Monthly Leachate Flows for 2010**

| Date | South Sta Pump #1 (hours) | South Sta Pump #2 (hours) | South Sta Total (hours) | South Sta (1) (Monthly vol) (cu m) | | West Sta Pump #1 (hours) | West Sta. Pump #2 (hours) | West Sta Total (hours) | West Sta (1) (Monthly vol) (cu m) | TOTAL Hours Pumped (hours) | Average pump rate (all 4 pumps) ($m^3$/hr) | Total flow (1) this period (cu m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan-10 | 56.1 | 88.0 | 144.1 | 4,231.6 | | 75.1 | 119.9 | 195.0 | 5,726.3 | 339.1 | 29.4 | 9,958.0 |
| Feb-10 | 63.1 | 88.5 | 151.6 | 3,380.6 | | 73.5 | 106.1 | 179.6 | 4,005.0 | 331.2 | 22.3 | 7,385.6 |
| Mar-10 | 136.5 | 160.3 | 296.8 | 7,429.1 | | 91.7 | 228.6 | 320.3 | 8,017.3 | 617.1 | 25.0 | 15,446.3 |
| Apr-10 | 85.1 | 64.9 | 150.0 | 3,612.1 | | 109.2 | 155.9 | 265.1 | 6,383.8 | 415.1 | 24.1 | 9,995.9 |
| May-10 | 149.1 | 135.0 | 284.1 | 6,223.0 | | 101.5 | 160.5 | 262.0 | 5,739.0 | 546.1 | 21.9 | 11,962.0 |
| Jun-10 | 120.5 | 125.7 | 246.2 | 5,462.1 | | 107.6 | 203.0 | 310.6 | 6,890.8 | 556.8 | 22.2 | 12,352.9 |
| Jul-10 | 77.9 | 81.6 | 159.5 | 4,290.5 | | 82.2 | 142.4 | 224.6 | 6,041.7 | 384.1 | 26.9 | 10,332.2 |
| Aug-10 | 89.4 | 99.1 | 188.5 | 3,329.0 | | 89.6 | 150.5 | 240.1 | 4,240.2 | 428.6 | 17.7 | 7,569.2 |
| Sep-10 | 61.3 | 65.0 | 126.3 | 2,665.6 | | 61.9 | 103.6 | 165.5 | 3,492.9 | 291.8 | 21.1 | 6,158.5 |
| Oct-10 | 79.9 | 74.6 | 154.5 | 4,114.3 | | 76.7 | 122.8 | 199.5 | 5,312.7 | 354.0 | 26.6 | 9,427.0 |
| Nov-10 | 101.7 | 122.9 | 224.6 | 4,373.0 | | 102.0 | 182.3 | 284.3 | 5,535.3 | 508.9 | 19.5 | 9,908.3 |
| Dec-10 | 58.0 | 106.4 | 164.4 | 4,287.8 | | 46.7 | 141.5 | 188.2 | 4,908.6 | 352.6 | 26.1 | 9,196.4 |
| **Total 10** | **1,078.6** | **1,212.0** | **2,290.6** | **53,398.7** | | **1,017.7** | **1,817.1** | **2,834.8** | **66,293.6** | **5,125.4** | **23.4** | **119,692.4** |

*Note 1:* *Total volume pumped from each station based on monthly hour meter readings and flow from the Main Pump Station*
*For example, in January the total number of hours pumped from both the west and south stations were 463.0 hours.*
*The total volume pumped from the Main PS was 7050.9 $m^3$.*
*Therefore the total flow from the south station was estimated as 199.4/463.0 x 7050.9= 3,036.6 $m^3$*

## Table B3. Monthly Leachate Quantities and Average Daily Flow Rates from All Pump Stations During 2010

| Date | Main Sta Volume This period ($m^3$) | Main Sta Avg Daily Flow Rate for the month ($m^3$/day) | South Sta Total ($m^3$) | South Sta Avg Daily Flow Rate for the month ($m^3$/day) | West Sta Total ($m^3$) | West Sta Avg Daily Flow Rate for the month ($m^3$/day) | South+West Total ($m^3$) | Remarks |
|---|---|---|---|---|---|---|---|---|
| Jan-10 | 9,958.0 | 321.2 | 4,231.6 | 136.5 | 5,726.3 | 184.7 | 9,958.0 | |
| Feb-10 | 7,385.6 | 263.8 | 3,380.6 | 120.7 | 4,005.0 | 143.0 | 7,385.6 | |
| Mar-10 | 15,446.3 | 498.3 | 7,429.1 | 239.6 | 8,017.3 | 258.6 | 15,446.3 | |
| Apr-10 | 9,995.9 | 333.2 | 3,612.1 | 120.4 | 6,383.8 | 212.8 | 9,995.9 | |
| May-10 | 11,962.0 | 385.9 | 6,223.0 | 200.7 | 5,739.0 | 185.1 | 11,962.0 | |
| Jun-10 | 12,352.9 | 411.8 | 5,462.1 | 182.1 | 6,890.8 | 229.7 | 12,352.9 | |
| Jul-10 | 10,332.2 | 333.3 | 4,290.5 | 138.4 | 6,041.7 | 194.9 | 10,332.2 | |
| Aug-10 | 7,569.2 | 244.2 | 3,329.0 | 107.4 | 4,240.2 | 136.8 | 7,569.2 | |
| Sep-10 | 6,158.5 | 205.3 | 2,665.6 | 88.9 | 3,492.9 | 116.4 | 6,158.5 | |
| Oct-10 | 9,427.0 | 304.1 | 4,114.3 | 132.7 | 5,312.7 | 171.4 | 9,427.0 | |
| Nov-10 | 9,908.3 | 330.3 | 4,373.0 | 145.8 | 5,535.3 | 178.6 | 9,908.3 | |
| Dec-10 | 9,196.4 | 296.7 | 4,287.8 | 138.3 | 4,908.6 | 158.3 | 9,196.4 | |
| **Total 2010** | **119,692.4** | **N/A** | **53,398.7** | **N/A** | **66,293.6** | **N/A** | **119,692.4** | |
| **Monthly Avg** | **9,974.4** | **327.3** | **4,449.9** | **146.0** | **5,524.5** | **180.9** | **9,974.4** | |

**TABLE : B4 MANHOLE LEACHATE ELEVATIONS, SOUTH COLLECTION SYSTEM - 2010**

| DATE | MANHOLE LOCATIONS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Elevation | AS (mASL) | BS (mASL) | 1S (mASL) | 2S (mASL) | 3S (mASL) | 4S (mASL) | 5S (mASL) | 5AS (mASL) | South Pump Station | 6S (mASL) | 7S (mASL) | 8S (mASL) |
| 05-Jan-10 | 342.28 | 342.29 | 342.27 | 342.09 | 341.31 | 341.19 | 341.20 | 339.86 | 339.88 | 339.88 | 339.88 | 339.90 |
| 25-Jan-10 | 342.27 | 342.25 | 342.25 | 342.09 | 341.30 | 341.21 | 341.19 | 339.73 | 339.76 | 339.76 | 339.75 | 339.74 |
| 08-Feb-10 | 342.24 | 342.31 | 342.28 | 342.12 | 341.30 | 341.19 | 341.21 | 339.75 | 339.79 | 339.81 | 339.81 | 339.80 |
| 23-Feb-10 | 342.20 | 342.28 | 342.26 | 342.10 | 341.32 | 341.16 | 341.20 | 339.84 | 339.78 | 339.86 | 339.87 | 339.87 |
| 02-Mar-10 | 342.21 | 342.28 | 342.28 | 342.11 | 341.30 | 341.16 | 341.21 | 339.72 | 339.57 | 339.73 | 339.71 | 339.71 |
| 26-Mar-10 | 342.26 | 342.31 | 342.32 | 342.13 | 341.34 | 341.12 | 341.26 | 339.78 | 339.69 | 339.66 | 339.72 | 339.76 |
| 13-Apr-10 | 343.43 | 341.28 | 342.28 | 342.18 | 341.38 | 341.23 | 341.24 | 340.83 | 340.80 | 340.85 | 340.86 | 340.79 |
| 28-Apr-10 | 343.32 | 342.37 | 342.32 | 342.15 | 341.36 | 341.24 | 341.25 | 339.95 | 339.79 | 339.84 | 339.85 | 339.85 |
| 12-May-10 | 342.28 | 342.26 | 342.28 | 342.09 | 341.33 | 341.20 | 341.25 | 339.79 | 339.74 | 339.84 | 339.85 | 339.80 |
| 26-May-10 | 342.26 | 342.24 | 342.22 | 342.12 | 341.31 | 341.19 | 341.20 | 339.78 | 339.76 | 339.12 | 339.87 | 339.83 |
| 09-Jun-10 | 342.35 | 342.36 | 342.27 | 342.13 | 341.35 | 341.26 | 341.21 | 339.81 | 339.79 | 339.82 | 339.85 | 339.85 |
| 25-Jun-10 | 342.32 | 342.33 | 342.31 | 342.10 | 341.35 | 341.20 | 341.22 | 339.83 | 339.80 | 339.83 | 339.84 | 339.83 |
| 08-Jul-10 | 342.30 | 342.31 | 342.27 | 341.26 | 341.31 | 341.19 | 341.24 | 339.90 | 339.76 | 339.86 | 339.85 | 339.83 |
| 28-Jul-10 | 342.26 | 342.28 | 342.25 | 342.07 | 341.32 | 341.15 | 341.19 | 339.58 | 339.78 | 339.61 | 339.77 | 339.68 |
| 05-Aug-10 | 342.24 | 342.35 | 342.32 | 341.94 | 341.38 | 341.22 | 341.21 | 339.77 | 339.63 | 339.83 | 339.81 | 339.70 |
| 23-Aug-10 | 342.29 | 342.33 | 342.30 | 342.00 | 341.34 | 341.18 | 341.19 | 339.74 | 339.71 | 339.89 | 339.71 | 339.51 |
| 10-Sep-10 | 342.33 | 342.32 | 342.16 | 341.38 | 341.30 | 341.20 | 341.26 | 339.84 | 339.74 | 339.83 | 339.90 | 339.75 |
| 27-Sep-10 | 342.28 | 342.27 | 342.14 | 341.10 | 341.26 | 341.13 | 341.22 | 339.93 | 339.72 | 339.95 | 340.06 | 339.31 |
| 15-Oct-10 | 342.26 | 342.28 | 342.28 | 342.07 | 341.28 | 341.15 | 341.19 | 339.62 | 339.62 | 339.57 | 341.70 | 339.74 |
| 22-Nov-10 | 342.30 | 342.25 | 342.26 | 342.10 | 341.36 | 341.13 | 341.19 | 339.58 | 339.40 | 339.65 | 339.72 | 339.72 |
| 13-Dec-10 | 342.26 | 342.31 | 342.30 | 342.07 | 341.33 | 341.14 | 341.16 | 339.61 | 339.61 | 339.61 | 339.72 | 339.71 |
| **Elevations of:** | | | | | | | | | | | | |
| **Pipe Invert** | **342.30** | **342.30** | **342.30** | **342.30** | **341.40** | **341.20** | **341.00** | **341.00 E 339.50 W** | **339.50** | **339.50** | **339.60** | **339.70** |
| **Top of Sheet Pile Wall** | ---------- | **344.00** | **343.90** | **344.00** | **343.40** | **343.20** | **343.50** | **343.50** | **343.30** | **343.20** | **344.00** | **344.70** |

**TABLE : B5 MANHOLE LEACHATE ELEVATIONS, WEST COLLECTION SYSTEM - 2010**

| DATE | MANHOLE LOCATIONS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Elevation** | **1W (mASL)** | **2W (mASL)** | **3W (mASL)** | **4W (mASL)** | **5W (mASL)** | **West Pump Station** | **6W (mASL)** | **7W (mASL)** | **8W (mASL)** | **9W (mASL)** |
| 05-Jan-10 | 341.30 | 341.30 | 341.31 | 342.07 | 340.83 | 339.23 | 340.72 | 340.85 | 340.92 | 341.86 |
| 25-Jan-10 | 341.35 | 341.38 | 341.37 | 341.00 | 340.93 | 339.26 | 340.81 | 340.83 | 340.93 | 341.87 |
| 08-Feb-10 | 341.29 | 341.27 | 341.28 | 341.03 | 340.81 | 339.36 | 340.73 | 340.85 | 340.95 | 341.86 |
| 23-Feb-10 | 341.34 | 341.37 | 341.33 | 341.05 | 340.81 | 339.25 | 340.71 | 340.78 | 340.92 | 341.86 |
| 02-Mar-10 | 341.34 | 341.38 | 341.34 | 340.95 | 340.86 | 339.23 | 340.68 | 340.84 | 340.94 | 341.85 |
| 26-Mar-10 | 341.32 | 341.30 | 341.29 | 341.05 | 340.81 | 339.78 | 340.81 | 340.83 | 340.92 | 341.87 |
| 13-Apr-10 | 341.33 | 341.41 | 341.33 | 341.10 | 340.88 | 339.41 | 340.76 | 340.90 | 341.00 | 341.89 |
| 28-Apr-10 | 341.41 | 341.44 | 341.41 | 341.10 | 340.86 | 339.63 | 340.76 | 340.88 | 340.99 | 341.93 |
| 12-May-10 | 341.33 | 341.32 | 341.29 | 341.10 | 340.84 | 339.36 | 340.72 | 340.89 | 340.92 | 341.87 |
| 26-May-10 | 341.29 | 341.29 | 341.30 | 341.07 | 340.81 | 339.35 | 340.76 | 340.84 | 340.93 | 341.89 |
| 09-Jun-10 | 341.34 | 341.30 | 341.27 | 341.11 | 340.85 | 339.38 | 340.71 | 340.85 | 340.95 | 341.88 |
| 25-Jun-10 | 341.31 | 341.32 | 341.29 | 341.10 | 340.87 | 339.39 | 340.75 | 340.88 | 340.98 | 341.87 |
| 08-Jul-10 | 341.27 | 341.34 | 341.29 | 341.03 | 340.87 | 339.35 | 340.72 | 340.84 | 340.93 | 341.91 |
| 28-Jul-10 | 341.29 | 341.25 | 341.28 | 341.02 | 340.87 | 339.41 | 340.70 | 340.83 | 340.90 | 341.87 |
| 05-Aug-10 | 341.27 | 341.29 | 341.32 | 341.10 | 340.90 | 339.34 | 340.76 | 340.86 | 340.95 | 341.92 |
| 23-Aug-10 | 341.32 | 341.23 | 341.27 | 341.07 | 340.86 | 339.28 | 340.71 | 340.85 | 340.91 | 341.87 |
| 10-Sep-10 | 341.37 | 341.36 | 341.33 | 341.07 | 340.83 | 339.35 | 340.69 | 340.85 | 340.89 | 341.90 |
| 27-Sep-10 | 341.30 | 341.33 | 341.29 | 341.01 | 340.80 | 339.30 | 340.71 | 340.83 | 340.93 | 341.85 |
| 15-Oct-10 | 341.29 | 341.21 | 341.32 | 341.08 | 340.88 | 339.35 | 340.72 | 340.83 | 340.89 | 341.84 |
| 22-Nov-10 | 341.26 | 341.20 | 341.31 | 341.05 | 340.87 | 339.21 | 340.75 | 340.86 | 340.90 | 341.84 |
| 13-Dec-10 | 341.28 | 341.23 | 341.34 | 341.07 | 340.91 | 339.30 | 340.74 | 340.86 | 340.91 | 341.86 |
| **Elevations of:** | | | | | | | | | | |
| **Pipe Invert** | **341.20** | **341.10** | **340.95** | **340.85** | **340.75** | **340.70** | **340.75** | **340.85** | **340.95** | **342.00** |
| **Top of Sheet Pile Wall** | ---------- | ---------- | ---------- | ---------- | **343.50** | **343.60** | **343.50** | **344.50** | **345.20** | **345.90** |



AECOM

# Appendix C

## Groundwater, Surface Water and Leachate Quality and Chemistry Trends

C1. Groundwater Routine Landfill Leachate Analysis

C2. Groundwater Routine Monitoring Analyses

C3. Surface Water Routine Monitoring Analyses

C4. Surface Water Field Observations

C5. Leachate MISA Monitoring Analyses

C6. Organics Analysis – Landfill Leachate

C7. Comparison of Downgradient Monitors in Buffer Land Boundary to Guideline B7 Criteria for 2010

C8. Comparison of Downgradient Bedrock Boundary Monitors in Buffer Land to Guideline B7 Criteria for 2010 – Groundwater Chemistry Trends (Figures C1 – C18)

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

**Monitor**

**1-IR**

**Outwash**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| 11-Apr-05 | INV | | | | | | | | | | | | | | | | | | |
| 21-Jun-05 | INV | | | | | | | | | | | | | | | | | | |
| 31-Aug-05 | INV | | | | | | | | | | | | | | | | | | |
| 15-Nov-05 | INV | | | | | | | | | | | | | | | | | | |
| 28-Apr-06 | INV | | | | | | | | | | | | | | | | | | |
| 07-Jun-06 | INV | | | | | | | | | | | | | | | | | | |
| 30-Aug-06 | INV | | | | | | | | | | | | | | | | | | |
| 24-Nov-06 | INV | | | | | | | | | | | | | | | | | | |
| 10-Apr-07 | INV | | | | | | | | | | | | | | | | | | |
| 18-Jun-07 | INV | | | | | | | | | | | | | | | | | | |
| 13-Aug-07 | INV | | | | | | | | | | | | | | | | | | |
| 13-Nov-07 | INV | | | | | | | | | | | | | | | | | | |
| 06-May-08 | INV | | | | | | | | | | | | | | | | | | |
| 20-Jun-08 | INV | | | | | | | | | | | | | | | | | | |
| 15-Sep-08 | INV | | | | | | | | | | | | | | | | | | |
| 26-Nov-08 | INV | | | | | | | | | | | | | | | | | | |
| 01-May-09 | MAX | | | | | | | | | | | | | | | | | | |
| 26-Jun-09 | INV | | | | | | | | | | | | | | | | | | |
| 31-Aug-09 | INSV | | | | | | | | | | | | | | | | | | |
| 19-Nov-09 | INSV | | | | | | | | | | | | | | | | | | |
| 20-May-10 | INSV | | | | | | | | | | | | | | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

**Monitor**

**51-IR**
**Waste**
**7.3 - 22.6 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| 11-Apr-05 | Philip | 7.48 | 7609 | 3560 | 2007 | 843 | 7.93 | < 5 | 157 | 722 | 391 | 195 | 2.63 | 0.095 | 172 | | 9.1 | < 2 | < 0.2 |
| 21-Jun-05 | MAX | 8.22 | 8170 | 3740 | 2290 | 101 | 9.8 | 21 | 173 | 907 | 434 | 266 | 9.11 | 0.1 | 13.9 | | 6.3 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 8.63 | 8640 | 3920 | 2170 | 1160 | 12 | 276 | 170 | 1100 | 460 | | 8.5 | 0.1 | < 0.05 | | 53 | 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.05 | 6880 | 4050 | 2200 | 890 | 7.4 | 19 | 180 | 890 | 450 | 270 | 6.5 | 0.11 | 212 | | 5 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 7.9 | 8660 | 3900 | 2900 | 1280 | 10 | 37 | 190 | 1300 | 590 | 320 | 19 | 0.14 | 169 | | 280 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 7.7 | 8980 | 3890 | 2600 | 1060 | 8 | 33 | 180 | 1000 | 520 | 260 | 11 | 0.13 | 160 | | 269 | < 0.01 | < 0.1 |
| 30-Aug-06 | INV | | | | | | | | | | | | | | | | | | |
| 24-Nov-06 | MAX | 8 | 9350 | 3970 | 2200 | 1140 | 9.7 | 16 | 150 | 990 | 450 | 340 | 5.7 | 0.15 | 269 | | 23 | 0.06 | < 0.1 |
| 16-Apr-07 | Maxx | 8 | 8160 | 3780 | 2700 | 740 | 8.6 | 80 | 190 | 970 | 540 | 270 | 19 | 0.15 | 199 | | 18 | < 0.1 | < 1 |
| 21-Jun-07 | Maxx | 7.9 | 8070 | 3750 | 2800 | 942 | 9.3 | 87 | 210 | 950 | 550 | 280 | 11 | 0.16 | 165 | | 103 | < 0.01 | < 0.1 |
| 16-Aug-07 | Maxx | 7.8 | 8330 | 3850 | 2600 | 1000 | 9.6 | 40 | 170 | 960 | 520 | 310 | 12 | 0.14 | 242 | | 12 | < 0.1 | < 1 |
| 14-Nov-07 | Maxx | 7.8 | 8750 | 3780 | 2500 | 900 | 7.8 | 11 | 180 | 850 | 500 | 250 | 1.8 | 0.17 | 202 | | 14 | < 0.01 | < 0.1 |
| 06-May-08 | Maxx | 8 | 8230 | 3800 | 2600 | 1130 | 7.2 | 4 | 190 | 880 | 530 | 250 | 3.7 | 0.17 | 180 | | 2 | < 0.01 | < 0.1 |
| 19-Jun-08 | Maxx | 8 | 9710 | 4250 | 1800 | 1050 | 9.1 | 29 | 120 | 800 | 370 | 290 | 13 | 0.12 | 340 | | 1 | 0.01 | < 0.1 |
| 15-Sep-08 | Maxx | 7.9 | 8970 | 4030 | 2400 | 973 | 8.1 | 18 | 160 | 820 | 480 | 280 | 17 | 0.15 | 250 | | 1 | < 0.01 | < 0.1 |
| 27-Nov-08 | Maxx | 8 | 15400 | 5940 | 1600 | < 1 | 18 | 58 | 81 | 1500 | 350 | 690 | 11 | 0.054 | 820 | | 1 | < 0.1 | < 1 |
| 04-May-09 | Maxx | 7.8 | 11500 | 4330 | 2300 | 1450 | 11 | 54 | 140 | 1100 | 460 | 410 | 13 | 0.11 | 250 | | 12 | 0.02 | < 0.1 |
| 26-Jun-09 | Maxx | 7.9 | 12800 | 5180 | 2300 | 1660 | 17 | 62 | 130 | 1500 | 470 | 620 | 6.3 | 0.063 | 570 | | 12 | < 0.1 | < 1 |
| 31-Aug-09 | Maxx | 7.7 | 17600 | 6860 | 1500 | 2080 | 24 | 30 | 64 | 1700 | 330 | 850 | 3.2 | 0.028 | 980 | | 10 | 0.02 | < 0.1 |
| 19-Nov-09 | Maxx | 7.6 | 17600 | 6800 | 1600 | 2130 | 23 | 56 | 63 | 1700 | 340 | 860 | 3.4 | 0.027 | 1200 | | 12 | < 0.1 | < 1 |
| 20-May-10 | Maxx | 7.8 | 17000 | 6510 | 1700 | 2170 | 20 | 70 | 72 | 1600 | 360 | 790 | 11 | 0.026 | 1000 | | 22 | < 0.25 | < 2.5 |
| 02-Nov-10 | Maxx | 7.8 | 18000 | 6660 | 1500 | 2120 | 22 | 76 | 59 | 1800 | 330 | 830 | 9.8 | 0.034 | 880 | | 10 | < 0.1 | < 1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

**Monitor**

**51-II**
**Outwash**
**23.6 - 26.7 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| 11-Apr-05 | Philip | 7.12 | 4445 | 1560 | 1407 | 791 | 3.92 | 3 | 167 | 405 | 240 | 35.7 | 11.7 | 0.044 | 29.1 | | 5.2 | < 2 | < 0.2 |
| 21-Jun-05 | MAX | 7.64 | 4360 | 1650 | 1460 | 706 | 3.76 | 1 | 174 | 451 | 263 | 39.1 | 12.2 | 0.039 | 31 | | 0.5 | < 5 | < 0.1 |
| 31-Aug-05 | MAX | 8.58 | 4290 | 1480 | 1550 | 621 | 3.8 | < 1 | 180 | 480 | 280 | | 12 | 0.042 | 28 | | 1 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 7.82 | 3920 | 3080 | 1300 | 705 | 4 | < 1 | 180 | 500 | 290 | 42 | 14 | 0.042 | 30.4 | | 12 | < 0.01 | 1.4 |
| 28-Apr-06 | Maxx | 7.8 | 4920 | 1650 | 1700 | 832 | 4.8 | 4 | 190 | 550 | 300 | 45 | 13 | 0.041 | 29.5 | | 1 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 7.9 | 5070 | 1870 | 1700 | 773 | 4.6 | < 2 | 180 | 530 | 310 | 44 | 12 | 0.036 | 30.1 | | 2 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 7.7 | 5240 | 2010 | 1700 | 809 | 4.7 | < 2 | 170 | 560 | 320 | 46 | 8.9 | 0.031 | 36.6 | | 1 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 7.9 | 5580 | 1950 | 1900 | 882 | 5.2 | < 2 | 180 | 590 | 340 | 48 | 11 | 0.026 | 47.4 | | 1 | < 0.01 | < 0.1 |
| 16-Apr-07 | Maxx | 8 | 5990 | 2350 | 2100 | 725 | 6.2 | 76 | 170 | 700 | 410 | 66 | 8.2 | 0.017 | 50.8 | | 2 | < 0.01 | < 0.1 |
| 21-Jun-07 | Maxx | 7.8 | 6010 | 2510 | 2300 | 896 | 6.1 | 59 | 180 | 770 | 450 | 80 | 8.2 | 0.013 | 77 | | 3 | < 0.01 | < 0.1 |
| 16-Aug-07 | Maxx | 8.1 | 5920 | 2570 | 2300 | 899 | 6.9 | 20 | 150 | 740 | 450 | 86 | 8.6 | 0.014 | 82 | | 10 | < 0.01 | < 0.1 |
| 14-Nov-07 | Maxx | 7.9 | 6360 | 2540 | 2200 | 881 | 6.5 | 3 | 150 | 730 | 450 | 95 | 7.5 | 0.014 | 71.1 | | 1 | < 0.01 | < 0.1 |
| 06-May-08 | Maxx | 7.9 | 6370 | 2490 | 2100 | 1110 | 6 | < 1 | 140 | 710 | 420 | 98 | 8.3 | < 0.01 | 78 | | 1 | < 0.01 | < 0.1 |
| 19-Jun-08 | Maxx | 8.1 | 6370 | 2510 | 1900 | 856 | 6.9 | < 1000 | 140 | 610 | 380 | 98 | 6.1 | 0.007 | 74 | | 1 | < 0.01 | < 0.1 |
| 15-Sep-08 | Maxx | 8 | 6490 | 2600 | 2200 | 796 | 6.9 | < 1 | 140 | 720 | 440 | 100 | 9.3 | < 0.002 | 69 | | 1 | < 0.01 | < 0.1 |
| 27-Nov-08 | Maxx | 8 | 6430 | 2650 | 2000 | 1130 | 5.7 | 1 | 130 | 640 | 400 | 93 | 8.1 | < 0.02 | 85 | | 1 | < 0.01 | < 0.1 |
| 04-May-09 | Maxx | 7.7 | 6510 | 2490 | 2100 | 932 | 5.7 | 18 | 140 | 700 | 430 | 100 | 9.3 | < 0.02 | 76 | | 1 | < 0.01 | < 0.1 |
| 26-Jun-09 | Maxx | 7.7 | 6510 | 2520 | 2100 | 935 | 5.9 | < 1 | 140 | 660 | 430 | 110 | 8.3 | 0.006 | 72 | | 3 | < 0.01 | < 0.1 |
| 31-Aug-09 | Maxx | 7.4 | 6470 | 2510 | 2200 | 878 | 6.7 | 6 | 150 | 660 | 430 | 110 | 0.81 | 0.004 | 70 | | 1 | < 0.01 | < 0.1 |
| 19-Nov-09 | Maxx | 7.6 | 6530 | 2600 | 2000 | 890 | 6.1 | 6 | 150 | 710 | 400 | 110 | 8.3 | 0.005 | 68 | | 1 | < 0.01 | < 0.1 |
| 20-May-10 | Maxx | 7.6 | 6640 | 2350 | 2000 | 919 | 5.8 | 2 | 130 | 640 | 390 | 96 | 8.8 | < 0.02 | 83 | | 3 | < 0.01 | < 0.1 |
| 02-Nov-10 | Maxx | 7.96 | 6450 | 2560 | 2000 | 873 | 6 | 36 | 130 | 650 | 400 | 100 | < 1 | < 0.02 | 69 | | 10 | < 0.01 | 4.7 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

**Monitor**

**55-IR**
**Outwash**
**11.2 - 15.8 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| 11-Apr-05 | INV | | | | | | | | | | | | | | | | | | |
| 21-Jun-05 | INV | | | | | | | | | | | | | | | | | | |
| 31-Aug-05 | INV | | | | | | | | | | | | | | | | | | |
| 15-Nov-05 | INV | | | | | | | | | | | | | | | | | | |
| 28-Apr-06 | INV | | | | | | | | | | | | | | | | | | |
| 07-Jun-06 | INV | | | | | | | | | | | | | | | | | | |
| 30-Aug-06 | MAX | 7.7 | 11500 | 4430 | 1800 | 1520 | 24 | 200 | 180 | 1100 | 330 | 600 | 28 | 0.19 | 542 | | 3 | < 0.1 | < 1 |
| 24-Nov-06 | INV | | | | | | | | | | | | | | | | | | |
| 24-Nov-06 | INV | | | | | | | | | | | | | | | | | < | < |
| 24-Nov-06 | MAX | 7.9 | 11300 | 4050 | 1800 | 1520 | 23 | 210 | 180 | 1100 | 330 | 580 | 30 | 0.22 | 539 | | 2 | 0.1 | 1 |
| 24-Nov-06 | MAX | 7.9 | 11300 | 4050 | 1800 | 1520 | 23 | 210 | 180 | 1100 | 330 | 580 | 30 | 0.22 | 539 | | 2 | < 0.1 | < 1 |
| 16-Apr-07 | Maxx | 8 | 11300 | 4310 | 2000 | 1680 | 27 | 280 | 180 | 1300 | 370 | 620 | 30 | 0.21 | 588 | | 1 | < 0.2 | < 2 |
| 21-Jun-07 | MAX | | | | | | | | | | | | | | | | | | |
| 16-Aug-07 | INV | | | | | | | | | | | | | | | | | | |
| 14-Nov-07 | INV | | | | | | | | | | | | | | | | | | |
| 06-May-08 | INV | | | | | | | | | | | | | | | | | | |
| 20-Jun-08 | INV | | | | | | | | | | | | | | | | | | |
| 15-Sep-08 | INV | | | | | | | | | | | | | | | | | | |
| 27-Nov-08 | INV | | | | | | | | | | | | | | | | | | |
| 01-May-09 | Maxx | 7.7 | 3340 | 1260 | 1200 | 393 | 4.2 | 5 | 270 | 250 | 130 | 56 | 0.32 | 0.43 | 62 | | 13 | < 0.01 | < 0.1 |
| 26-Jun-09 | INV | | | | | | | | | | | | | | | | | | |
| 31-Aug-09 | INSV | | | | | | | | | | | | | | | | | | |
| 19-Nov-09 | Maxx | 7.5 | 3260 | 1240 | 1200 | 389 | 3.9 | 6 | 260 | 250 | 130 | 51 | 2.9 | 0.12 | 48 | | 3 | < 0.01 | < 0.1 |
| 20-May-10 | INSV | | | | | | | | | | | | | | | | | | |
| 02-Nov-10 | INSV | | | | | | | | | | | | | | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

**Monitor**

**56-IR**
**Outwash**
**12.0 - 18.1 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| 11-Apr-05 | INV | | | | | | | | | | | | | | | | | | |
| 21-Jun-05 | MAX | 7.97 | 4230 | 939 | 1170 | 936 | 5.7 | 2 | 252 | 428 | 126 | 21 | 35.4 | 0.44 | 15.4 | | 2.9 | < 0.1 | < 0.1 |
| 31-Aug-05 | INV | | | | | | | | | | | | | | | | | | |
| 15-Nov-05 | MAX | 7.75 | 4030 | 1050 | 1200 | 1060 | 8.3 | 2 | 250 | 580 | 190 | 28 | 33 | 0.31 | 26.9 | | 6 | 0.02 | < 0.1 |
| 28-Apr-06 | INV | | | | | | | | | | | | | | | | | | |
| 07-Jun-06 | Maxx | 8 | 1660 | 649 | 630 | 187 | 1.9 | < 1 | 150 | 100 | 62 | 12 | 5.3 | 0.29 | 6.97 | | 12 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 7.8 | 1710 | 533 | 630 | 201 | 0.76 | < 1 | 170 | 75 | 47 | 7.2 | < 0.05 | 0.062 | 2.99 | | 60 | 0.14 | 17 |
| 24-Nov-06 | MAX | 8.1 | 1330 | 512 | 570 | 145 | 0.66 | < 1 | 160 | 71 | 44 | 5.1 | < 0.05 | 0.14 | 2.29 | | 16 | 0.06 | 2.1 |
| 16-Apr-07 | Maxx | 8.2 | 1330 | 422 | 480 | 186 | 0.75 | < 1 | 130 | 74 | 38 | 4.3 | < 0.05 | 0.046 | 0.3 | | 17 | 0.04 | 4.1 |
| 21-Jun-07 | INV | | | | | | | | | | | | | | | | | | |
| 16-Aug-07 | INV | | | | | | | | | | | | | | | | | | |
| 14-Nov-07 | INV | | | | | | | | | | | | | | | | | | |
| 06-May-08 | INV | | | | | | | | | | | | | | | | | | |
| 20-Jun-08 | INV | | | | | | | | | | | | | | | | | | |
| 15-Sep-08 | INV | | | | | | | | | | | | | | | | | | |
| 27-Nov-08 | INV | | | | | | | | | | | | | | | | | | |
| 01-May-09 | Plugg | | | | | | | | | | | | | | | | | | |
| 26-Jun-09 | Maxx | 7.6 | 5400 | 888 | 1400 | 1660 | 6.8 | 12 | 290 | 600 | 170 | 18 | 37 | 0.5 | 23 | | 13 | 0.02 | < 0.1 |
| 31-Aug-09 | INSV | | | | | | | | | | | | | | | | | | |
| 19-Nov-09 | Maxx | 7.4 | 5760 | 935 | 1400 | 1390 | 7 | 1 | 280 | 650 | 180 | 20 | 43 | 0.44 | 18 | | 1 | < 0.01 | 0.4 |
| 20-May-10 | INSV | | | | | | | | | | | | | | | | | | |
| 02-Nov-10 | Maxx | 7.39 | 6180 | 1020 | 1400 | 1520 | 8 | 13 | 280 | 710 | 180 | 19 | 45 | 0.54 | 18 | | 10 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

**Monitor**

**57-I**
**Outwash**
**18.5 - 26.1 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| 11-Apr-05 | Philip | 7.66 | 1569 | 556 | 649.6 | 214 | 0.104 | < 1 | 152 | 72.6 | 65.4 | 1.4 | 4.47 | 0.056 | 0.19 | | 16.9 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 7.91 | 1560 | 592 | 656 | 187 | 0.12 | 1 | 157 | 77.2 | 75.6 | 1.5 | 5.35 | 0.06 | 1.52 | | 12.3 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 8.04 | 1470 | 591 | 693 | 183 | 0.11 | < 1 | 150 | 69 | 66 | | 4.2 | 0.057 | 1.39 | | 1 | 0.02 | < 0.1 |
| 15-Nov-05 | MAX | 8.09 | 1350 | 597 | 610 | 185 | 0.12 | < 1 | 170 | 76 | 76 | 1.7 | 5.5 | 0.061 | 1.35 | | 11 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.2 | 1440 | 500 | 660 | 193 | 0.11 | < 1 | 150 | 80 | 69 | 1.6 | 4.3 | 0.051 | 1.36 | | 17 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.1 | 1510 | 552 | 630 | 196 | 0.098 | < 1 | 150 | 75 | 66 | 1.5 | 4.4 | 0.052 | 1.35 | | 17 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 7.9 | 1460 | 532 | 640 | 192 | 0.14 | < 1 | 140 | 81 | 69 | 1.5 | 3.7 | 0.059 | 1.35 | | 14 | < 0.01 | 7.6 |
| 24-Nov-06 | MAX | 8 | 1500 | 585 | 630 | 185 | 0.15 | < 1 | 140 | 73 | 66 | 1.5 | 4.2 | 0.051 | 1.61 | | 10 | < 0.01 | < 0.1 |
| 16-Apr-07 | Maxx | 8.2 | 1560 | 559 | 650 | 213 | 0.3 | 2 | 140 | 88 | 72 | 1.6 | 3.7 | 0.046 | 1.38 | | 7 | < 0.01 | < 0.1 |
| 21-Jun-07 | Maxx | 8 | 1570 | 637 | 800 | 191 | 0.31 | 5 | 180 | 94 | 87 | 1.8 | 5.3 | 0.058 | 1.47 | | 5 | < 0.01 | < 0.1 |
| 16-Aug-07 | Maxx | 8.1 | 1690 | 699 | 830 | 249 | 0.46 | < 1 | 170 | 100 | 97 | 1.9 | 5 | 0.062 | 1.73 | | 2 | < 0.01 | < 0.1 |
| 14-Nov-07 | Maxx | 8 | 1810 | 735 | 790 | 185 | 0.3 | < 1 | 180 | 83 | 85 | 1.7 | 6.2 | 0.069 | 1.77 | | 2 | < 0.01 | < 0.1 |
| 06-May-08 | Maxx | 8.1 | 1730 | 637 | 710 | 225 | 0.45 | < 1 | 150 | 95 | 80 | 1.7 | 4.4 | 0.053 | 1.4 | | 2 | 0.01 | < 0.1 |
| 20-Jun-08 | Maxx | 8.2 | 1760 | 643 | 800 | 217 | 0.44 | < 1 | 170 | 110 | 93 | 2 | 4.4 | 0.065 | 1.4 | | 1 | < 0.01 | < 0.1 |
| 15-Sep-08 | Maxx | 8.1 | 1860 | 689 | 830 | 226 | 0.56 | < 1 | 170 | 110 | 96 | 2 | 5.1 | 0.058 | 1.5 | | 1 | < 0.01 | < 0.1 |
| 27-Nov-08 | Maxx | 8.1 | 1810 | 704 | 790 | 231 | 0.46 | < 1 | 170 | 100 | 91 | 1.7 | 4.9 | 0.06 | 1.6 | | 1 | < 0.01 | < 0.1 |
| 04-May-09 | Maxx | 7.8 | 1790 | 676 | 820 | 221 | 0.47 | < 1 | 170 | 110 | 95 | 1.7 | 5.6 | 0.072 | 1.6 | | 1 | < 0.01 | < 0.1 |
| 26-Jun-09 | Maxx | 7.9 | 1830 | 689 | 860 | 237 | 0.51 | 23 | 180 | 110 | 100 | 1.8 | 5.9 | 0.069 | 1.6 | | 1 | < 0.01 | < 0.1 |
| 31-Aug-09 | Maxx | 7.5 | 2040 | 630 | 880 | 271 | 0.97 | < 1 | 170 | 130 | 110 | 2.2 | 3.3 | 0.081 | 1.8 | | 1 | < 0.01 | < 0.1 |
| 19-Nov-09 | Maxx | 7.8 | 1940 | 737 | 900 | 229 | 0.48 | < 1 | 190 | 100 | 100 | 1.9 | 6.4 | 0.074 | 1.6 | | 1 | < 0.01 | < 0.1 |
| 20-May-10 | Maxx | 7.7 | 1870 | 690 | 800 | 230 | 0.49 | < 1 | 160 | 100 | 95 | 1.7 | 5.5 | 0.064 | 1.5 | | 1 | < 0.01 | < 0.1 |
| 02-Nov-10 | Maxx | 7.81 | 1970 | 699 | 750 | 254 | 0.61 | 3 | 160 | 110 | 89 | 1.7 | 3.7 | 0.063 | 1.5 | | 1 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

**Monitor**

**58-I**
**Outwash**
**18.9 - 20.4 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| 11-Apr-05 | Philip | 7.49 | 1116 | 495 | 537.8 | 82.7 | 0.096 | < 1 | 110 | 23.1 | 63.7 | 1.3 | < 0.03 | 0.133 | 1.52 | | 0.8 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 8.06 | 1070 | 519 | 526 | 75.5 | 0.08 | 1 | 114 | 23.6 | 67.7 | 1.5 | < 0.05 | 0.152 | 1.42 | | 0.7 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 7.79 | 1350 | 642 | 685 | 137 | 0.43 | < 1 | 130 | 63 | 95 | | 0.3 | 0.11 | 1.13 | | 1 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.05 | 1050 | 558 | 610 | 104 | 0.22 | < 1 | 120 | 40 | 78 | 1.6 | 1.4 | 0.082 | 1.38 | | 1 | < 0.01 | 0.3 |
| 28-Apr-06 | Maxx | 8.2 | 1180 | 574 | 650 | 89 | 0.11 | < 1 | 130 | 32 | 81 | 1.7 | 4.5 | 0.088 | 1.55 | | 1 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.1 | 1200 | 569 | 580 | 100 | 0.16 | < 1 | 110 | 31 | 72 | 1.4 | 0.13 | 0.097 | 1.28 | | 1 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 7.8 | 1240 | 587 | 640 | 110 | 0.2 | < 1 | 120 | 39 | 82 | 1.6 | 2.4 | 0.092 | 1.43 | | 1 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8 | 1170 | 557 | 580 | 88 | 0.12 | < 1 | 110 | 26 | 71 | 1.4 | < 0.05 | 0.11 | 1.41 | | 1 | < 0.01 | < 0.1 |
| 16-Apr-07 | Maxx | 8.2 | 1120 | 530 | 580 | 86 | 0.07 | < 1 | 110 | 24 | 72 | 1.4 | < 0.05 | 0.18 | 1.6 | | 3 | < 0.01 | < 0.1 |
| 21-Jun-07 | Maxx | 8.1 | 1210 | 548 | 670 | 104 | 0.17 | < 1 | 130 | 35 | 82 | 1.6 | < 0.05 | 0.15 | 1.73 | | 2 | < 0.01 | < 0.1 |
| 16-Aug-07 | Maxx | 8.1 | 1130 | 534 | 620 | 97 | 0.13 | < 1 | 120 | 30 | 78 | 1.5 | < 0.05 | 0.17 | 1.36 | | 1 | < 0.01 | < 0.1 |
| 14-Nov-07 | Maxx | 8 | 1190 | 530 | 610 | 101 | 0.14 | < 1 | 120 | 28 | 76 | 1.5 | < 0.1 | 0.17 | 1.51 | | 1 | < 0.01 | < 0.1 |
| 06-May-08 | Maxx | 8.1 | 1220 | 543 | 590 | 89 | 0.15 | < 1 | 120 | 29 | 72 | 2 | < 0.1 | 0.15 | 1.2 | | 1 | < 0.01 | < 0.1 |
| 19-Jun-08 | Maxx | 8.1 | 1310 | 550 | 600 | 106 | 0.27 | < 1 | 120 | 35 | 75 | 1.5 | < 0.1 | 0.088 | 0.95 | | 1 | < 0.01 | < 0.1 |
| 15-Sep-08 | Maxx | 8.2 | 1370 | 580 | 640 | 131 | 0.26 | < 1 | 120 | 37 | 81 | 2 | 1.2 | 0.12 | 1.3 | | 1 | < 0.01 | < 0.1 |
| 27-Nov-08 | INV | | | | | | | | | | | | | | | | | | |
| 04-May-09 | Maxx | 7.8 | 1250 | 541 | 640 | 108 | 0.15 | < 1 | 130 | 31 | 79 | 1.4 | < 0.1 | 0.19 | 1.4 | | 1 | < 0.01 | < 0.1 |
| 26-Jun-09 | Maxx | 7.9 | 1260 | 537 | 640 | 115 | 0.2 | < 1 | 130 | 39 | 79 | 2.5 | < 0.1 | 0.094 | 1.9 | | 1 | < 0.01 | < 0.1 |
| 31-Aug-09 | Maxx | 7.7 | 1270 | 538 | 620 | 111 | 0.25 | < 1 | 120 | 30 | 75 | 1.4 | < 0.1 | 0.095 | 1.3 | | 1 | < 0.01 | < 0.1 |
| 19-Nov-09 | Maxx | 7.8 | 1280 | 534 | 650 | 108 | 0.19 | < 1 | 130 | 32 | 81 | 1.6 | 4.3 | 0.094 | 1.6 | | 2 | < 0.01 | < 0.1 |
| 20-May-10 | Maxx | 7.7 | 1250 | 507 | 620 | 119 | 0.1 | < 1 | 120 | 28 | 77 | 1.6 | 1 | 0.1 | 1.3 | | 3 | 0.07 | 0.3 |
| 02-Nov-10 | Maxx | 7.9 | 1400 | 571 | 600 | 137 | 0.28 | < 1 | 110 | 37 | 76 | 1.4 | < 0.1 | 0.1 | 1.2 | | 1 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| **Monitor** | 11-Apr-05 | Philip | 7.55 | 19680 | 7490 | 2235 | 2170 | 27.7 | 63 | 47.3 | 1850 | 514 | 1140 | 9.53 | 0.057 | 9.33 | | 1 | < 2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.3 | 17500 | 7630 | 2360 | 2270 | 24.5 | 110 | 47 | 1680 | 469 | 1130 | 3.8 | 0.05 | 846 | | 5 | < 10 | < 1 |
| **59-I** | 31-Aug-05 | MAX | 8.6 | 18000 | 8490 | 2510 | 2330 | 47 | 106 | 46 | 2300 | 630 | | 7.2 | 0.068 | 862 | | 10 | 0.05 | < 0.1 |
| **Waste** | 15-Nov-05 | MAX | 8.21 | 15900 | 8330 | 2400 | 2430 | 38 | 110 | 46 | 2000 | 560 | 1200 | 20 | 0.066 | 192 | | 2 | 0.05 | < 0.1 |
| **10.8 - 20.0 m** | 28-Apr-06 | INV | | | | | | | | | | | | | | | | | | |
| | 07-Jun-06 | INV | | | | | | | | | | | | | | | | | | |
| | 30-Aug-06 | MAX | 7.7 | 18900 | 8350 | 2600 | 2430 | 40 | 118 | 40 | 2200 | 610 | 1300 | 7.9 | 0.073 | 799 | | 19 | < 0.1 | < 1 |
| | 24-Nov-06 | MAX | 7.8 | 18900 | 8140 | 2300 | 2440 | 34 | 110 | 43 | 1900 | 540 | 1200 | 4.7 | 0.058 | 960 | | 5 | < 0.1 | < 1 |
| | 16-Apr-07 | Maxx | 8.1 | 18800 | 8120 | 2700 | 2610 | 40 | 290 | 44 | 2200 | 640 | 1300 | 6.9 | 0.057 | 806 | | 1 | < 0.2 | < 2 |
| | 21-Jun-07 | Maxx | 7.7 | 18100 | 7520 | 2400 | 2400 | 37 | 200 | 48 | 2100 | 560 | 1300 | 8.9 | 0.046 | 476 | | 46 | < 0.2 | < 2 |
| | 16-Aug-07 | Maxx | 7.7 | 17000 | 7030 | 2500 | 2380 | 38 | 160 | 51 | 2200 | 590 | 1300 | 11 | 0.076 | 809 | | 10 | < 0.1 | < 1 |
| | 14-Nov-07 | Maxx | 7.9 | 18400 | 7590 | 2200 | 2430 | 36 | 140 | 43 | 1900 | 510 | 1200 | 8.7 | 0.06 | 902 | | 10 | < 0.1 | < 1 |
| | 06-May-08 | Maxx | 8 | 18800 | 7650 | 2300 | 2560 | 38 | 108 | 41 | 1900 | 530 | 1200 | 5.9 | 0.046 | 730 | | 1 | < 0.1 | < 1 |
| | 19-Jun-08 | Maxx | 7.7 | 19100 | 7750 | 2000 | 2330 | 30 | 130 | 35 | 1700 | 460 | 1000 | 5.1 | 0.047 | 950 | | 5 | < 0.1 | < 1 |
| | 15-Sep-08 | Maxx | 8 | 18700 | 7450 | 2300 | 2380 | 32 | 108 | 44 | 1900 | 530 | 1200 | 8.4 | 0.052 | 790 | | 1 | < 0.1 | < 1 |
| | 27-Nov-08 | Maxx | 8.1 | 19200 | 7780 | 2200 | 2660 | 31 | 71 | 37 | 1800 | 520 | 1100 | 4 | 0.045 | 930 | | 1 | < 0.1 | < 1 |
| | 01-May-09 | Maxx | 7.8 | 19000 | 7570 | 2800 | 2500 | 34 | 92 | 52 | 2300 | 650 | 1300 | 8.8 | 0.054 | 910 | | 1 | < 0.1 | < 1 |
| | 26-Jun-09 | Maxx | 7.8 | 18800 | 7570 | 2500 | 2460 | 36 | 39 | 43 | 2100 | 570 | 1200 | 23 | 0.061 | 860 | | 10 | < 0.1 | < 1 |
| | 31-Aug-09 | Maxx | 7.9 | 19400 | 7900 | 2500 | 2410 | 40 | 90 | 44 | 2000 | 590 | 1200 | 2.4 | 0.048 | 930 | | 26 | 0.01 | < 0.1 |
| | 19-Nov-09 | Maxx | 7.8 | 18900 | 7610 | 2600 | 2340 | 33 | 82 | 44 | 2100 | 600 | 1300 | 3.9 | 0.047 | 710 | | 44 | < 0.1 | < 1 |
| | 20-May-10 | Maxx | 7.7 | 19100 | 7570 | 2200 | 2430 | 30 | 102 | 39 | 1800 | 500 | 1100 | 2.3 | 0.043 | 910 | | 10 | < 0.25 | < 2.5 |
| | 02-Nov-10 | Maxx | 7.85 | 19700 | 7890 | 2300 | 2610 | 34 | 140 | 33 | 1900 | 550 | 1200 | 5.2 | < 0.002 | 860 | | 22 | < 0.1 | < 1 |
| **Monitor** | 11-Apr-05 | INV | | | | | | | | | | | | | | | | | | |
| | 21-Jun-05 | INV | | | | | | | | | | | | | | | | | | |
| **61-I** | 31-Aug-05 | INV | | | | | | | | | | | | | | | | | | |
| **Outwash** | 15-Nov-05 | INV | | | | | | | | | | | | | | | | | | |
| **23.8 - 25.3 m** | 28-Apr-06 | Broke | | | | | | | | | | | | | | | | | | |
| | 07-Jun-06 | Broke | | | | | | | | | | | | | | | | | | |
| | 30-Aug-06 | Broke | | | | | | | | | | | | | | | | | | |
| | 24-Nov-06 | Broke | | | | | | | | | | | | | | | | | | |
| | 24-Nov-06 | Broke | | | | | | | | | | | | | | | | | | |
| | 24-Nov-06 | INV | | | | | | | | | | | | | | | | | | |
| | 24-Nov-06 | INV | | | | | | | | | | | | | | | | | | |
| | 16-Apr-07 | Broke | | | | | | | | | | | | | | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| **Monitor** | 21-Jun-07 | INV | | | | | | | | | | | | | | | | | | |
| **61-IR** | 16-Aug-07 | INV | | | | | | | | | | | | | | | | | | |
| **Outwash** | 14-Nov-07 | INV | | | | | | | | | | | | | | | | | | |
| **24.7 -26.7 m** | 06-May-08 | INV | | | | | | | | | | | | | | | | | | |
| | 20-Jun-08 | INV | | | | | | | | | | | | | | | | | | |
| | 15-Sep-08 | INV | | | | | | | | | | | | | | | | | | |
| | 27-Nov-08 | INV | | | | | | | | | | | | | | | | | | |
| | 01-May-09 | INSV | | | | | | | | | | | | | | | | | | |
| | 26-Jun-09 | INV | | | | | | | | | | | | | | | | | | |
| | 31-Aug-09 | INSV | | | | | | | | | | | | | | | | | | |
| | 19-Nov-09 | INSV | | | | | | | | | | | | | | | | | | |
| | 20-May-10 | INSV | | | | | | | | | | | | | | | | | | |
| | 02-Nov-10 | INSV | | | | | | | | | | | | | | | | | | |
| **Monitor** | 11-Apr-05 | Dry | | | | | | | | | | | | | | | | | | |
| **63-I** | 21-Jun-05 | Dry | | | | | | | | | | | | | | | | | | |
| **Outwash** | 31-Aug-05 | Dry | | | | | | | | | | | | | | | | | | |
| **15.1 - 16.6 m** | 15-Nov-05 | Dry | | | | | | | | | | | | | | | | | | |
| | 28-Apr-06 | INV | | | | | | | | | | | | | | | | | | |
| | 07-Jun-06 | INV | | | | | | | | | | | | | | | | | | |
| | 30-Aug-06 | INV | | | | | | | | | | | | | | | | | | |
| | 24-Nov-06 | INV | | | | | | | | | | | | | | | | | | |
| | 16-Apr-07 | INV | | | | | | | | | | | | | | | | | | |
| | 21-Jun-07 | Maxx | 8.1 | 1730 | 712 | 660 | 198 | 0.25 | 4 | 140 | 190 | 76 | 1.9 | 0.11 | < 0.002 | 1.08 | | 9 | < 0.01 | < 0.1 |
| | 16-Aug-07 | INV | | | | | | | | | | | | | | | | | | |
| | 14-Nov-07 | INV | | | | | | | | | | | | | | | | | | |
| | 06-May-08 | Maxx | 8.2 | 1930 | 772 | 740 | 220 | 0.3 | 4 | 150 | 180 | 85 | 2 | 19 | 0.51 | 1 | | 4 | < 0.01 | < 0.1 |
| | 20-Jun-08 | INV | | | | | | | | | | | | | | | | | | |
| | 15-Sep-08 | Maxx | 8.2 | 1950 | 775 | 730 | 213 | 0.29 | 4 | 140 | 180 | 89 | 2.1 | 0.29 | 0.12 | 1.6 | | 1 | 0.02 | < 0.1 |
| | 26-Nov-08 | Maxx | 8 | 2070 | 831 | 800 | 237 | 0.28 | < 1 | 160 | 190 | 99 | 1.4 | 16 | 0.45 | 1.2 | | 4 | < 0.01 | < 0.1 |
| | 01-May-09 | Maxx | 7.5 | 2100 | 832 | 740 | 220 | 0.27 | 1 | 150 | 160 | 89 | 1.2 | 16 | 0.38 | 1.1 | | 8 | < 0.01 | < 0.1 |
| | 26-Jun-09 | Maxx | 7.6 | 2090 | 828 | 730 | 249 | 0.26 | < 1 | 150 | 170 | 88 | 1.4 | 14 | 0.3 | 1.5 | | 1 | < 0.01 | < 0.1 |
| | 31-Aug-09 | Maxx | 7.6 | 2080 | 820 | 780 | 232 | 0.3 | 3 | 160 | 160 | 91 | 1.4 | 14 | 0.39 | 1.4 | | 1 | < 0.01 | < 0.1 |
| | 19-Nov-09 | Maxx | 7.7 | 2100 | 816 | 830 | 241 | 0.34 | 11 | 170 | 180 | 100 | 1.4 | 13 | 0.36 | 1.4 | | 7 | 0.02 | < 0.1 |
| | 20-May-10 | INSV | | | | | | | | | | | | | | | | | | |
| | 02-Nov-10 | INSV | | | | | | | | | | | | | | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| **Monitor** | 11-Apr-05 | Philip | 7.7 | 1608 | 689 | 504.4 | 136 | 0.312 | 3 | 81.6 | 154 | 72.9 | 13.2 | 5.22 | 0.183 | 1.67 | | 9.1 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 7.64 | 1950 | 964 | 718 | 127 | 0.27 | 13 | 177 | 166 | 76.3 | 12.7 | 45.2 | 0.63 | 11 | | 7 | < 0.1 | < 0.1 |
| **65-I** | 31-Aug-05 | MAX | 7.71 | 1990 | 1000 | 720 | 170 | 0.31 | 4 | 190 | 230 | 90 | | 23 | 0.48 | 11 | | 7 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 7.81 | 1510 | 731 | 530 | 150 | 0.25 | 5 | 120 | 190 | 65 | 13 | 16 | 0.21 | 11.7 | | 68 | 0.02 | < 0.1 |
| **Waste/Fill** | 28-Apr-06 | Maxx | 7.8 | 2430 | 1070 | 960 | 160 | 0.32 | 17 | 220 | 280 | 100 | 29 | 32 | 0.82 | 11.3 | | 196 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 7.8 | 2670 | 1190 | 940 | 191 | 0.3 | 3 | 200 | 270 | 110 | 35 | 4.1 | 0.6 | 11.1 | | 182 | < 0.01 | < 0.1 |
| **5.7 - 10.3 m** | 30-Aug-06 | MAX | 7.7 | 3140 | 1390 | 1000 | 300 | 0.39 | 4 | 200 | 380 | 120 | 41 | 16 | 0.35 | 16.8 | | 102 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8 | 2230 | 981 | 840 | 143 | 0.31 | 7 | 210 | 180 | 78 | 17 | 57 | 0.71 | 20.2 | | 172 | < 0.01 | < 0.1 |
| | 16-Apr-07 | Maxx | 7.7 | 2400 | 1060 | 980 | 170 | 0.34 | 15 | 220 | 210 | 100 | 24 | 19 | 0.83 | 10.9 | | 145 | < 0.01 | < 0.1 |
| | 21-Jun-07 | Maxx | 7.8 | 3590 | 1590 | 1400 | 305 | 1.1 | 21 | 250 | 360 | 180 | 63 | 4.5 | 0.63 | 28.8 | | 203 | < 0.01 | < 0.1 |
| | 16-Aug-07 | Maxx | 7.8 | 3980 | 1750 | 1400 | 366 | 1 | 9 | 230 | 500 | 190 | 82 | 38 | 0.35 | 36.1 | | 172 | < 0.01 | < 0.1 |
| | 14-Nov-07 | Maxx | 8 | 3260 | 1230 | 820 | 356 | 0.69 | < 1 | 110 | 480 | 130 | 62 | 0.12 | 0.11 | 25.1 | | 82 | 0.02 | 0.2 |
| | 06-May-08 | Maxx | 8.1 | 2630 | 1030 | 1100 | 170 | 0.48 | 3 | 250 | 210 | 110 | 33 | 38 | 1.2 | 13 | | 253 | < 0.01 | < 0.1 |
| | 20-Jun-08 | Maxx | 7.8 | 3150 | 1250 | 1100 | 236 | 0.59 | 4 | 240 | 260 | 120 | 40 | 22 | 1.2 | 15 | | 246 | < 0.01 | < 0.1 |
| | 15-Sep-08 | Maxx | 8.1 | 2800 | 1150 | 970 | 230 | 0.56 | 3 | 210 | 280 | 110 | 34 | 33 | 0.84 | 13 | | 124 | < 0.01 | < 0.1 |
| | 27-Nov-08 | Maxx | 7.8 | 2340 | 972 | 790 | 207 | 0.39 | 3 | 170 | 220 | 89 | 27 | 15 | 0.6 | 12 | | 122 | 0.02 | 0.6 |
| | 01-May-09 | Maxx | 7.5 | 2360 | 994 | 1000 | 137 | 0.36 | 3 | 230 | 190 | 100 | 23 | 24 | 1.2 | 12 | | 155 | < 0.01 | < 0.1 |
| | 26-Jun-09 | Maxx | 7.6 | 3370 | 1420 | 1400 | 244 | 0.9 | 3 | 260 | 300 | 170 | 59 | 37 | 0.98 | 22 | | 262 | < 0.01 | 0.2 |
| | 31-Aug-09 | Maxx | 7.6 | 3330 | 1320 | 1200 | 248 | 0.79 | 2 | 250 | 300 | 140 | 49 | 36 | 0.8 | 20 | | 216 | < 0.01 | < 0.1 |
| | 19-Nov-09 | Maxx | 8 | 2400 | 756 | 910 | 262 | 0.63 | 1 | 160 | 320 | 120 | 44 | 13 | 0.45 | 6.1 | | 117 | 0.05 | 13 |
| | 20-May-10 | Maxx | 7.6 | 2720 | 1000 | 1000 | 194 | 0.5 | 2 | 230 | 230 | 110 | 29 | 18 | 1.2 | 9.3 | | 310 | < 0.01 | < 0.1 |
| | 02-Nov-10 | Maxx | 7.62 | 3260 | 1280 | 1100 | 244 | 0.66 | 4 | 240 | 320 | 130 | 52 | 0.61 | 0.77 | 8.2 | | 255 | < 0.01 | 0.8 |
| **Monitor** | 11-Apr-05 | Broke | | | | | | | | | | | | | | | | | | |
| | 21-Jun-05 | Broke | | | | | | | | | | | | | | | | | | |
| **66-I** | 31-Aug-05 | Broke | | | | | | | | | | | | | | | | | | |
| | 15-Nov-05 | Broke | | | | | | | | | | | | | | | | | | |
| **Outwash** | 28-Apr-06 | Broke | | | | | | | | | | | | | | | | | | |
| | 07-Jun-06 | Broke | | | | | | | | | | | | | | | | | | |
| **14.3 - 19.6 m** | 30-Aug-06 | Broke | | | | | | | | | | | | | | | | | | |
| | 24-Nov-06 | Broke | | | | | | | | | | | | | | | | | | |
| | 16-Apr-07 | Broke | | | | | | | | | | | | | | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - General Analysis - - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | Lab | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | BOD mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | | 6.5-8.5 a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | | 500 a | 1.0 ht | 10.0 h |
| **Monitor** | 21-Jun-07 | Maxx | 8 | 3230 | 802 | 910 | 653 | 0.55 | 30 | 170 | 450 | 120 | 32 | 30 | 0.32 | 14.6 | | 4 | < 0.01 | < 0.1 |
| **66-IR** | 16-Aug-07 | INV | | | | | | | | | | | | | | | | | | |
| **Outwash** | 14-Nov-07 | INV | | | | | | | | | | | | | | | | | | |
| **18.4 - 20.6 m** | 06-May-08 | INV | | | | | | | | | | | | | | | | | | |
| | 20-Jun-08 | INV | | | | | | | | | | | | | | | | | | |
| | 15-Sep-08 | INV | | | | | | | | | | | | | | | | | | |
| | 27-Nov-08 | INV | | | | | | | | | | | | | | | | | | |
| | 01-May-09 | INSV | | | | | | | | | | | | | | | | | | |
| | 26-Jun-09 | INV | | | | | | | | | | | | | | | | | | |
| | 31-Aug-09 | INSV | | | | | | | | | | | | | | | | | | |
| | 19-Nov-09 | Maxx | 7.4 | 4700 | 763 | 1500 | 1010 | 0.27 | 2 | 310 | 500 | 170 | 16 | 42 | 1.2 | 2.7 | | 263 | < 0.01 | < 0.1 |
| | 20-May-10 | Maxx | 7.3 | 4900 | 783 | 1500 | 1090 | 0.36 | 2 | 300 | 430 | 180 | 8.9 | 34 | 0.64 | 2 | | 264 | < 0.01 | < 0.1 |
| | 02-Nov-10 | Maxx | 7.58 | 5560 | 851 | 1700 | 1280 | 0.5 | 6 | 350 | 560 | 200 | 6.7 | < 0.1 | 0.73 | 0.88 | | 244 | < 0.01 | < 0.1 |
| **Monitor** | 11-Apr-05 | INV | | | | | | | | | | | | | | | | | | |
| **67-I** | 21-Jun-05 | INV | | | | | | | | | | | | | | | | | | |
| **Waste** | 31-Aug-05 | INV | | | | | | | | | | | | | | | | | | |
| **16.2 - 20.7 m** | 15-Nov-05 | INV | | | | | | | | | | | | | | | | | | |
| | 28-Apr-06 | INV | | | | | | | | | | | | | | | | | | |
| | 07-Jun-06 | INV | | | | | | | | | | | | | | | | | | |
| | 30-Aug-06 | INV | | | | | | | | | | | | | | | | | | |
| | 24-Nov-06 | INV | | | | | | | | | | | | | | | | | | |
| | 16-Apr-07 | Maxx | 7.8 | 3080 | 1040 | 950 | 434 | 3.3 | 27 | 120 | 370 | 160 | 28 | 3.4 | 0.16 | 10.7 | | 18 | < 0.01 | < 0.1 |
| | 21-Jun-07 | INV | | | | | | | | | | | | | | | | | | |
| | 16-Aug-07 | Maxx | 8 | 2490 | 862 | 920 | 383 | 1.7 | 5 | 140 | 220 | 140 | 23 | 7.3 | 0.14 | 21.7 | | 2 | < 0.01 | < 0.1 |
| | 14-Nov-07 | Maxx | 7.7 | 2450 | 828 | 970 | 356 | 0.9 | 2 | 180 | 170 | 130 | 14 | < 0.1 | 0.19 | 7.57 | | 4 | < 0.01 | < 0.1 |
| | 06-May-08 | Maxx | 7.8 | 2780 | 972 | 930 | 419 | 1.3 | 210 | 160 | 190 | 130 | 20 | 100 | 0.19 | 32 | | 1 | < 0.01 | < 0.1 |
| | 19-Jun-08 | Maxx | 8 | 2770 | 946 | 950 | 348 | 1.6 | < 1 | 150 | 220 | 140 | 21 | 8 | 0.18 | 14 | | 11 | < 0.01 | < 0.1 |
| | 15-Sep-08 | Maxx | 8.1 | 2500 | 873 | 920 | 348 | 1.1 | 28 | 160 | 170 | 130 | 19 | 33 | 0.26 | 13 | | 12 | < 0.01 | < 0.1 |
| | 27-Nov-08 | Maxx | 7.9 | 2320 | 859 | 830 | 346 | 0.76 | < 1 | 150 | 150 | 110 | 12 | 20 | 0.21 | 8.8 | | 1 | < 0.01 | < 0.1 |
| | 01-May-09 | Maxx | 7.7 | 2310 | 817 | 920 | 287 | 0.94 | 4 | 180 | 160 | 110 | 15 | 4.4 | 0.24 | 11 | | 21 | < 0.01 | < 0.1 |
| | 26-Jun-09 | Maxx | 7.6 | 2430 | 782 | 960 | 369 | 0.9 | < 1 | 170 | 190 | 130 | 15 | < 0.1 | 0.27 | 9.7 | | 23 | 0.04 | < 0.1 |
| | 31-Aug-09 | Maxx | 7.4 | 2560 | 737 | 960 | 438 | 0.83 | < 1 | 190 | 170 | 120 | 9.8 | 38 | 0.21 | 3.9 | | 15 | < 0.01 | < 0.1 |
| | 19-Nov-09 | Maxx | 7.5 | 2740 | 755 | 1100 | 483 | 0.79 | 6 | 210 | 200 | 130 | 8 | 40 | 0.25 | 3.1 | | 4 | < 0.01 | 0.2 |
| | 20-May-10 | Maxx | 7.5 | 2940 | 799 | 1000 | 520 | 1.3 | 1 | 200 | 230 | 130 | 7.3 | 0.11 | 0.28 | 2.9 | | 13 | 0.07 | < 0.1 |
| | 02-Nov-10 | Maxx | 7.76 | 2990 | 788 | 1100 | 524 | 1.6 | 3 | 220 | 290 | 130 | 7.2 | < 0.1 | 0.35 | 1.5 | | 4 | 0.02 | 0.2 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I | Br | Cr | Ni | Zn |
| | | | mg/L | mg/L | mg/L | mg/L | mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** | 11-Apr-05 | INV | | | | | |
| | 21-Jun-05 | INV | | | | | |
| **1-IR** | 31-Aug-05 | INV | | | | | |
| **Outwash** | 15-Nov-05 | INV | | | | | |
| | 28-Apr-06 | INV | | | | | |
| | 07-Jun-06 | INV | | | | | |
| | 30-Aug-06 | INV | | | | | |
| | 24-Nov-06 | INV | | | | | |
| | 10-Apr-07 | INV | | | | | |
| | 18-Jun-07 | INV | | | | | |
| | 13-Aug-07 | INV | | | | | |
| | 13-Nov-07 | INV | | | | | |
| | 06-May-08 | INV | | | | | |
| | 20-Jun-08 | INV | | | | | |
| | 15-Sep-08 | INV | | | | | |
| | 26-Nov-08 | INV | | | | | |
| | 01-May-09 | MAX | | | | | |
| | 26-Jun-09 | INV | | | | | |
| | 31-Aug-09 | INSV | | | | | |
| | 19-Nov-09 | INSV | | | | | |
| | 20-May-10 | INSV | | | | | |
| **Monitor** | 11-Apr-05 | Philip | 1.3 | 4.4 | < 0.005 | 0.044 | < 0.005 |
| | 21-Jun-05 | MAX | 1.4 | 0.48 | < 0.005 | 0.072 | < 0.005 |
| **51-IR** | 31-Aug-05 | MAX | 1.5 | 3 | 0.067 | 0.1 | < 0.005 |
| **Waste** | 15-Nov-05 | MAX | | 4 | < 0.05 | 0.07 | < 0.05 |
| **7.3 - 22.6 m** | 28-Apr-06 | Maxx | 1.3 | 5 | < 0.03 | 0.12 | < 0.03 |
| | 07-Jun-06 | Maxx | 1.5 | < 10 | < 0.03 | 0.099 | < 0.03 |
| | 30-Aug-06 | INV | | | | | |
| | 24-Nov-06 | MAX | 1.4 | 4 | 0.022 | 0.098 | < 0.005 |
| | 16-Apr-07 | Maxx | 1.5 | 4 | < 0.03 | 0.065 | < 0.03 |
| | 21-Jun-07 | Maxx | 1.4 | 19 | 0.019 | 0.075 | 0.006 |
| | 16-Aug-07 | Maxx | 1.6 | < 10 | < 0.03 | 0.085 | < 0.03 |
| | 14-Nov-07 | Maxx | 1.4 | < 10 | < 0.05 | 0.065 | < 0.05 |
| | 06-May-08 | Maxx | 1.5 | 4 | < 0.03 | 0.064 | < 0.03 |
| | 19-Jun-08 | Maxx | 1.6 | 4 | < 0.05 | 0.085 | < 0.05 |
| | 15-Sep-08 | Maxx | 1.6 | 4 | < 0.03 | 0.081 | < 0.03 |
| | 27-Nov-08 | Maxx | 2.4 | 7 | < 0.05 | 0.22 | 0.095 |
| | 04-May-09 | Maxx | < 1 | 5 | < 0.05 | 0.12 | < 0.05 |
| | 26-Jun-09 | Maxx | 1.9 | < 10 | < 0.05 | 0.22 | < 0.05 |
| | 31-Aug-09 | Maxx | 1.7 | < 10 | < 0.03 | 0.28 | 0.049 |
| | 19-Nov-09 | Maxx | 2.1 | 8 | 0.05 | 0.29 | 0.05 |
| | 20-May-10 | Maxx | 2.2 | 9 | < 0.05 | 0.26 | < 0.05 |
| | 02-Nov-10 | Maxx | 2.2 | < 10 | < 0.05 | 0.3 | < 0.05 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I | Br | Cr | Ni | Zn |
| | | | mg/L | mg/L | mg/L | mg/L | mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** | 11-Apr-05 | Philip | 1.3 | 3.7 | < 0.005 | 0.05 | 0.01 |
| | 21-Jun-05 | MAX | 1 | < 18 | < 0.005 | 0.052 | 0.017 |
| **51-II** | 31-Aug-05 | MAX | 1.1 | < 1 | 0.009 | 0.057 | 0.019 |
| **Outwash** | 15-Nov-05 | MAX | | 4 | < 0.05 | 0.061 | < 0.05 |
| **23.6 - 26.7 m** | 28-Apr-06 | Maxx | 1.3 | 5 | 0.013 | 0.066 | 0.019 |
| | 07-Jun-06 | Maxx | 1.3 | < 10 | < 0.03 | 0.065 | 0.026 |
| | 30-Aug-06 | MAX | 0.9 | 4 | < 0.005 | 0.063 | 0.029 |
| | 24-Nov-06 | MAX | 1.2 | 4 | < 0.005 | 0.066 | 0.034 |
| | 16-Apr-07 | Maxx | 1.4 | 3 | 0.007 | 0.067 | 0.038 |
| | 21-Jun-07 | Maxx | 1.3 | 17 | 0.008 | 0.072 | 0.019 |
| | 16-Aug-07 | Maxx | 1.5 | < 10 | < 0.03 | 0.075 | < 0.03 |
| | 14-Nov-07 | Maxx | 1.2 | 3 | < 0.025 | 0.067 | 0.026 |
| | 06-May-08 | Maxx | 1.3 | 4 | < 0.03 | 0.078 | < 0.03 |
| | 19-Jun-08 | Maxx | 1.4 | 4 | < 0.001 | 0.076 | 0.017 |
| | 15-Sep-08 | Maxx | 1.5 | 4 | 0.008 | 0.069 | 0.02 |
| | 27-Nov-08 | Maxx | 1.5 | 3 | < 0.05 | 0.065 | 0.079 |
| | 04-May-09 | Maxx | 1.3 | 3 | < 0.05 | 0.076 | < 0.05 |
| | 26-Jun-09 | Maxx | 1.4 | 4 | < 0.03 | 0.068 | 0.074 |
| | 31-Aug-09 | Maxx | 1.2 | 3 | < 0.005 | 0.076 | 0.048 |
| | 19-Nov-09 | Maxx | 1.2 | 4 | < 0.001 | 0.07 | 0.049 |
| | 20-May-10 | Maxx | 1.3 | 5 | < 0.05 | 0.07 | 0.067 |
| | 02-Nov-10 | Maxx | 1.2 | < 10 | < 0.05 | 0.083 | 0.19 |
| **Monitor** | 11-Apr-05 | INV | | | | | |
| | 21-Jun-05 | INV | | | | | |
| **55-IR** | 31-Aug-05 | INV | | | | | |
| **Outwash** | 15-Nov-05 | INV | | | | | |
| **11.2 - 15.8 m** | 28-Apr-06 | INV | | | | | |
| | 07-Jun-06 | INV | | | | | |
| | 30-Aug-06 | MAX | 0.7 | 9 | < 0.05 | 0.19 | < 0.05 |
| | 24-Nov-06 | INV | | | | | |
| | 24-Nov-06 | INV | | | | | < |
| | 24-Nov-06 | MAX | 1.5 | 10 | 0.035 | 0.18 | 0.03 |
| | 24-Nov-06 | MAX | 1.5 | 10 | 0.035 | 0.18 | < 0.03 |
| | 16-Apr-07 | Maxx | 1.6 | 10 | 0.036 | 0.19 | < 0.03 |
| | 21-Jun-07 | MAX | | | | | |
| | 16-Aug-07 | INV | | | | | |
| | 14-Nov-07 | INV | | | | | |
| | 06-May-08 | INV | | | | | |
| | 20-Jun-08 | INV | | | | | |
| | 15-Sep-08 | INV | | | | | |
| | 27-Nov-08 | INV | | | | | |
| | 01-May-09 | Maxx | 0.6 | 1 | < 0.005 | 0.028 | 0.062 |
| | 26-Jun-09 | INV | | | | | |
| | 31-Aug-09 | INSV | | | | | |
| | 19-Nov-09 | Maxx | 0.6 | 1 | < 0.005 | 0.022 | 0.031 |
| | 20-May-10 | INSV | | | | | |
| | 02-Nov-10 | INSV | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I mg/L | Br mg/L | Cr mg/L | Ni mg/L | Zn mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** | 11-Apr-05 | INV | | | | | |
| | 21-Jun-05 | MAX | 0.6 | 5.68 | < 0.05 | 0.1 | < 0.05 |
| **56-IR** | 31-Aug-05 | INV | | | | | |
| **Outwash** | 15-Nov-05 | MAX | | 4 | < 0.05 | 0.11 | < 0.05 |
| **12.0 - 18.1 m** | 28-Apr-06 | INV | | | | | |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.012 | 0.011 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.007 | 0.027 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.007 | 0.025 |
| | 16-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.009 | 0.02 |
| | 21-Jun-07 | INV | | | | | |
| | 16-Aug-07 | INV | | | | | |
| | 14-Nov-07 | INV | | | | | |
| | 06-May-08 | INV | | | | | |
| | 20-Jun-08 | INV | | | | | |
| | 15-Sep-08 | INV | | | | | |
| | 27-Nov-08 | INV | | | | | |
| | 01-May-09 | Plugg | | | | | |
| | 26-Jun-09 | Maxx | 0.7 | < 10 | < 0.03 | 0.13 | 0.008 |
| | 31-Aug-09 | INSV | | | | | |
| | 19-Nov-09 | Maxx | 0.7 | 4 | < 0.005 | 0.14 | 0.009 |
| | 20-May-10 | INSV | | | | | |
| | 02-Nov-10 | Maxx | 0.7 | < 10 | < 0.005 | 0.15 | 0.006 |
| **Monitor** | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | 0.002 | < 0.005 |
| | 21-Jun-05 | MAX | 0.1 | < 0.35 | < 0.005 | 0.003 | 0.006 |
| **57-I** | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | 0.003 | < 0.005 |
| **Outwash** | 15-Nov-05 | MAX | | < 1 | < 0.005 | 0.005 | < 0.005 |
| **18.5 - 26.1 m** | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | < 0.005 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | < 0.005 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.003 | < 0.005 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.003 | < 0.005 |
| | 16-Apr-07 | Maxx | 0.2 | < 1 | < 0.005 | 0.004 | < 0.005 |
| | 21-Jun-07 | Maxx | 0.2 | < 1 | < 0.005 | 0.005 | < 0.005 |
| | 16-Aug-07 | Maxx | 0.3 | < 1 | < 0.005 | 0.007 | < 0.005 |
| | 14-Nov-07 | Maxx | 0.2 | < 1 | < 0.005 | 0.005 | 0.006 |
| | 06-May-08 | Maxx | 0.3 | < 1 | < 0.005 | 0.006 | < 0.005 |
| | 20-Jun-08 | Maxx | 0.3 | < 1 | < 0.005 | 0.006 | < 0.005 |
| | 15-Sep-08 | Maxx | 0.3 | < 1 | < 0.005 | 0.007 | < 0.005 |
| | 27-Nov-08 | Maxx | 0.3 | < 1 | < 0.005 | 0.006 | < 0.005 |
| | 04-May-09 | Maxx | 0.2 | < 1 | < 0.005 | 0.007 | < 0.005 |
| | 26-Jun-09 | Maxx | 0.3 | < 1 | < 0.005 | 0.007 | < 0.005 |
| | 31-Aug-09 | Maxx | 0.2 | < 1 | < 0.005 | 0.013 | 0.008 |
| | 19-Nov-09 | Maxx | 0.2 | < 1 | < 0.005 | 0.008 | < 0.005 |
| | 20-May-10 | Maxx | 0.2 | < 1 | < 0.005 | 0.007 | 0.007 |
| | 02-Nov-10 | Maxx | 0.4 | < 1 | < 0.005 | 0.01 | 0.006 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I mg/L | Br mg/L | Cr mg/L | Ni mg/L | Zn mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | 0.008 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | < 0.001 | 0.009 |
| **58-I** | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | 0.001 | 0.006 |
| **Outwash** | 15-Nov-05 | MAX | | < 1 | < 0.005 | 0.002 | < 0.005 |
| **18.9 - 20.4 m** | 28-Apr-06 | Maxx | < 0.1 | 2 | < 0.005 | < 0.001 | < 0.005 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 16-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 21-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 16-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 14-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.009 |
| | 06-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.006 |
| | 19-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.021 |
| | 15-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 27-Nov-08 | INV | | | | | |
| | 04-May-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.008 |
| | 26-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.005 |
| | 31-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.008 |
| | 19-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 20-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.008 |
| | 02-Nov-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.01 |
| **Monitor** | 11-Apr-05 | Philip | 2.6 | 10.8 | 0.051 | 0.286 | < 0.05 |
| | 21-Jun-05 | MAX | 2.1 | 7.6 | 0.1 | 0.29 | 0.39 |
| **59-I** | 31-Aug-05 | MAX | 2 | 16 | 0.19 | 0.31 | < 0.05 |
| **Waste** | 15-Nov-05 | MAX | | < 10 | 0.11 | 0.31 | < 0.05 |
| **10.8 - 20.0 m** | 28-Apr-06 | INV | | | | | |
| | 07-Jun-06 | INV | | | | | |
| | 30-Aug-06 | MAX | 1.2 | 11 | 0.13 | 0.32 | < 0.03 |
| | 24-Nov-06 | MAX | 2.2 | 8 | 0.11 | 0.31 | < 0.03 |
| | 16-Apr-07 | Maxx | 2.3 | 10 | 0.16 | 0.35 | < 0.05 |
| | 21-Jun-07 | Maxx | 2.3 | 24 | 0.1 | 0.33 | < 0.05 |
| | 16-Aug-07 | Maxx | 2.3 | < 10 | 0.099 | 0.32 | < 0.03 |
| | 14-Nov-07 | Maxx | 2.2 | < 10 | 0.13 | 0.31 | < 0.05 |
| | 06-May-08 | Maxx | 2.6 | < 10 | 0.14 | 0.31 | < 0.05 |
| | 19-Jun-08 | Maxx | 2.6 | 9 | 0.13 | 0.28 | < 0.05 |
| | 15-Sep-08 | Maxx | 2.8 | 10 | 0.12 | 0.3 | < 0.05 |
| | 27-Nov-08 | Maxx | 2.9 | 10 | 0.14 | 0.31 | < 0.05 |
| | 01-May-09 | Maxx | 2 | 7 | < -0.001 | 0.35 | < 0.05 |
| | 26-Jun-09 | Maxx | 2.3 | < 10 | 0.12 | 0.34 | < 0.05 |
| | 31-Aug-09 | Maxx | 2.2 | < 10 | 0.12 | 0.33 | < 0.03 |
| | 19-Nov-09 | Maxx | 2.1 | < 10 | 0.14 | 0.33 | < 0.05 |
| | 20-May-10 | Maxx | 2.3 | 9 | 0.094 | 0.29 | < 0.05 |
| | 02-Nov-10 | Maxx | 2.1 | < 10 | 0.059 | 0.35 | 0.038 |
| **Monitor** | 11-Apr-05 | INV | | | | | |
| | 21-Jun-05 | INV | | | | | |
| **61-I** | 31-Aug-05 | INV | | | | | |
| **Outwash** | 15-Nov-05 | INV | | | | | |
| **23.8 - 25.3 m** | 28-Apr-06 | Broke | | | | | |
| | 07-Jun-06 | Broke | | | | | |
| | 30-Aug-06 | Broke | | | | | |
| | 24-Nov-06 | Broke | | | | | |
| | 24-Nov-06 | Broke | | | | | |
| | 24-Nov-06 | INV | | | | | |
| | 24-Nov-06 | INV | | | | | |
| | 16-Apr-07 | Broke | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I mg/L | Br mg/L | Cr mg/L | Ni mg/L | Zn mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** | 21-Jun-07 | INV | | | | | |
| | 16-Aug-07 | INV | | | | | |
| **61-IR** | 14-Nov-07 | INV | | | | | |
| **Outwash** | 06-May-08 | INV | | | | | |
| **24.7 -26.7 m** | 20-Jun-08 | INV | | | | | |
| | 15-Sep-08 | INV | | | | | |
| | 27-Nov-08 | INV | | | | | |
| | 01-May-09 | INSV | | | | | |
| | 26-Jun-09 | INV | | | | | |
| | 31-Aug-09 | INSV | | | | | |
| | 19-Nov-09 | INSV | | | | | |
| | 20-May-10 | INSV | | | | | |
| | 02-Nov-10 | INSV | | | | | |
| **Monitor** | 11-Apr-05 | Dry | | | | | |
| | 21-Jun-05 | Dry | | | | | |
| **63-I** | 31-Aug-05 | Dry | | | | | |
| **Outwash** | 15-Nov-05 | Dry | | | | | |
| **15.1 - 16.6 m** | 28-Apr-06 | INV | | | | | |
| | 07-Jun-06 | INV | | | | | |
| | 30-Aug-06 | INV | | | | | |
| | 24-Nov-06 | INV | | | | | |
| | 16-Apr-07 | INV | | | | | |
| | 21-Jun-07 | Maxx | < 0.1 | 4 | < 0.005 | 0.022 | 0.018 |
| | 16-Aug-07 | INV | | | | | |
| | 14-Nov-07 | INV | | | | | |
| | 06-May-08 | Maxx | 1.6 | 2 | < 0.005 | 0.017 | < 0.005 |
| | 20-Jun-08 | INV | | | | | |
| | 15-Sep-08 | Maxx | 0.5 | 2 | < 0.005 | 0.021 | < 0.005 |
| | 26-Nov-08 | Maxx | 2.1 | 2 | < 0.005 | 0.017 | 0.01 |
| | 01-May-09 | Maxx | 1.5 | 2 | < 0.005 | 0.018 | < 0.005 |
| | 26-Jun-09 | Maxx | 1.7 | 2 | < 0.005 | 0.018 | 0.006 |
| | 31-Aug-09 | Maxx | 1.6 | 1 | < 0.005 | 0.019 | < 0.005 |
| | 19-Nov-09 | Maxx | 1.3 | 2 | < 0.005 | 0.021 | < 0.005 |
| | 20-May-10 | INSV | | | | | |
| | 02-Nov-10 | INSV | | | | | |
| **Monitor** | 11-Apr-05 | Philip | 0.2 | 0.7 | < 0.005 | 0.008 | < 0.005 |
| | 21-Jun-05 | MAX | 0.4 | < 0.35 | < 0.005 | 0.01 | 0.013 |
| **65-I** | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | 0.035 | 0.009 |
| **Waste/Fill** | 15-Nov-05 | MAX | | < 1 | < 0.005 | 0.037 | 0.011 |
| **5.7 - 10.3 m** | 28-Apr-06 | Maxx | 0.4 | 2 | < 0.005 | 0.013 | 0.019 |
| | 07-Jun-06 | Maxx | 0.6 | 1 | < 0.005 | 0.012 | 0.008 |
| | 30-Aug-06 | MAX | 0.3 | < 1 | < 0.005 | 0.011 | 0.026 |
| | 24-Nov-06 | MAX | 0.4 | 1 | < 0.005 | 0.006 | < 0.005 |
| | 16-Apr-07 | Maxx | 0.4 | < 1 | < 0.005 | < 0.005 | 0.007 |
| | 21-Jun-07 | Maxx | 0.6 | 2 | < 0.005 | 0.009 | 0.019 |
| | 16-Aug-07 | Maxx | 0.9 | 2 | < 0.005 | 0.011 | < 0.005 |
| | 14-Nov-07 | Maxx | 0.5 | 2 | < 0.005 | 0.013 | < 0.005 |
| | 06-May-08 | Maxx | 0.5 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 20-Jun-08 | Maxx | 0.6 | < 1 | < 0.005 | 0.009 | 0.006 |
| | 15-Sep-08 | Maxx | 0.8 | < 1 | < 0.005 | 0.005 | < 0.005 |
| | 27-Nov-08 | Maxx | 0.6 | < 1 | < 0.005 | 0.004 | 0.015 |
| | 01-May-09 | Maxx | 0.3 | < 1 | < 0.005 | 0.004 | 0.006 |
| | 26-Jun-09 | Maxx | 0.5 | < 1 | < 0.005 | 0.008 | < 0.005 |
| | 31-Aug-09 | Maxx | 0.7 | < 1 | < 0.005 | 0.005 | 0.009 |
| | 19-Nov-09 | Maxx | 0.5 | 1 | < 0.005 | 0.006 | < 0.005 |
| | 20-May-10 | Maxx | 0.4 | < 1 | < 0.005 | 0.007 | 0.014 |
| | 02-Nov-10 | Maxx | 0.4 | < 5 | < 0.005 | 0.006 | < 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C1: Routine Leachate Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I | Br | Cr | Ni | Zn |
| | | | mg/L | mg/L | mg/L | mg/L | mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** | 11-Apr-05 | Broke | | | | | |
| | 21-Jun-05 | Broke | | | | | |
| **66-I** | 31-Aug-05 | Broke | | | | | |
| | 15-Nov-05 | Broke | | | | | |
| **Outwash** | 28-Apr-06 | Broke | | | | | |
| | 07-Jun-06 | Broke | | | | | |
| **14.3 - 19.6 m** | 30-Aug-06 | Broke | | | | | |
| | 24-Nov-06 | Broke | | | | | |
| | 16-Apr-07 | Broke | | | | | |
| **Monitor** | 21-Jun-07 | Maxx | 1.6 | 5 | < 0.005 | 0.015 | 0.005 |
| | 16-Aug-07 | INV | | | | | |
| **66-IR** | 14-Nov-07 | INV | | | | | |
| | 06-May-08 | INV | | | | | |
| **Outwash** | 20-Jun-08 | INV | | | | | |
| | 15-Sep-08 | INV | | | | | |
| **18.4 - 20.6 m** | 27-Nov-08 | INV | | | | | |
| | 01-May-09 | INSV | | | | | |
| | 26-Jun-09 | INV | | | | | |
| | 31-Aug-09 | INSV | | | | | |
| | 19-Nov-09 | Maxx | 2.6 | 5 | < 0.005 | 0.018 | 0.007 |
| | 20-May-10 | Maxx | 2.6 | 5 | < 0.005 | 0.029 | 0.01 |
| | 02-Nov-10 | Maxx | 0.2 | 6 | < 0.005 | 0.037 | 0.032 |
| **Monitor** | 11-Apr-05 | INV | | | | | |
| | 21-Jun-05 | INV | | | | | |
| **67-I** | 31-Aug-05 | INV | | | | | |
| | 15-Nov-05 | INV | | | | | |
| **Waste** | 28-Apr-06 | INV | | | | | |
| | 07-Jun-06 | INV | | | | | |
| **16.2 - 20.7 m** | 30-Aug-06 | INV | | | | | |
| | 24-Nov-06 | INV | | | | | |
| | 16-Apr-07 | Maxx | 0.9 | 3 | < 0.005 | 0.058 | 0.016 |
| | 21-Jun-07 | INV | | | | | |
| | 16-Aug-07 | Maxx | 1.4 | 4 | < 0.005 | 0.035 | 0.02 |
| | 14-Nov-07 | Maxx | 1.9 | 2 | < 0.005 | 0.028 | 0.02 |
| | 06-May-08 | Maxx | 1.7 | 3 | < 0.005 | 0.024 | 0.01 |
| | 19-Jun-08 | Maxx | 1.4 | 3 | < 0.001 | 0.033 | 0.018 |
| | 15-Sep-08 | Maxx | 2.2 | 2 | < 0.005 | 0.025 | 0.016 |
| | 27-Nov-08 | Maxx | 2.2 | 3 | < 0.005 | 0.02 | 0.02 |
| | 01-May-09 | Maxx | 1.4 | 2 | < 0.005 | 0.025 | 0.012 |
| | 26-Jun-09 | Maxx | 1.3 | 3 | < 0.005 | 0.025 | 0.016 |
| | 31-Aug-09 | Maxx | 1.8 | 1 | < 0.005 | 0.024 | 0.01 |
| | 19-Nov-09 | Maxx | 1.8 | 3 | < 0.005 | 0.027 | < 0.005 |
| | 20-May-10 | Maxx | 1.5 | 3 | < 0.005 | 0.042 | 0.019 |
| | 02-Nov-10 | Maxx | 0.1 | 3 | < 0.005 | 0.049 | 0.019 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 2-I Outwash 9.8 - 10.4 m | 11-Apr-05 | Phili | 7.38 | 724 | 288 | 349.5 | 13.6 | 0.188 | < 1 | 83.8 | 8.3 | 34 | 4.4 | 3.94 | 0.06 | 2.16 | 88.4 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.1 | 712 | 297 | 368 | 11.5 | 0.19 | < 1 | 90.5 | 9.5 | 37.8 | 5 | 4.03 | 0.054 | 2.26 | 84.7 | < 0.1 | < 0.1 |
| | 31-Aug-05 | MAX | 8.03 | 688 | 316 | 384 | 11 | 0.18 | < 1 | 84 | 8.7 | 35 | | 4.4 | 0.058 | 2.18 | 85 | 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.25 | 623 | 302 | 360 | 13 | 0.19 | < 1 | 89 | 9.4 | 39 | 4.9 | 4.7 | 0.064 | 2.09 | 83 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.1 | 736 | 317 | 390 | 14 | 0.19 | < 1 | 92 | 9.1 | 38 | 4.9 | 4.9 | 0.066 | 2.36 | 78 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.2 | 735 | 314 | 370 | 15 | 0.18 | < 1 | 87 | 9 | 38 | 4.9 | 4.3 | 0.058 | 2.16 | 93 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 7.9 | 720 | 323 | 400 | 14 | 0.18 | < 1 | 96 | 9.5 | 38 | 5.2 | 4.8 | 0.063 | 2.05 | 87 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.1 | 743 | 317 | 400 | 14 | 0.18 | < 1 | 94 | 11 | 41 | 5.1 | 5.2 | 0.066 | 2.19 | 87 | < 0.01 | < 0.1 |
| | 10-Apr-07 | Maxx | 8.1 | 757 | 311 | 410 | 14 | 0.21 | < 1 | 94 | 10 | 42 | 5.2 | 4.3 | 0.088 | 2.26 | 92 | < 0.01 | < 0.1 |
| | 18-Jun-07 | Maxx | 8.2 | 745 | 314 | 420 | 14 | 0.19 | < 1 | 97 | 10 | 42 | 5.3 | 5.3 | 0.069 | 2.26 | 91 | < 0.01 | < 0.1 |
| | 13-Aug-07 | Maxx | 8.3 | 736 | 299 | 410 | 19 | 0.19 | < 1 | 95 | 11 | 42 | 5.2 | 4.7 | 0.067 | 2.38 | 96 | < 0.01 | < 0.1 |
| | 13-Nov-07 | Maxx | 8.3 | 971 | 290 | 460 | 94 | 0.19 | < 1 | 110 | 32 | 46 | 5.8 | 5.4 | 0.076 | 2.48 | 84 | < 0.01 | < 0.1 |
| | 29-Apr-08 | Maxx | 8.2 | 1230 | 291 | 490 | 175 | 0.21 | < 1 | 110 | 64 | 49 | 6.3 | 6 | 0.081 | 2.5 | 75 | < 0.01 | < 0.1 |
| | 17-Jun-08 | Maxx | 8.1 | 1090 | 292 | 450 | 124 | 0.21 | < 1 | 110 | 50 | 46 | 6.4 | 3.2 | 0.078 | 2.3 | 77 | < 0.01 | < 0.1 |
| | 08-Sep-08 | Maxx | 8.1 | 949 | 316 | 420 | 54 | 0.19 | < 1 | 99 | 30 | 42 | 5.2 | 4.8 | 0.076 | 2.2 | 83 | < 0.01 | < 0.1 |
| | 24-Nov-08 | Maxx | 8.1 | 913 | 323 | 410 | 45 | 0.19 | < 1 | 96 | 28 | 42 | 5.5 | 4.7 | 0.075 | 2.2 | 98 | < 0.01 | < 0.1 |
| | 28-Apr-09 | Maxx | 8 | 885 | 313 | 450 | 42 | 0.2 | < 1 | 110 | 28 | 46 | 6 | 0.77 | 0.042 | 0.53 | 100 | < 0.01 | 2 |
| | 22-Jun-09 | Maxx | 8.1 | 866 | 323 | 440 | 38 | 0.2 | < 1 | 100 | 26 | 44 | 5.5 | 1.9 | 0.092 | 2.1 | 97 | < 0.01 | 0.2 |
| | 25-Aug-09 | Maxx | 7.6 | 844 | 341 | 400 | 24 | 0.17 | < 1 | 95 | 17 | 40 | 4.9 | 3.2 | 0.063 | 1.9 | 107 | < 0.01 | 0.2 |
| | 16-Nov-09 | Maxx | 7.7 | 855 | 334 | 450 | 17 | 0.17 | < 1 | 110 | 16 | 46 | 5.4 | 2.4 | 0.076 | 2.3 | 106 | < 0.01 | 0.2 |
| | 18-May-10 | Maxx | 7.9 | 833 | 329 | 450 | 17 | 0.18 | < 1 | 110 | 15 | 46 | 5.3 | 2.9 | 0.047 | 1.1 | 111 | 0.01 | 0.7 |
| | 21-Oct-10 | Maxx | 7.75 | 840 | 350 | 450 | 12 | 0.17 | < 1 | 110 | 11 | 44 | 5 | 5.5 | 0.072 | 2.1 | 102 | < 0.01 | < 0.1 |
| **Monitor** 2-II Outwash 0.2 - 4.6 m | 11-Apr-05 | Phili | 6.94 | 943 | 474 | 513.7 | 8.6 | 0.111 | < 1 | 167 | 8.7 | 23.3 | 1.4 | 0.32 | 0.083 | 0.06 | 56.1 | < 0.2 | 0.9 |
| | 31-Aug-05 | MAX | 7.82 | 922 | 520 | 572 | 11 | 0.13 | < 1 | 160 | 9.4 | 24 | | 1.1 | 0.22 | 0.47 | 58 | < 0.01 | 0.7 |
| | 28-Apr-06 | Maxx | 8.2 | 653 | 346 | 350 | 5 | 0.066 | < 1 | 120 | 11 | 16 | 1.3 | < 0.05 | 0.026 | 0.11 | 21 | 0.02 | 2.5 |
| | 30-Aug-06 | N/A | | | | | | | | | | | | | | | | | |
| | 10-Apr-07 | Maxx | 8 | 777 | 387 | 460 | 7 | 0.068 | < 1 | 150 | 7.6 | 20 | 0.9 | 0.67 | 0.028 | 0.17 | 32 | < 0.01 | 2.3 |
| | 13-Aug-07 | Maxx | 8.3 | 784 | 413 | 440 | 9 | 0.084 | < 1 | 140 | 7.8 | 21 | 1.6 | 0.37 | 0.049 | 0.3 | 42 | < 0.01 | 0.4 |
| | 29-Apr-08 | Maxx | 8.2 | 777 | 409 | 390 | 4 | 0.067 | < 1 | 120 | 27 | 19 | 1.7 | < 0.1 | 0.025 | 0.09 | 21 | 0.03 | 1.1 |
| | 08-Sep-08 | Maxx | 8.1 | 826 | 433 | 450 | 3 | 0.081 | < 1 | 150 | 7.8 | 20 | 1.8 | 0.28 | 0.052 | < 0.05 | 25 | < 0.01 | 0.6 |
| | 28-Apr-09 | Maxx | 8.3 | 684 | 344 | 360 | 6 | 0.054 | < 1 | 120 | 8.7 | 16 | 1.4 | < 0.1 | < 0.002 | < 0.05 | 27 | < 0.01 | 2.7 |
| | 25-Aug-09 | Maxx | 7.5 | 731 | 373 | 370 | 6 | 0.092 | < 1 | 130 | 5.1 | 14 | 1.1 | < 0.1 | 0.02 | < 0.05 | 35 | < 0.01 | 1.6 |
| | 21-Oct-10 | Maxx | 7.65 | 829 | 399 | 470 | 5 | 0.073 | < 1 | 150 | 5.5 | 20 | 2.6 | < 0.1 | 0.048 | 0.11 | 45 | < 0.01 | 1.6 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | | 10 h |
| **Monitor** 4-IR Bedrock 19.4 - 20.9 m | 11-Apr-05 | Phili | 8.02 | 620 | 247 | 308.3 | 31.6 | 0.033 | < 1 | 66.4 | 7.7 | 34.6 | 0.8 | 0.48 | 0.01 | 0.16 | 48.9 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.12 | 608 | 248 | 307 | 27.7 | 0.07 | < 1 | 121 | 14.9 | 63.7 | 1.7 | 0.78 | 0.016 | 0.21 | 47.1 | < 0.1 | < 0.1 |
| | 31-Aug-05 | MAX | 8.15 | 590 | 265 | 336 | 25 | 0.028 | < 1 | 74 | 8.9 | 40 | | 0.48 | 0.01 | 0.18 | 38 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.21 | 519 | 248 | 320 | 32 | 0.028 | < 1 | 65 | 9.2 | 41 | 0.93 | 0.49 | 0.01 | 0.12 | 45 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 636 | 267 | 350 | 31 | 0.026 | < 1 | 73 | 9 | 41 | 0.98 | 0.55 | 0.01 | 0.19 | 38 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.2 | 634 | 265 | 340 | 32 | 0.03 | < 1 | 71 | 9.8 | 40 | 0.95 | 0.5 | 0.009 | 0.22 | 52 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8 | 634 | 263 | 330 | 32 | 0.021 | < 1 | 70 | 9 | 37 | 0.89 | 0.49 | 0.009 | 0.22 | 50 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.2 | 650 | 267 | 350 | 32 | 0.03 | < 1 | 72 | 9.4 | 42 | 1 | 0.57 | 0.01 | 0.38 | 50 | < 0.01 | < 0.1 |
| | 10-Apr-07 | Maxx | 8.2 | 665 | 255 | 360 | 34 | 0.031 | < 1 | 75 | 11 | 43 | 0.98 | 0.52 | 0.01 | 0.23 | 51 | < 0.01 | < 0.1 |
| | 19-Jun-07 | Maxx | 8.3 | 643 | 255 | 330 | 36 | 0.026 | < 1 | 70 | 9.2 | 37 | 1 | 0.47 | 0.009 | 0.2 | 52 | < 0.01 | < 0.1 |
| | 16-Aug-07 | Maxx | 8.4 | 641 | 250 | 330 | 38 | 0.035 | < 1 | 69 | 9.7 | 39 | 0.88 | 0.48 | 0.009 | 0.2 | 58 | < 0.01 | < 0.1 |
| | 15-Nov-07 | Maxx | 8.2 | 644 | 245 | 310 | 36 | 0.032 | < 1 | 65 | 9.1 | 35 | 0.91 | 0.5 | 0.01 | 0.21 | 49 | < 0.01 | < 0.1 |
| | 01-May-08 | Maxx | 8.2 | 656 | 245 | 330 | 32 | 0.031 | < 1 | 69 | 10 | 39 | 0.99 | 0.54 | 0.01 | 0.18 | 47 | < 0.01 | < 0.1 |
| | 18-Jun-08 | Maxx | 8.2 | 652 | 240 | 310 | 33 | 0.028 | < 1 | 66 | 10 | 36 | 1.4 | 0.47 | 0.009 | 0.16 | 48 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.3 | 658 | 245 | 330 | 31 | 0.026 | < 1 | 69 | 11 | 38 | 1.4 | 0.52 | 0.01 | 0.13 | 47 | < 0.01 | < 0.1 |
| | 25-Nov-08 | Maxx | 8.2 | 663 | 244 | 340 | 34 | 0.037 | < 1 | 68 | 12 | 41 | 1.4 | 0.45 | 0.009 | 0.19 | 48 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.6 | 663 | 259 | 360 | 41 | 0.035 | < 1 | 73 | 12 | 43 | 1 | 0.55 | 0.011 | 0.15 | 54 | < 0.01 | < 0.1 |
| | 24-Jun-09 | Maxx | 8 | 670 | 244 | 340 | 44 | 0.026 | < 1 | 69 | 11 | 41 | 0.9 | 0.53 | 0.01 | 0.2 | 57 | < 0.01 | < 0.1 |
| | 26-Aug-09 | Maxx | 8 | 665 | 249 | 330 | 39 | 0.031 | < 1 | 68 | 10 | 38 | 0.96 | 0.47 | 0.01 | 0.18 | 54 | < 0.01 | < 0.1 |
| | 16-Nov-09 | Maxx | 8 | 680 | 243 | 350 | 42 | 0.027 | < 1 | 72 | 11 | 41 | 0.97 | 0.4 | 0.01 | 0.16 | 53 | < 0.01 | < 0.1 |
| | 18-May-10 | Maxx | 8 | 680 | 242 | 320 | 49 | 0.033 | < 1 | 68 | 10 | 37 | 1 | 0.5 | 0.018 | 0.28 | 60 | < 0.01 | < 0.1 |
| | 27-Jul-10 | Maxx | 8 | 680 | 244 | 340 | 42 | 0.03 | < 1 | 72 | 11 | 40 | 0.94 | 0.26 | 0.011 | 0.06 | 60 | < 0.01 | < 0.1 |
| | 26-Oct-10 | Maxx | 8.13 | 658 | 246 | 340 | 33 | 0.022 | < 1 | 71 | 9.7 | 38 | 0.91 | < 0.1 | 0.002 | < 0.05 | 55 | < 0.01 | < 0.1 |
| | 06-Dec-10 | Maxx | 7.97 | 677 | 240 | 340 | 42 | 0.027 | < 1 | 70 | 11 | 40 | 0.92 | 0.54 | 0.01 | 0.14 | 55 | < 0.01 | < 0.1 |
| **Monitor** 4-II Lower Till 13.6 -14.0 m | 11-Apr-05 | Phili | 8.01 | 757 | 244 | 332 | 75.4 | 0.025 | < 1 | 72 | 18.2 | 36.9 | 0.9 | 0.8 | 0.024 | 0.19 | 55.6 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.1 | 666 | 268 | 352 | 47 | 0.022 | < 1 | 76 | 16 | 41 | | 0.65 | 0.023 | 0.18 | 53 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.2 | 854 | 269 | 400 | 112 | 0.021 | < 1 | 85 | 35 | 46 | 1.2 | 0.95 | 0.025 | 0.35 | 41 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.1 | 909 | 268 | 400 | 112 | 0.018 | < 1 | 86 | 35 | 45 | 1.1 | 0.95 | 0.023 | 0.26 | 57 | < 0.01 | < 0.1 |
| | 10-Apr-07 | Maxx | 8.2 | 898 | 257 | 420 | 103 | 0.029 | < 1 | 87 | 32 | 48 | 1.2 | 0.76 | 0.027 | 0.32 | 58 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 4-IIR Lower Till 11.9 - 13.7 m | 19-Jun-07 | Maxx | 8.2 | 778 | 274 | 370 | 47 | 0.023 | < 1 | 80 | 23 | 40 | 1.5 | 0.92 | 0.022 | 0.31 | 77 | < 0.01 | < 0.1 |
| | 16-Aug-07 | Maxx | 8.4 | 755 | 267 | 370 | 57 | 0.032 | < 1 | 77 | 19 | 44 | 1.6 | 0.93 | 0.017 | 0.29 | 82 | < 0.01 | < 0.1 |
| | 15-Nov-07 | Maxx | 8 | 755 | 264 | 410 | 48 | 0.026 | < 1 | 85 | 18 | 47 | 1.6 | 1.2 | 0.019 | 0.34 | 68 | < 0.01 | < 0.1 |
| | 01-May-08 | Maxx | 8.3 | 809 | 263 | 400 | 59 | 0.021 | < 1 | 83 | 18 | 48 | 1.9 | 1.1 | 0.019 | 0.26 | 63 | < 0.01 | < 0.1 |
| | 18-Jun-08 | Maxx | 8.3 | 777 | 259 | 360 | 56 | 0.027 | < 1 | 76 | 14 | 42 | 1.8 | 0.91 | 0.019 | 0.21 | 64 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.2 | 808 | 262 | 400 | 60 | 0.021 | < 1 | 82 | 16 | 46 | 1.7 | 0.99 | 0.021 | 0.19 | 64 | < 0.01 | < 0.1 |
| | 25-Nov-08 | N/A | | | | | | | | | | | | | | | | | |
| | 30-Apr-09 | Maxx | 7.6 | 833 | 271 | 420 | 80 | 0.03 | < 1 | 86 | 20 | 50 | 1.5 | 1.1 | 0.023 | 0.22 | 68 | < 0.01 | < 0.1 |
| | 24-Jun-09 | Maxx | 7.9 | 838 | 260 | 410 | 77 | 0.021 | < 1 | 85 | 15 | 49 | 1.5 | 0.87 | 0.025 | 0.23 | 77 | < 0.01 | < 0.1 |
| | 26-Aug-09 | Maxx | 7.8 | 915 | 271 | 570 | 98 | 0.025 | < 1 | 140 | 18 | 58 | 1.9 | 2.9 | 0.17 | 0.24 | 74 | < 0.01 | < 0.1 |
| | 17-May-10 | Maxx | 8.1 | 886 | 255 | 470 | 92 | 0.024 | < 1 | 97 | 18 | 55 | 1.6 | 1.1 | 0.027 | 0.25 | 84 | < 0.01 | < 0.1 |
| | 26-Oct-10 | Maxx | 8.09 | 893 | 254 | 440 | 88 | 0.026 | < 1 | 94 | 16 | 50 | 1.5 | < 0.1 | < 0.002 | < 0.05 | 74 | < 0.01 | 0.2 |
| **Monitor** 4-IIIR Upper Till 1.1 - 4.1 m | 11-Apr-05 | Phili | 7.52 | 7463 | 354 | 992.3 | 2250 | 0.133 | < 1 | 283 | 1150 | 69.2 | 1.8 | < 0.3 | < 0.05 | < 0.03 | 85.2 | < 2 | 6.6 |
| | 21-Jun-05 | MAX | 7.9 | 5900 | 372 | 608 | 1650 | 0.05 | < 1 | 184 | 1090 | 46 | 1.8 | < 0.05 | < 0.002 | < 0.05 | 79 | < 10 | 8.6 |
| | 31-Aug-05 | MAX | 7.95 | 5030 | 402 | 529 | 1470 | 0.025 | < 1 | 150 | 970 | 36 | | < 0.001 | 0.004 | 0.06 | 63 | < 0.01 | 7.9 |
| | 15-Nov-05 | MAX | 7.95 | 4610 | 330 | 610 | 1520 | < 0.1 | < 1 | 220 | 900 | 57 | < 2 | < 0.5 | < 0.02 | < 0.05 | 56 | < 0.01 | 2.8 |
| | 28-Apr-06 | Maxx | 8 | 6030 | 333 | 890 | 1590 | 0.056 | < 1 | 250 | 1100 | 65 | 1.8 | < 0.3 | < 0.01 | 0.07 | 61 | < 0.01 | 6.5 |
| | 07-Jun-06 | Maxx | 8.1 | 6070 | 373 | 810 | 1770 | < 0.05 | < 1 | 230 | 1100 | 59 | 1.9 | < 0.3 | < 0.01 | 0.07 | 73 | < 0.01 | 8.5 |
| | 30-Aug-06 | MAX | 7.9 | 5870 | 385 | 680 | 1680 | 0.025 | < 1 | 190 | 1000 | 49 | 2 | < 0.05 | 0.003 | 0.06 | 67 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8 | 5540 | 390 | 760 | 1610 | 0.066 | < 1 | 210 | 890 | 57 | 1.7 | < 0.05 | 0.037 | 0.11 | 59 | < 0.01 | 5.3 |
| | 10-Apr-07 | Maxx | 8.1 | 5440 | 371 | 760 | 1540 | 0.092 | < 1 | 210 | 970 | 57 | 1.6 | < 0.05 | < 0.002 | 0.13 | 64 | < 0.01 | 5.9 |
| | 19-Jun-07 | Maxx | 8 | 4480 | 351 | 460 | 1270 | 0.018 | < 1 | 130 | 920 | 32 | 1.2 | < 0.05 | < 0.002 | 0.07 | 59 | < 0.01 | 8.6 |
| | 16-Aug-07 | Maxx | 8.1 | 4280 | 387 | 460 | 1180 | 0.024 | < 1 | 130 | 870 | 33 | 1.8 | < 0.05 | < 0.002 | < 0.05 | 63 | < 0.01 | 8.5 |
| | 15-Nov-07 | Maxx | 8.3 | 3980 | 408 | 380 | 995 | 0.015 | < 1 | 110 | 760 | 26 | 1.4 | < 0.1 | < 0.002 | < 0.05 | 57 | < 0.01 | 8.9 |
| | 01-May-08 | Maxx | 8.2 | 4390 | 355 | 510 | 1490 | 0.021 | < 1 | 140 | 780 | 37 | 1.3 | < 0.1 | < 0.002 | < 0.05 | 52 | < 0.01 | 7.8 |
| | 18-Jun-08 | Maxx | 8.2 | 4680 | 332 | 540 | 1200 | 0.016 | < 1 | 150 | 700 | 40 | 1.7 | < 0.1 | < 0.002 | < 0.05 | 50 | 0.01 | 7.7 |
| | 09-Sep-08 | Maxx | 8.1 | 5610 | 326 | 770 | 1540 | 0.019 | < 1 | 210 | 950 | 56 | 2 | < 0.1 | 0.005 | < 0.05 | 54 | < 0.01 | 6.6 |
| | 25-Nov-08 | Maxx | 8 | 5940 | 343 | 720 | 2270 | 0.038 | < 1 | 200 | 1100 | 53 | 2.2 | < 0.1 | 0.002 | < 0.5 | 60 | < 0.01 | 5.6 |
| | 30-Apr-09 | Maxx | 7.7 | 5790 | 383 | 720 | 1670 | 0.058 | 5 | 200 | 970 | 53 | 1.8 | < 0.1 | < 0.002 | < 0.05 | 66 | < 0.01 | 4.7 |
| | 24-Jun-09 | Maxx | 7.7 | 5000 | 386 | 530 | 1440 | 0.018 | < 1 | 140 | 820 | 41 | 1.4 | < 0.1 | < 0.002 | < 0.05 | 78 | < 0.01 | 5.7 |
| | 26-Aug-09 | Maxx | 7.8 | 4020 | 414 | 360 | 1050 | 0.086 | < 1 | 100 | 700 | 25 | 1.4 | < 0.1 | 0.009 | < 0.05 | 61 | < 0.01 | 5.5 |
| | 16-Nov-09 | Maxx | 7.8 | 4290 | 401 | 410 | 1070 | 0.016 | < 1 | 110 | 790 | 31 | 1.4 | < 0.1 | < 0.002 | < 0.05 | 60 | < 0.01 | 5.3 |
| | 17-May-10 | Maxx | 8.1 | 4940 | 387 | 500 | 1340 | 0.026 | < 1 | 140 | 910 | 38 | 1.4 | < 0.1 | < 0.002 | < 0.05 | 66 | < 0.01 | 5.1 |
| | 26-Oct-10 | Maxx | 7.94 | 4170 | 374 | 360 | 1060 | 0.019 | < 1 | 100 | 750 | 27 | 1.4 | < 0.1 | 0.002 | < 0.05 | 56 | < 0.01 | 6 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 5-II Upper Till 1.7 - 7.8 m | 11-Apr-05 | Phili | 7.68 | 2267 | 365 | 308.8 | 539 | 0.012 | < 1 | 82.2 | 339 | 25.1 | 0.6 | < 0.03 | < 0.005 | < 0.03 | 25.4 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.06 | 2170 | 356 | 322 | 499 | 0.03 | 2 | 83.8 | 344 | 26.5 | 0.7 | < 0.05 | < 0.002 | 0.15 | 22.4 | < 1 | 0.1 |
| | 31-Aug-05 | MAX | 8.09 | 2380 | 392 | 332 | 566 | 0.013 | < 1 | 82 | 380 | 25 | | < 0.05 | < 0.002 | < 0.05 | 29 | < 0.01 | 0.1 |
| | 15-Nov-05 | MAX | 8.11 | 2370 | 350 | 320 | 601 | 0.013 | < 1 | 96 | 480 | 33 | 0.96 | < 0.05 | < 0.002 | < 0.05 | 26 | < 0.01 | 0.3 |
| | 28-Apr-06 | Maxx | 8.2 | 2130 | 387 | 330 | 437 | 0.012 | < 1 | 87 | 360 | 28 | 0.74 | < 0.05 | < 0.002 | 0.06 | 25 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.2 | 2100 | 381 | 310 | 439 | 0.012 | < 1 | 81 | 350 | 27 | 0.69 | < 0.05 | < 0.002 | < 0.05 | 26 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.2 | 2100 | 387 | 340 | 485 | 0.012 | < 1 | 90 | 330 | 27 | 0.93 | < 0.05 | 0.005 | 0.16 | 23 | 0.07 | 0.1 |
| | 24-Nov-06 | MAX | 8.3 | 2300 | 383 | 340 | 535 | 0.012 | < 1 | 89 | 360 | 28 | 0.94 | < 0.05 | < 0.002 | 0.09 | 22 | < 0.01 | < 0.1 |
| | 10-Apr-07 | Maxx | 8.2 | 1940 | 375 | 310 | 378 | 0.011 | < 1 | 82 | 320 | 26 | 0.72 | < 0.05 | < 0.002 | 0.1 | 21 | < 0.01 | < 0.1 |
| | 18-Jun-07 | Maxx | 8.3 | 1770 | 353 | 290 | 368 | 0.011 | < 1 | 75 | 260 | 24 | 0.73 | < 0.05 | < 0.002 | 0.07 | 21 | < 0.01 | 0.1 |
| | 13-Aug-07 | Maxx | 8.3 | 2010 | 377 | 270 | 473 | 0.016 | < 1 | 73 | 350 | 21 | 0.73 | < 0.05 | < 0.002 | 0.11 | 27 | < 0.01 | 0.1 |
| | 13-Nov-07 | Maxx | 8 | 1970 | 410 | 260 | 380 | 0.018 | < 1 | 69 | 340 | 22 | 0.87 | < 0.1 | 0.002 | < 0.05 | 26 | < 0.01 | 0.1 |
| | 29-Apr-08 | Maxx | 8.3 | 1780 | 393 | 230 | 365 | < 0.01 | < 1 | 59 | 320 | 19 | 0.7 | < 0.1 | < 0.002 | < 0.05 | 22 | < 0.01 | 0.1 |
| | 19-Jun-08 | Maxx | 8.4 | 1500 | 402 | 200 | 238 | 0.018 | < 1 | 52 | 250 | 17 | 0.59 | < 0.1 | < 0.002 | < 0.05 | 19 | < 0.01 | 0.1 |
| | 08-Sep-08 | Maxx | 8.3 | 1370 | 398 | 240 | 198 | 0.015 | < 1 | 62 | 210 | 20 | 0.66 | < 0.1 | 0.007 | < 0.05 | 14 | < 0.01 | < 0.1 |
| | 25-Nov-08 | Maxx | 8.3 | 1380 | 391 | 260 | 221 | 0.014 | < 1 | 66 | 220 | 23 | 0.84 | < 0.1 | < 0.002 | < 0.5 | 14 | < 0.01 | < 0.1 |
| | 01-May-09 | Maxx | 8 | 1530 | 413 | 210 | 232 | 0.012 | < 1 | 55 | 280 | 18 | 0.55 | < 0.1 | < 0.002 | < 0.05 | 22 | < 0.01 | 0.1 |
| | 22-Jun-09 | Maxx | 8.3 | 1510 | 385 | 240 | 255 | 0.014 | < 1 | 64 | 270 | 20 | 0.72 | < 0.1 | < 0.002 | < 0.05 | 18 | < 0.01 | 0.2 |
| | 26-Aug-09 | Maxx | 7.8 | 1890 | 371 | 260 | 371 | 0.013 | < 1 | 69 | 300 | 21 | 0.77 | < 0.1 | < 0.002 | < 0.05 | 18 | < 0.01 | 1 |
| | 16-Nov-09 | Maxx | 7.9 | 1950 | 345 | 320 | 376 | 0.012 | < 1 | 84 | 330 | 26 | 0.86 | < 0.1 | 0.016 | 0.1 | 18 | < 0.01 | 2 |
| | 17-May-10 | Maxx | 8.1 | 1770 | 345 | 430 | 348 | < 0.01 | < 1 | 110 | 210 | 39 | 0.66 | < 0.1 | < 0.002 | 0.18 | 20 | < 0.01 | 0.6 |
| | 26-Oct-10 | Maxx | 8.04 | 1920 | 416 | 370 | 345 | 0.02 | < 1 | 97 | 290 | 30 | 0.84 | < 0.1 | < 0.002 | < 0.05 | 20 | < 0.01 | 0.7 |
| **Monitor** 9A-I Bedrock 25.1 - 25.9 m | 11-Apr-05 | Phili | 8.24 | 367 | 168 | 97.2 | 13.3 | 0.123 | 1 | 21.2 | 37.1 | 10.7 | 0.8 | 0.23 | 0.01 | 0.49 | 3.7 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.19 | 347 | 184 | 109 | 10 | 0.11 | 1 | 24 | 43 | 13 | | 0.28 | 0.012 | 0.42 | 11 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 353 | 185 | 100 | 12 | 0.11 | < 1 | 22 | 38 | 12 | 0.83 | 0.24 | 0.012 | 0.49 | 3 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.3 | 351 | 186 | 120 | 13 | 0.13 | < 1 | 25 | 44 | 13 | 0.86 | 0.31 | 0.013 | 0.48 | 4 | < 0.01 | < 0.1 |
| | 11-Apr-07 | Maxx | 8.3 | 370 | 179 | 120 | 13 | 0.13 | < 1 | 24 | 46 | 14 | 1 | 0.29 | 0.014 | 0.54 | 4 | < 0.01 | < 0.1 |
| | 15-Aug-07 | Maxx | 8.4 | 364 | 178 | 91 | 12 | 0.081 | < 1 | 19 | 36 | 11 | 0.75 | 0.22 | 0.011 | 0.48 | 5 | < 0.01 | < 0.1 |
| | 30-Apr-08 | Maxx | 8.4 | 356 | 171 | 100 | 9 | 0.13 | < 1 | 21 | 41 | 12 | 0.87 | 0.25 | 0.012 | 0.43 | 4 | < 0.01 | < 0.1 |
| | 11-Sep-08 | Maxx | 8.3 | 356 | 170 | 110 | 8 | 0.12 | < 1 | 22 | 42 | 13 | 0.91 | 0.25 | 0.012 | 0.34 | 4 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.8 | 355 | 183 | 110 | 12 | 0.13 | < 1 | 22 | 43 | 13 | 0.83 | 0.22 | 0.01 | 0.36 | 5 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 8.2 | 355 | 167 | 98 | 11 | 0.13 | < 1 | 22 | 39 | 11 | 0.64 | 0.36 | 0.016 | 0.35 | 6 | < 0.01 | < 0.1 |
| | 27-Oct-10 | Maxx | 8.3 | 329 | 153 | 80 | 10 | 0.11 | < 1 | 15 | 44 | 10 | 0.99 | 0.13 | 0.02 | 0.18 | 2 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 9-I Outwash 5.5 - 6.8 m | 11-Apr-05 | Phili | 7.73 | 565 | 224 | 280.6 | 7 | 0.022 | < 1 | 71.3 | 3.7 | 24.9 | 0.8 | < 0.03 | 0.013 | < 0.03 | 37.4 | < 0.2 | 7.8 |
| | 31-Aug-05 | MAX | 8.03 | 541 | 249 | 318 | 6 | 0.026 | < 1 | 82 | 4.2 | 29 | | < 0.05 | 0.087 | < 0.05 | 46 | 0.04 | 5.9 |
| | 28-Apr-06 | Maxx | 8.2 | 610 | 277 | 350 | 10 | 0.038 | < 1 | 90 | 6 | 31 | 1 | < 0.05 | 0.057 | 0.08 | 60 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8 | 639 | 287 | 380 | 17 | 0.07 | < 1 | 92 | 12 | 37 | 1.1 | < 0.05 | 0.097 | < 0.05 | 69 | < 0.01 | < 0.1 |
| | 11-Apr-07 | Maxx | 8.1 | 703 | 289 | 390 | 16 | 0.12 | < 1 | 97 | 14 | 35 | 1.2 | < 0.05 | 0.078 | 0.08 | 76 | < 0.01 | < 0.1 |
| | 15-Aug-07 | Maxx | 8.4 | 720 | 280 | 390 | 25 | 0.15 | < 1 | 97 | 19 | 36 | 1.3 | < 0.05 | 0.11 | 0.12 | 99 | < 0.01 | < 0.1 |
| | 30-Apr-08 | Maxx | 8.2 | 834 | 289 | 410 | 35 | 0.25 | < 1 | 100 | 26 | 38 | 1.6 | < 0.1 | 0.13 | < 0.05 | 97 | < 0.01 | < 0.1 |
| | 11-Sep-08 | Maxx | 8.2 | 860 | 294 | 390 | 47 | 0.28 | < 1 | 99 | 29 | 35 | 1.6 | < 0.1 | 0.23 | < 0.05 | 92 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.5 | 826 | 318 | 410 | 31 | 0.29 | < 1 | 110 | 27 | 35 | 2.2 | < 0.1 | 0.13 | < 0.05 | 103 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 7.8 | 883 | 301 | 410 | 38 | 0.29 | < 1 | 110 | 26 | 34 | 1.5 | 2 | 0.55 | 0.25 | 126 | < 0.01 | < 0.1 |
| | 27-Oct-10 | Maxx | 7.78 | 1080 | 308 | 490 | 74 | 0.33 | 4 | 120 | 37 | 46 | 2 | 0.36 | 0.26 | 0.14 | 168 | < 0.01 | < 0.1 |
| **Monitor** 10-II Outwash 3.0 - 3.6 m | 11-Apr-05 | Phili | 7.49 | 2777 | 297 | 773.4 | 768 | 0.03 | < 1 | 189 | 214 | 72.9 | 1.9 | 1.28 | 0.369 | 1.81 | 19.2 | < 0.2 | 0.4 |
| | 21-Jun-05 | MAX | 7.95 | 2650 | 304 | 792 | 728 | 0.02 | < 1 | 202 | 226 | 78.8 | 2 | 3.81 | 0.209 | 2.26 | 17.6 | < 5 | 0.2 |
| | 31-Aug-05 | INV | | | | | | | | | | | | | | | | | |
| | 15-Nov-05 | INV | | | | | | | | | | | | | | | | | |
| | 28-Apr-06 | INV | | | | | | | | | | | | | | | | | |
| | 07-Jun-06 | INV | | | | | | | | | | | | | | | | | |
| | 30-Aug-06 | INV | | | | | | | | | | | | | | | | | |
| | 24-Nov-06 | MAX | 8.1 | 3230 | 326 | 960 | 860 | 0.033 | < 1 | 240 | 300 | 90 | 2.8 | 0.97 | 0.32 | 2.38 | 22 | < 0.01 | 0.3 |
| | 11-Apr-07 | Maxx | 8 | 3250 | 302 | 990 | 891 | 0.03 | < 1 | 240 | 340 | 94 | 2.3 | 0.58 | 0.36 | 1.47 | 27 | < 0.01 | 0.4 |
| | 19-Jun-07 | Maxx | 8 | 2970 | 303 | 910 | 819 | 0.027 | 1 | 230 | 280 | 80 | 2 | 5.9 | 0.26 | 2.39 | 24 | 0.01 | < 0.1 |
| | 13-Aug-07 | Maxx | 8.1 | 2970 | 296 | 950 | 856 | 0.034 | < 1 | 230 | 300 | 93 | 2.4 | 1.5 | 0.24 | 2.61 | 26 | 0.02 | < 0.1 |
| | 14-Nov-07 | Maxx | 8 | 3150 | 306 | 880 | 841 | 0.034 | < 1 | 220 | 250 | 80 | 2.1 | 6 | 0.24 | 3.06 | 21 | < 0.01 | < 0.1 |
| | 01-May-08 | Maxx | 8 | 3150 | 287 | 950 | 1030 | 0.024 | < 1 | 230 | 300 | 93 | 2.6 | 0.25 | 0.35 | 1.2 | 23 | 0.01 | 0.5 |
| | 17-Jun-08 | Maxx | 8.3 | 1230 | 251 | 530 | 232 | 0.04 | < 1 | 110 | 27 | 63 | 2.1 | < 0.1 | < 0.002 | < 0.05 | 21 | < 0.01 | 0.2 |
| | 09-Sep-08 | Maxx | 8.1 | 3240 | 304 | 930 | 834 | 0.033 | < 1 | 230 | 280 | 88 | 3.4 | 18 | 0.27 | 2.8 | 11 | < 0.01 | < 0.1 |
| | 25-Nov-08 | Maxx | 8.1 | 3110 | 300 | 940 | 1030 | 0.036 | < 1 | 220 | 290 | 92 | 2.9 | 2.1 | 0.27 | 2.8 | 14 | 0.01 | 0.2 |
| | 28-Apr-09 | Maxx | 7.8 | 3310 | 292 | 990 | 924 | 0.03 | < 1 | 230 | 340 | 98 | 2.4 | 1.3 | 0.39 | 1.7 | 27 | < 0.01 | 0.3 |
| | 26-Jun-09 | Maxx | 7.9 | 3320 | 290 | 990 | 1010 | 0.028 | < 1 | 240 | 320 | 96 | 2.3 | 1 | 0.32 | 1.9 | 30 | < 0.01 | < 0.1 |
| | 28-Aug-09 | Maxx | 7.6 | 3330 | 313 | 950 | 890 | 0.035 | 5 | 230 | 300 | 89 | 4.5 | 23 | 0.27 | 7.4 | 21 | < 0.01 | < 0.1 |
| | 18-Nov-09 | Maxx | 7.8 | 3350 | 305 | 920 | 893 | 0.032 | < 1 | 220 | 300 | 87 | 3.1 | 2.5 | 0.23 | 3.8 | 16 | < 0.01 | < 0.1 |
| | 19-May-10 | Maxx | 7.8 | 3360 | 286 | 880 | 918 | 0.029 | < 1 | 210 | 270 | 85 | 2.1 | 3.1 | 0.36 | 1.8 | 28 | 0.01 | < 0.1 |
| | 27-Oct-10 | Maxx | 7.53 | 3470 | 309 | 910 | 957 | 0.027 | < 1 | 230 | 320 | 84 | 2.5 | 8.6 | 0.27 | 3.3 | 19 | < 0.01 | 0.2 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**10-III**
**Outwash/Peat**
**0.3 - 1.5 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.49 | 3105 | 358 | 398 | 744 | 0.036 | < 1 | 118 | 459 | 25 | 1.7 | 2.62 | 0.409 | 1 | 15 | < 0.2 | 0.8 |
| 21-Jun-05 | MAX | 7.98 | 4530 | 491 | 515 | 1370 | < 0.1 | < 1 | 187 | 730 | 25 | 2 | 3.6 | 0.97 | 1.12 | 4.7 | < 2.5 | < 0.1 |
| 31-Aug-05 | MAX | 7.98 | 4130 | 434 | 348 | 1160 | 0.059 | 7 | 140 | 830 | 22 | | 4 | 0.4 | 2.76 | 30 | 0.01 | 0.3 |
| 15-Nov-05 | MAX | 7.87 | 4560 | 371 | 520 | 1500 | 0.064 | < 1 | 170 | 990 | 29 | 1.1 | 1.5 | 0.16 | 0.69 | 75 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.1 | 3320 | 369 | 470 | 827 | 0.039 | < 1 | 150 | 810 | 25 | 1.6 | 2.9 | 0.49 | 0.81 | 23 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8 | 3470 | 435 | 420 | 883 | 0.04 | < 1 | 130 | 720 | 23 | 1.8 | 2.9 | 0.47 | 0.71 | 15 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 7.9 | 4530 | 563 | 570 | 1260 | 0.064 | < 1 | 180 | 1100 | 33 | 2.5 | 5.4 | 0.56 | 1.74 | 15 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8.2 | 3270 | 507 | 360 | 782 | 0.04 | < 1 | 110 | 540 | 19 | 1.4 | 3.1 | 0.59 | 0.97 | 10 | < 0.01 | < 0.1 |
| 11-Apr-07 | Maxx | 8.1 | 3270 | 454 | 440 | 808 | 0.03 | 2 | 140 | 690 | 24 | 1.7 | 5.6 | 0.5 | 1.8 | 8 | < 0.1 | < 1 |
| 19-Jun-07 | Maxx | 8 | 3360 | 464 | 490 | 850 | 0.033 | < 1 | 150 | 700 | 27 | 2 | 6.1 | 0.66 | 1.38 | 7 | < 0.01 | < 0.1 |
| 13-Aug-07 | Dry | | | | | | | | | | | | | | | | | |
| 14-Nov-07 | INV | | | | | | | | | | | | | | | | | |
| 01-May-08 | Maxx | 8.1 | 4620 | 286 | 560 | 1720 | 0.048 | < 1 | 180 | 870 | 29 | 2.5 | 2.5 | 0.51 | 0.94 | 53 | < 0.01 | < 0.1 |
| 17-Jun-08 | Maxx | 8.2 | 4420 | 346 | 540 | 1200 | 0.048 | < 1 | 170 | 750 | 29 | 1.9 | 2.5 | 0.72 | 0.44 | 24 | < 0.01 | < 0.1 |
| 09-Sep-08 | Maxx | 8.1 | 4630 | 493 | 570 | 1180 | < 0.1 | 1 | 180 | 840 | 30 | 2.8 | 5.6 | 0.97 | 1 | 13 | < 0.01 | < 0.1 |
| 25-Nov-08 | INV | | | | | | | | | | | | | | | | | |
| 28-Apr-09 | Maxx | 7.8 | 5540 | 327 | 780 | 1630 | 0.02 | < 1 | 240 | 1100 | 42 | 2.8 | 7.3 | 1.2 | 0.72 | 16 | < 0.01 | < 0.1 |
| 26-Jun-09 | Maxx | 7.7 | 5220 | 412 | 750 | 1600 | 0.026 | 5 | 230 | 840 | 39 | 2.7 | 11 | 1.2 | 0.91 | 7 | 0.02 | < 0.1 |
| 28-Aug-09 | Maxx | 7.7 | 5600 | 426 | 610 | 1570 | 0.034 | 10 | 200 | 880 | 29 | 3.2 | 8.3 | 1.1 | 3.5 | 8 | < 0.01 | < 0.1 |
| 19-Nov-09 | Maxx | 7.7 | 4870 | 419 | 620 | 1330 | 0.065 | 39 | 200 | 750 | 31 | 2.4 | 4.3 | 0.84 | 4 | 19 | 0.01 | < 0.1 |
| 19-May-10 | Maxx | 7.6 | 3760 | 388 | 500 | 1040 | 0.033 | < 1 | 160 | 690 | 27 | 1.9 | 7.5 | 0.78 | 1.3 | 17 | < 0.01 | < 0.1 |
| 27-Oct-10 | Maxx | 7.95 | 3820 | 487 | 460 | 965 | 0.046 | 40 | 150 | 720 | 24 | 2.1 | 9.1 | 0.81 | 2.7 | 10 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 11-I Upper Till 4.6 - 5.8 m | 11-Apr-05 | Phili | 7.64 | 1768 | 338 | 359.3 | 363 | 0.038 | < 1 | 71.1 | 204 | 44.1 | 1.3 | < 0.03 | < 0.005 | < 0.03 | 45 | < 0.2 | 0.3 |
| | 21-Jun-05 | MAX | 8.16 | 1740 | 338 | 394 | 386 | 0.04 | 1 | 74.1 | 241 | 51.5 | 1.6 | < 0.05 | < 0.002 | 0.13 | 59.5 | < 1 | 0.1 |
| | 31-Aug-05 | MAX | 8.04 | 1720 | 355 | 398 | 339 | 0.042 | < 1 | 70 | 230 | 50 | | < 0.05 | 0.02 | < 0.05 | 45 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.1 | 1580 | 347 | 360 | 351 | 0.041 | < 1 | 76 | 250 | 53 | 1.7 | 0.059 | < 0.002 | < 0.05 | 54 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.2 | 1590 | 371 | 360 | 269 | 0.037 | < 1 | 68 | 230 | 46 | 1.5 | < 0.05 | < 0.002 | < 0.05 | 54 | < 0.01 | 0.2 |
| | 07-Jun-06 | Maxx | 8.2 | 1650 | 366 | 360 | 296 | 0.037 | < 1 | 68 | 230 | 47 | 1.5 | < 0.05 | < 0.002 | 0.12 | 54 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.1 | 1650 | 368 | 410 | 325 | 0.044 | < 1 | 74 | 280 | 55 | 1.6 | < 0.05 | < 0.002 | 0.05 | 54 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.2 | 1670 | 378 | 360 | 289 | 0.042 | < 1 | 69 | 230 | 46 | 1.7 | < 0.05 | < 0.002 | 0.12 | 53 | < 0.01 | 0.1 |
| | 10-Apr-07 | Maxx | 8.2 | 1630 | 361 | 380 | 284 | 0.041 | < 1 | 7 | 240 | 49 | 1.6 | < 0.05 | < 0.002 | 0.11 | 54 | < 0.01 | < 0.1 |
| | 18-Jun-07 | Maxx | 8.4 | 1600 | 359 | 330 | 291 | 0.037 | < 1 | 64 | 220 | 43 | 1.5 | < 0.05 | < 0.002 | 0.07 | 56 | < 0.01 | < 0.1 |
| | 13-Aug-07 | Maxx | 8.4 | 1580 | 351 | 360 | 287 | 0.046 | < 1 | 65 | 230 | 47 | 1.6 | < 0.05 | < 0.002 | 0.09 | 55 | < 0.01 | < 0.1 |
| | 14-Nov-07 | Maxx | 8.3 | 1620 | 347 | 360 | 286 | 0.044 | < 1 | 67 | 240 | 48 | 1.7 | < 0.1 | < 0.002 | < 0.05 | 53 | < 0.01 | < 0.1 |
| | 29-Apr-08 | Maxx | 8.4 | 1280 | 363 | 270 | 173 | 0.042 | < 1 | 53 | 190 | 34 | 1.3 | < 0.1 | < 0.002 | < 0.05 | 44 | < 0.01 | 0.2 |
| | 17-Jun-08 | Maxx | 8.4 | 1370 | 357 | 290 | 195 | 0.043 | < 1 | 54 | 210 | 37 | 1.8 | < 0.1 | < 0.002 | < 0.05 | 47 | < 0.01 | < 0.1 |
| | 08-Sep-08 | Maxx | 8.3 | 1420 | 359 | 270 | 197 | 0.042 | < 1 | 52 | 200 | 35 | 1.4 | < 0.1 | < 0.002 | < 0.05 | 49 | < 0.01 | < 0.1 |
| | 25-Nov-08 | Maxx | 8.3 | 1420 | 369 | 310 | 225 | 0.041 | < 1 | 58 | 220 | 40 | 2 | < 0.1 | < 0.002 | 0.07 | 46 | 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.8 | 1160 | 374 | 240 | 132 | 0.045 | < 1 | 48 | 170 | 28 | 1.3 | < 0.1 | < 0.002 | < 0.05 | 48 | < 0.01 | 0.2 |
| | 22-Jun-09 | Maxx | 8.2 | 1220 | 365 | 250 | 148 | 0.042 | < 1 | 47 | 190 | 32 | 1.2 | < 0.1 | 0.008 | < 0.05 | 49 | < 0.01 | 0.1 |
| | 27-Aug-09 | Maxx | 8 | 1310 | 374 | 260 | 179 | 0.039 | < 1 | 49 | 200 | 34 | 1.4 | 0.45 | 0.049 | 0.46 | 52 | < 0.01 | 0.1 |
| | 17-Nov-09 | Maxx | 8 | 1350 | 359 | 280 | 185 | 0.039 | < 1 | 51 | 210 | 36 | 1.4 | < 0.1 | 0.019 | < 0.05 | 50 | < 0.01 | 0.2 |
| | 18-May-10 | Maxx | 8.1 | 1230 | 364 | 230 | 159 | 0.038 | < 1 | 43 | 170 | 29 | 1.2 | < 0.1 | < 0.002 | < 0.05 | 57 | < 0.01 | < 0.1 |
| | 26-Oct-10 | Maxx | 7.84 | 863 | 380 | 350 | 32 | 0.064 | < 1 | 100 | 76 | 22 | 1.6 | < 0.1 | 0.054 | < 0.05 | 24 | < 0.01 | 1.9 |
| **Monitor** 11-II Outwash 0.2 - 2.9 m | 11-Apr-05 | Phili | 7.3 | 657 | 296 | 301 | 16.8 | 0.061 | < 1 | 98.8 | 17.3 | 13.1 | 0.2 | < 0.03 | < 0.005 | < 0.03 | 19 | < 0.2 | 5.7 |
| | 31-Aug-05 | MAX | | | | 252 | 84 | 0.043 | < 1 | 69 | 110 | 15 | | < 0.05 | < 0.002 | < 0.05 | 30 | < 0.01 | 2.5 |
| | 28-Apr-06 | Maxx | 8.2 | 606 | 318 | 320 | 7 | 0.075 | < 1 | 100 | 18 | 16 | 0.34 | < 0.05 | < 0.002 | < 0.05 | 13 | < 0.01 | 3 |
| | 30-Aug-06 | MAX | 8 | 768 | 363 | 260 | 43 | 0.05 | < 1 | 78 | 87 | 16 | 2.3 | < 0.05 | 0.19 | 0.18 | 22 | < 0.01 | 0.9 |
| | 10-Apr-07 | Maxx | 8 | 686 | 331 | 330 | 10 | 0.068 | < 1 | 100 | 27 | 18 | 0.43 | < 0.05 | 0.003 | 0.09 | 17 | < 0.01 | 3.9 |
| | 13-Aug-07 | Dry | | | | | | | | | | | | | | | | | |
| | 29-Apr-08 | Maxx | 8.3 | 639 | 298 | 300 | 14 | 0.079 | < 1 | 93 | 30 | 16 | 0.51 | < 0.1 | 0.035 | < 0.05 | 22 | < 0.01 | 1.3 |
| | 08-Sep-08 | Maxx | 8.1 | 760 | 340 | 290 | 26 | 0.063 | < 1 | 88 | 53 | 17 | 1.9 | 0.61 | 0.58 | 0.64 | 16 | 0.14 | 0.9 |
| | 30-Apr-09 | Maxx | 7.6 | 638 | 312 | 300 | 9 | 0.064 | < 1 | 95 | 13 | 15 | 0.27 | < 0.1 | < 0.002 | < 0.05 | 13 | < 0.01 | 6.4 |
| | 27-Aug-09 | Maxx | 7.9 | 812 | 346 | 290 | 42 | 0.04 | < 1 | 88 | 62 | 18 | 1.8 | < 0.1 | 0.021 | < 0.05 | 19 | < 0.01 | 1.8 |
| | 26-Oct-10 | Maxx | 8.14 | 1230 | 366 | 250 | 147 | 0.044 | < 1 | 46 | 190 | 32 | 1.4 | < 0.1 | 0.026 | 0.07 | 53 | < 0.01 | 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 11-III Lower Till 18.5 - 17.0 m | 11-Apr-05 | Phili | 8.13 | 293 | 148 | 62.1 | 4.5 | 0.254 | 1 | 15.8 | 38.4 | 5.52 | 0.8 | < 0.03 | 0.019 | 0.2 | 4.6 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.2 | 278 | 160 | 68.4 | 4 | 0.24 | < 1 | 19 | 42 | 6.8 | | 0.23 | 0.025 | 0.26 | 6 | 0.02 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 298 | 160 | 75 | 4 | 0.24 | < 1 | 18 | 43 | 7.2 | 1.1 | < 0.05 | 0.014 | 0.22 | 6 | 0.02 | 0.2 |
| | 30-Aug-06 | MAX | 8.2 | 299 | 162 | 80 | 4 | 0.22 | < 1 | 19 | 50 | 7.8 | 1.2 | 0.07 | 0.022 | 0.2 | 7 | 0.02 | 0.2 |
| | 10-Apr-07 | Maxx | 8.3 | 309 | 153 | 76 | 5 | 0.23 | 2 | 18 | 47 | 7.4 | 1.1 | < 0.05 | 0.009 | 0.23 | 7 | 0.02 | 0.2 |
| | 14-Aug-07 | Maxx | 8.3 | 294 | 152 | 70 | 5 | 0.26 | < 1 | 17 | 44 | 6.9 | 1 | < 0.05 | 0.018 | 0.32 | 7 | < 0.01 | < 0.1 |
| | 29-Apr-08 | Maxx | 8.3 | 273 | 139 | 62 | 3 | 0.25 | < 1 | 15 | 42 | 6.1 | 0.82 | < 0.1 | 0.014 | 0.17 | 4 | 0.02 | < 0.1 |
| | 08-Sep-08 | Maxx | 8.3 | 303 | 153 | 70 | 2 | 0.22 | < 1 | 17 | 43 | 6.9 | 1 | < 0.1 | 0.018 | 0.19 | 5 | 0.01 | 0.1 |
| | 30-Apr-09 | Maxx | 7.7 | 274 | 145 | 66 | 4 | 0.25 | < 1 | 17 | 42 | 6.1 | 0.74 | < 0.1 | < 0.002 | < 0.05 | 4 | 0.01 | 0.1 |
| | 27-Aug-09 | Maxx | 8.2 | 264 | 135 | 55 | 4 | 0.24 | < 1 | 14 | 38 | 4.9 | 0.57 | < 0.1 | 0.012 | < 0.05 | 4 | < 0.01 | < 0.1 |
| | 26-Oct-10 | Maxx | 8.21 | 289 | 138 | 55 | 4 | 0.36 | < 1 | 13 | 49 | 5.2 | 0.77 | < 0.1 | 0.021 | 0.19 | 5 | < 0.01 | < 0.1 |
| **Monitor** 13-I Bedrock 24.4 - 25.6 m | 11-Apr-05 | Phili | 8.14 | 292 | 151 | 72.7 | 0.7 | 0.103 | < 1 | 17.3 | 35.1 | 7.17 | 0.7 | 0.13 | 0.006 | 0.41 | 0.5 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.28 | 271 | 164 | 82.3 | 2 | 0.093 | < 1 | 19 | 38 | 8.8 | | 0.18 | 0.006 | 0.49 | 1 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 281 | 164 | 78 | 1 | 0.11 | < 1 | 18 | 38 | 7.9 | 0.87 | 0.12 | 0.005 | 0.39 | 1 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.2 | 281 | 163 | 79 | < 1 | 0.098 | < 1 | 18 | 35 | 8.1 | 0.83 | 0.15 | 0.006 | 0.44 | 1 | < 0.01 | < 0.1 |
| | 11-Apr-07 | Maxx | 8.3 | 294 | 158 | 83 | 2 | 0.11 | < 1 | 19 | 38 | 8.6 | 0.92 | 0.16 | 0.006 | 0.44 | 1 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.5 | 290 | 157 | 79 | 2 | 0.1 | < 1 | 18 | 36 | 8.4 | 0.89 | 0.13 | 0.006 | 0.62 | 1 | < 0.01 | < 0.1 |
| | 02-May-08 | Maxx | 8.4 | 283 | 154 | 80 | 1 | 0.098 | < 1 | 18 | 36 | 8.8 | 0.83 | 0.14 | 0.006 | 0.33 | 1 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.1 | 279 | 149 | 78 | < 1 | 0.093 | < 1 | 17 | 37 | 8.4 | 0.85 | 0.15 | 0.006 | 0.26 | 1 | < 0.01 | < 0.1 |
| | 28-Apr-09 | Maxx | 8.2 | 282 | 154 | 80 | < 1 | 0.1 | < 1 | 18 | 41 | 8.7 | 0.85 | 0.14 | 0.007 | 0.34 | 1 | < 0.01 | < 0.1 |
| | 28-Aug-09 | Maxx | 8 | 281 | 158 | 72 | 1 | 0.093 | < 1 | 16 | 36 | 7.5 | 0.76 | 0.16 | 0.006 | 0.32 | 1 | < 0.01 | < 0.1 |
| | 27-Oct-10 | Maxx | 8.14 | 284 | 147 | 77 | < 1 | 0.11 | < 1 | 17 | 33 | 8.5 | 0.75 | < 0.1 | 0.008 | 0.3 | 1 | < 0.01 | < 0.1 |
| **Monitor** 13-II Lower Till 19.5 - 20.1 m | 11-Apr-05 | Phili | 8.1 | 325 | 152 | 54.2 | 3.9 | 0.103 | < 1 | 17.6 | 53.3 | 2.5 | 0.4 | < 0.03 | 0.066 | < 0.03 | 7.1 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.28 | 311 | 172 | 56.8 | 3 | 0.092 | < 1 | 19 | 61 | 3.1 | | < 0.05 | 0.074 | < 0.05 | 6 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.4 | 295 | 152 | 61 | 4 | 0.11 | < 1 | 20 | 55 | 2.9 | 0.59 | < 0.05 | 0.06 | < 0.05 | 6 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.6 | 272 | 145 | 44 | 3 | 0.087 | < 1 | 14 | 62 | 2.5 | 0.56 | < 0.05 | 0.024 | 0.21 | 5 | < 0.01 | < 0.1 |
| | 11-Apr-07 | Maxx | 8.3 | 321 | 159 | 70 | 5 | 0.11 | < 1 | 22 | 65 | 3.5 | 0.62 | < 0.05 | 0.069 | 0.11 | 7 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.3 | 336 | 168 | 66 | 5 | 0.11 | < 1 | 21 | 58 | 3.3 | 0.73 | < 0.05 | 0.056 | 0.12 | 6 | < 0.01 | < 0.1 |
| | 02-May-08 | Maxx | 8.3 | 335 | 167 | 63 | 3 | 0.094 | < 1 | 20 | 57 | 3.2 | 1.1 | < 0.1 | 0.052 | < 0.05 | 6 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.3 | 332 | 166 | 60 | 3 | 0.09 | < 1 | 19 | 57 | 3.2 | 1 | < 0.1 | 0.03 | < 0.05 | 3 | < 0.01 | < 0.1 |
| | 28-Apr-09 | Maxx | 8.1 | 291 | 145 | 45 | 4 | 0.11 | < 1 | 13 | 61 | 2.9 | 0.93 | 0.14 | 0.05 | 0.16 | 4 | < 0.01 | < 0.1 |
| | 28-Aug-09 | Maxx | 8.2 | 327 | 159 | 54 | 7 | 0.092 | < 1 | 17 | 56 | 2.7 | 0.7 | < 0.1 | 0.069 | < 0.05 | 5 | < 0.01 | < 0.1 |
| | 27-Oct-10 | Maxx | 8.29 | 296 | 145 | 41 | 4 | 0.099 | < 1 | 12 | 56 | 2.6 | 0.55 | 0.32 | 0.032 | 0.26 | 3 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**13-III**
**Upper Till**
**7.6 - 8.8 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 8.09 | 326 | 166 | 151.7 | 4.4 | 0.087 | < 1 | 33.9 | 23.4 | 16.2 | 0.8 | 0.38 | 0.035 | 0.06 | 6.3 | < 0.2 | 0.4 |
| 21-Jun-05 | MAX | 8.28 | 314 | 170 | 123 | 3.59 | 0.09 | < 1 | 24.5 | 25.9 | 16.4 | 1 | < 0.05 | 0.005 | 0.07 | 3.6 | < 0.1 | 0.2 |
| 31-Aug-05 | MAX | 8.28 | 310 | 181 | 132 | 2 | 0.087 | < 1 | 23 | 24 | 17 | | < 0.05 | 0.003 | < 0.05 | 8 | < 0.01 | 0.1 |
| 15-Nov-05 | MAX | 8.21 | 269 | 171 | 120 | 3 | 0.078 | < 1 | 24 | 24 | 16 | 0.89 | < 0.05 | 0.007 | 0.1 | 3 | < 0.01 | 0.2 |
| 28-Apr-06 | Maxx | 8.3 | 317 | 181 | 130 | 2 | 0.089 | < 1 | 24 | 25 | 17 | 0.86 | < 0.05 | 0.002 | 0.06 | 4 | < 0.01 | 0.1 |
| 07-Jun-06 | Maxx | 8.2 | 324 | 180 | 130 | 2 | 0.082 | < 1 | 24 | 24 | 16 | 0.78 | < 0.05 | 0.006 | < 0.05 | 5 | < 0.01 | 0.2 |
| 30-Aug-06 | MAX | 8.3 | 321 | 183 | 130 | 3 | 0.085 | < 1 | 24 | 25 | 17 | 0.97 | < 0.05 | 0.005 | 0.06 | 5 | < 0.01 | 0.1 |
| 24-Nov-06 | MAX | 8.3 | 324 | 182 | 120 | 2 | 0.086 | < 1 | 22 | 24 | 16 | 0.81 | < 0.05 | 0.004 | 0.11 | 4 | < 0.01 | 0.2 |
| 11-Apr-07 | Maxx | 8.2 | 325 | 173 | 140 | 3 | 0.09 | < 1 | 25 | 26 | 19 | 0.91 | < 0.05 | < 0.002 | 0.1 | 6 | < 0.01 | 0.2 |
| 18-Jun-07 | Maxx | 8.2 | 319 | 172 | 130 | 3 | 0.083 | < 1 | 24 | 26 | 18 | 0.9 | < 0.05 | 0.003 | 0.2 | 6 | < 0.01 | 0.1 |
| 14-Aug-07 | Maxx | 8.3 | 321 | 168 | 130 | 3 | 0.091 | < 1 | 24 | 27 | 18 | 0.97 | < 0.05 | 0.002 | 0.06 | 4 | < 0.01 | 0.2 |
| 14-Nov-07 | Maxx | 8.2 | 314 | 166 | 120 | 2 | 0.082 | < 1 | 21 | 21 | 15 | 0.73 | < 0.1 | < 0.002 | < 0.05 | 4 | < 0.01 | 0.2 |
| 02-May-08 | Maxx | 8.3 | 316 | 166 | 120 | 4 | 0.091 | < 1 | 22 | 23 | 16 | 0.81 | < 0.1 | 0.002 | < 0.05 | 6 | < 0.01 | 0.2 |
| 17-Jun-08 | Maxx | 8.3 | 316 | 163 | 130 | 1 | 0.089 | < 1 | 24 | 25 | 17 | 0.97 | < 0.1 | < 0.002 | < 0.05 | 4 | < 0.01 | 0.2 |
| 09-Sep-08 | Maxx | 8.2 | 312 | 163 | 120 | 1 | 0.083 | < 1 | 23 | 24 | 16 | 0.86 | < 0.1 | 0.004 | < 0.05 | 2 | < 0.01 | 0.2 |
| 25-Nov-08 | Maxx | 8.2 | 317 | 167 | 110 | 2 | 0.078 | < 1 | 21 | 23 | 15 | 1.1 | < 0.1 | 0.008 | < 0.05 | 1 | < 0.01 | 0.2 |
| 28-Apr-09 | Maxx | 8.4 | 317 | 167 | 130 | 2 | 0.089 | < 1 | 23 | 28 | 17 | 1.3 | < 0.1 | < 0.002 | < 0.05 | 5 | < 0.01 | 0.2 |
| 26-Jun-09 | Maxx | 8.1 | 319 | 166 | 120 | 2 | 0.083 | < 1 | 22 | 27 | 16 | 1 | < 0.1 | < 0.002 | < 0.05 | 4 | < 0.01 | 0.2 |
| 28-Aug-09 | Maxx | 7.9 | 320 | 175 | 120 | 2 | 0.08 | < 1 | 22 | 24 | 15 | 0.81 | < 0.1 | 0.002 | < 0.05 | 3 | < 0.01 | 0.3 |
| 18-Nov-09 | Maxx | 8.1 | 329 | 174 | 120 | 3 | 0.079 | < 1 | 23 | 24 | 16 | 0.93 | < 0.1 | 0.051 | 0.12 | 3 | < 0.01 | < 0.1 |
| 19-May-10 | Maxx | 8.2 | 325 | 166 | 130 | 2 | 0.087 | < 1 | 24 | 23 | 17 | 0.91 | < 0.1 | < 0.002 | < 0.05 | 5 | < 0.01 | 0.1 |
| 27-Oct-10 | Maxx | 8.26 | 322 | 166 | 120 | 2 | 0.076 | < 1 | 24 | 23 | 15 | 0.91 | < 0.1 | < 0.002 | < 0.05 | 3 | < 0.01 | 0.3 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** | 11-Apr-05 | Phili | 7.19 | 8286 | 481 | 1077 | 2530 | < 0.05 | < 1 | 318 | 1260 | 68.7 | 3.2 | 13.6 | 0.323 | 4.62 | 20.6 | < 2 | < 0.2 |
| **13-IV** | 21-Jun-05 | MAX | 7.92 | 7760 | 518 | 954 | 2600 | < 0.1 | < 1 | 313 | 1220 | 59.1 | 3 | 11.2 | 0.3 | 4.54 | 18.1 | < 10 | < 0.1 |
| **Outwash** | 31-Aug-05 | MAX | 7.8 | 7460 | 537 | 982 | 2450 | 0.025 | < 1 | 290 | 1400 | 67 | | 13 | 0.28 | 4.48 | 7 | 0.05 | < 0.1 |
| **4.1 - 5.3 m** | 15-Nov-05 | MAX | 7.83 | 7750 | 510 | 1200 | 2720 | < 0.1 | < 1 | 390 | 1500 | 82 | 3.5 | 17 | 0.37 | 6.4 | 18 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8 | 8660 | 567 | 1100 | 2280 | < 0.05 | < 1 | 340 | 1600 | 73 | 4.4 | 16 | 0.3 | 3.93 | 10 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 7.9 | 7690 | 567 | 920 | 2300 | 0.027 | < 1 | 270 | 1400 | 59 | 3.4 | 14 | 0.27 | 4.87 | 8 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 7.7 | 6660 | 536 | 830 | 2060 | < 0.05 | < 1 | 240 | 1200 | 55 | 3.3 | 11 | 0.24 | 4.9 | 18 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 7.9 | 8700 | 529 | 1200 | 2780 | < 0.05 | < 1 | 350 | 1500 | 80 | 4.2 | 12 | 0.37 | 8.1 | 16 | < 0.01 | < 0.1 |
| | 11-Apr-07 | Maxx | 7.9 | 8640 | 568 | 1100 | 2700 | < 0.05 | 2 | 310 | 1600 | 72 | 4 | 0.3 | 0.31 | 6.5 | 10 | < 0.01 | < 0.1 |
| | 18-Jun-07 | Maxx | 8.1 | 7300 | 524 | 940 | 2140 | < 0.05 | 2 | 280 | 1400 | 60 | 3.6 | 14 | 0.27 | 4.99 | 14 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8 | 6710 | 540 | 910 | 2260 | < 0.05 | < 1 | 270 | 1400 | 61 | 3.9 | 13 | 0.29 | 6.3 | 11 | < 0.01 | < 0.1 |
| | 14-Nov-07 | Maxx | 7.9 | 6810 | 507 | 760 | 1990 | < 0.05 | < 1 | 220 | 1100 | 51 | 3.4 | 12 | 0.26 | 6.4 | 15 | < 0.01 | < 0.1 |
| | 02-May-08 | Maxx | 8.1 | 6370 | 434 | 840 | 2380 | 0.026 | < 1 | 250 | 1200 | 55 | 3.3 | 12 | 0.27 | 4.3 | 30 | < 0.01 | < 0.1 |
| | 17-Jun-08 | Maxx | 7.9 | 9020 | 472 | 1100 | 2570 | 0.022 | < 1 | 330 | 1300 | 69 | 3.5 | 16 | 0.41 | 6.6 | 60 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8 | 10900 | 426 | 1500 | 2860 | 0.078 | < 1 | 450 | 1900 | 100 | 4.7 | 22 | 0.58 | 8.6 | 99 | < 0.01 | < 0.1 |
| | 25-Nov-08 | Maxx | 7.9 | 11000 | 361 | 1400 | 4620 | 0.034 | < 1 | 410 | 1900 | 96 | 5.1 | 13 | 0.52 | 8.4 | 81 | < 0.01 | < 0.1 |
| | 28-Apr-09 | Maxx | 7.7 | 9430 | 447 | 1300 | 2800 | 0.032 | < 1 | 350 | 1800 | 98 | 4.5 | 16 | 0.42 | 9.6 | 110 | < 0.01 | < 0.1 |
| | 26-Jun-09 | Maxx | 7.9 | 7620 | 459 | 880 | 2390 | < 0.05 | < 1 | 240 | 1400 | 70 | 3.4 | 10 | 0.29 | 5.8 | 84 | 0.04 | 1.4 |
| | 28-Aug-09 | Maxx | 7.6 | 6970 | 489 | 720 | 1990 | 0.034 | < 1 | 200 | 1100 | 51 | 2.6 | 7.8 | 0.24 | 4.6 | 64 | < 0.01 | < 0.1 |
| | 18-Nov-09 | Maxx | 7.7 | 6630 | 440 | 710 | 1860 | 0.034 | < 1 | 190 | 1200 | 55 | 3.3 | 3.2 | 0.21 | 2.8 | 73 | 0.03 | 0.5 |
| | 19-May-10 | Maxx | 7.7 | 6340 | 440 | 660 | 1830 | 0.079 | < 1 | 170 | 1000 | 55 | 2.4 | 1.9 | 0.23 | 3.1 | 68 | < 0.01 | < 0.1 |
| | 27-Oct-10 | Maxx | 7.64 | 4660 | 426 | 470 | 1280 | 0.037 | < 1 | 120 | 840 | 39 | 2.3 | 3 | 0.15 | 3 | 31 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**13-V**
**Outwash**
**0.1 - 2.2 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.7 | 644 | 326 | 313.9 | 14.5 | 0.021 | < 1 | 99.8 | 8 | 15.7 | < 0.1 | < 0.03 | < 0.005 | 0.07 | 10.7 | < 0.2 | < 0.2 |
| 21-Jun-05 | INV | | | | | | | | | | | | | | | | | |
| 31-Aug-05 | INV | | | | | | | | | | | | | | | | | |
| 15-Nov-05 | MAX | 8.19 | 395 | 236 | 230 | 10 | 0.034 | < 1 | 82 | 9.9 | 13 | 0.69 | < 0.05 | < 0.002 | < 0.05 | 14 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.3 | 394 | 214 | 220 | 4 | 0.038 | < 1 | 72 | 4.7 | 9.4 | 0.84 | < 0.05 | < 0.002 | 0.14 | 5 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.1 | 725 | 435 | 410 | 3 | 0.053 | < 1 | 130 | 12 | 20 | 0.43 | 0.48 | 0.14 | < 0.05 | 2 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 8 | 928 | 595 | 600 | 3 | 0.078 | < 1 | 190 | 16 | 31 | < 0.2 | 4.7 | 0.2 | 0.07 | 1 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8 | 662 | 378 | 350 | 3 | 0.021 | < 1 | 110 | 7.5 | 18 | 0.21 | < 0.05 | < 0.002 | 0.09 | 10 | < 0.01 | < 0.1 |
| 11-Apr-07 | Maxx | 8.2 | 631 | 329 | 370 | 11 | 0.016 | < 1 | 120 | 7.3 | 19 | 0.42 | < 0.05 | < 0.002 | 0.05 | 12 | < 0.01 | < 0.1 |
| 18-Jun-07 | Maxx | 8.1 | 790 | 474 | 490 | 2 | 0.045 | < 1 | 160 | 9.4 | 23 | < 0.2 | 0.19 | 0.028 | 0.09 | 1 | < 0.01 | < 0.1 |
| 14-Aug-07 | INV | | | | | | | | | | | | | | | | | |
| 14-Nov-07 | INV | | | | | | | | | | | | | | | | | |
| 02-May-08 | Maxx | 8.1 | 1140 | 469 | 520 | 85 | 0.029 | < 1 | 170 | 54 | 25 | 2.1 | < 0.1 | 0.14 | < 0.05 | 19 | < 0.01 | < 0.1 |
| 17-Jun-08 | Maxx | 8.1 | 1310 | 526 | 540 | 128 | 0.038 | < 1 | 170 | 62 | 26 | 1.8 | 0.36 | 0.1 | < 0.05 | 6 | < 0.01 | < 0.1 |
| 09-Sep-08 | Maxx | 8 | 3310 | 536 | 1100 | 608 | 0.058 | < 1 | 350 | 330 | 48 | 4.7 | < 0.1 | 0.094 | < 0.05 | 221 | 0.02 | 1.1 |
| 25-Nov-08 | Maxx | 8.1 | 2530 | 509 | 960 | 517 | 0.02 | < 1 | 290 | 200 | 57 | 1.3 | < 0.1 | 0.008 | < 0.05 | 198 | < 0.01 | < 0.1 |
| 28-Apr-09 | Maxx | 8 | 1420 | 416 | 450 | 162 | 0.037 | < 1 | 150 | 180 | 21 | 2 | < 0.1 | < 0.002 | < 0.05 | 86 | < 0.01 | 0.1 |
| 26-Jun-09 | Maxx | 7.7 | 1660 | 601 | 560 | 184 | 0.053 | 1 | 180 | 190 | 29 | 1.3 | 0.74 | 0.13 | < 0.05 | 45 | < 0.01 | < 0.1 |
| 28-Aug-09 | Maxx | 7.6 | 1890 | 664 | 600 | 207 | 0.055 | < 1 | 190 | 200 | 28 | 1.6 | 2.9 | 0.13 | 0.1 | 69 | < 0.01 | < 0.1 |
| 18-Nov-09 | Maxx | 7.8 | 2090 | 539 | 680 | 238 | 0.024 | < 1 | 220 | 220 | 35 | 0.51 | < 0.1 | < 0.002 | 0.43 | 245 | < 0.01 | 0.3 |
| 19-May-10 | Maxx | 7.8 | 1630 | 554 | 520 | 139 | 0.036 | < 1 | 170 | 150 | 26 | 0.68 | < 0.1 | < 0.002 | < 0.05 | 145 | < 0.01 | < 0.1 |
| 27-Oct-10 | Maxx | 7.56 | 1150 | 407 | 470 | 76 | 0.037 | < 1 | 150 | 78 | 24 | 0.8 | < 0.1 | < 0.002 | 0.3 | 96 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**14-II**
**Outwash**
**4.5 - 5.1 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.36 | 1690 | 446 | 741.3 | 216 | 0.252 | < 1 | 184 | 61.8 | 68 | 2.6 | 0.09 | 0.22 | 1.1 | 170 | < 0.2 | 6.3 |
| 21-Jun-05 | MAX | 7.86 | 1650 | 459 | 787 | 217 | 0.25 | < 1 | 200 | 72.8 | 77.4 | 3.2 | 1.08 | 0.201 | 1.84 | 31.5 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 7.89 | 2000 | 483 | 915 | 339 | 0.19 | < 1 | 240 | 100 | 93 | | 2.1 | 0.2 | 1.48 | 137 | 0.02 | 0.5 |
| 15-Nov-05 | MAX | 8.02 | 1870 | 443 | 870 | 360 | 0.16 | < 1 | 260 | 180 | 110 | 3.6 | 3.3 | 0.22 | 1.53 | 144 | 0.29 | 0.6 |
| 28-Apr-06 | Maxx | 8 | 2220 | 510 | 990 | 380 | 0.21 | < 1 | 240 | 120 | 95 | 3.1 | < 0.05 | 0.19 | 0.86 | 121 | < 0.01 | 0.2 |
| 07-Jun-06 | Maxx | 7.9 | 2170 | 540 | 940 | 375 | 0.19 | < 1 | 220 | 110 | 93 | 3.1 | 0.12 | 0.24 | 1.57 | 107 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 8 | 2070 | 576 | 1000 | 356 | 0.2 | < 1 | 250 | 120 | 98 | 3.6 | 2 | 0.26 | 2.18 | 102 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8 | 2230 | 560 | 950 | 390 | 0.21 | < 1 | 230 | 96 | 92 | 3.3 | 0.18 | 0.22 | 1.62 | 97 | < 0.01 | 0.4 |
| 12-Apr-07 | Maxx | 8.1 | 2090 | 551 | 920 | 337 | 0.22 | < 1 | 220 | 100 | 89 | 2.9 | 0.085 | 0.27 | 1.2 | 102 | < 0.01 | 0.2 |
| 18-Jun-07 | Maxx | 8.1 | 2140 | 540 | 900 | 370 | 0.22 | < 1 | 220 | 100 | 87 | 3.3 | < 0.05 | 0.21 | 0.8 | 93 | 0.06 | < 0.1 |
| 13-Aug-07 | Maxx | 8.1 | 1810 | 565 | 890 | 281 | 0.24 | 2 | 210 | 98 | 88 | 3.4 | 1.5 | 0.24 | 2.08 | 98 | < 0.01 | < 0.1 |
| 14-Nov-07 | Maxx | 8.1 | 1980 | 553 | 800 | 302 | 0.27 | < 1 | 200 | 88 | 73 | 3.1 | 0.36 | 0.19 | 2.08 | 91 | < 0.01 | < 0.1 |
| 01-May-08 | Maxx | 8 | 2250 | 529 | 950 | 440 | 0.23 | < 1 | 230 | 130 | 94 | 3.2 | < 0.1 | 0.11 | 0.28 | 88 | < 0.01 | 0.2 |
| 17-Jun-08 | Maxx | 8.1 | 2410 | 530 | 990 | 403 | 0.21 | < 1 | 230 | 160 | 99 | 3.4 | 0.13 | 0.26 | 1.4 | 87 | 0.04 | < 0.1 |
| 10-Sep-08 | Maxx | 8.1 | 2090 | 559 | 890 | 328 | 0.24 | < 1 | 220 | 120 | 85 | 3.8 | 1.8 | 0.25 | 2 | 78 | < 0.01 | < 0.1 |
| 25-Nov-08 | Maxx | 8 | 2850 | 391 | 970 | 736 | 0.22 | < 1 | 230 | 170 | 95 | 3.4 | 0.59 | 0.2 | 1.2 | 81 | < 0.01 | 0.2 |
| 28-Apr-09 | Maxx | 7.9 | 3100 | 475 | 1000 | 709 | 0.23 | < 1 | 230 | 210 | 110 | 3.7 | < 0.1 | 0.075 | 0.34 | 93 | < 0.01 | 0.3 |
| 26-Jun-09 | Maxx | 7.7 | 2430 | 504 | 1200 | 497 | 0.21 | 2 | 280 | 310 | 120 | 3.8 | 1.4 | 0.25 | 1.6 | 91 | 0.07 | 1.1 |
| 28-Aug-09 | Maxx | 7.6 | 2420 | 541 | 920 | 440 | 0.27 | < 1 | 230 | 140 | 85 | 3.1 | 1.5 | 0.28 | 2 | 96 | < 0.01 | < 0.1 |
| 18-Nov-09 | Maxx | 7.7 | 3450 | 462 | 1100 | 819 | 0.25 | < 1 | 260 | 250 | 100 | 3.8 | 1.9 | 0.19 | 1.1 | 88 | 0.02 | 0.4 |
| 19-May-10 | Maxx | 7.6 | 4060 | 406 | 1200 | 1100 | 0.22 | < 1 | 290 | 250 | 120 | 3.5 | 0.13 | 0.043 | 0.39 | 90 | < 0.01 | 0.3 |
| 02-Nov-10 | Maxx | 7.77 | 3800 | 418 | 1100 | 919 | 0.17 | < 1 | 270 | 270 | 100 | 3.5 | 0.71 | 0.35 | 1.6 | 125 | 0.08 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**14-III**
**Outwash**
**0.2 - 2.3 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | INV | | | | | | | | | | | | | | | | | |
| 21-Jun-05 | INV | | | | | | | | | | | | | | | | | |
| 31-Aug-05 | INV | | | | | | | | | | | | | | | | | |
| 15-Nov-05 | INV | | | | | | | | | | | | | | | | | |
| 28-Apr-06 | Maxx | 8.1 | 645 | 374 | 400 | 7 | 0.12 | < 1 | 110 | 12 | 28 | 5.2 | 1.3 | 0.58 | 0.06 | 7 | < 0.01 | 0.1 |
| 07-Jun-06 | Maxx | 8.2 | 1060 | 635 | 590 | 21 | 0.1 | < 1 | 160 | 27 | 49 | 4.2 | 11 | 1.5 | 0.07 | 3 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 7.9 | 1410 | 885 | 810 | 37 | 0.13 | < 1 | 220 | 39 | 65 | 7.3 | 28 | 1.7 | 0.08 | 1 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8.1 | 813 | 472 | 420 | 8 | 0.13 | < 1 | 120 | 12 | 31 | 4.2 | 5.5 | 0.43 | 0.14 | 7 | < 0.01 | < 0.1 |
| 12-Apr-07 | Maxx | 8.1 | 1050 | 580 | 630 | 20 | 0.099 | < 1 | 170 | 25 | 53 | 3.7 | 14 | 0.94 | 0.12 | 7 | < 0.01 | < 0.1 |
| 18-Jun-07 | Maxx | 8.1 | 1350 | 768 | 870 | 43 | 0.11 | < 1 | 230 | 46 | 76 | 5.4 | 36 | 1.3 | 0.13 | 1 | < 0.01 | < 0.1 |
| 13-Aug-07 | INV | | | | | | | | | | | | | | | | | |
| 14-Nov-07 | INV | | | | | | | | | | | | | | | | | |
| 01-May-08 | Maxx | 8.1 | 1050 | 554 | 580 | 22 | 0.11 | < 1 | 150 | 28 | 49 | 2.8 | 3.4 | 1.4 | < 0.05 | 8 | < 0.01 | < 0.1 |
| 20-Jun-08 | INV | | | | | | | | | | | | | | | | | |
| 10-Sep-08 | INV | | | | | | | | | | | | | | | | | |
| 25-Nov-08 | Maxx | 8.1 | 1190 | 664 | 690 | 28 | 0.15 | < 1 | 180 | 38 | 61 | 3.1 | 11 | 0.7 | < 0.5 | 4 | < 0.01 | < 0.1 |
| 28-Apr-09 | Maxx | 7.8 | 887 | 472 | 540 | 18 | 0.1 | < 1 | 140 | 25 | 47 | 3.2 | 15 | 0.5 | < 0.05 | 5 | < 0.01 | < 0.1 |
| 26-Jun-09 | Maxx | 7.7 | 1380 | 741 | 770 | 37 | 0.11 | < 1 | 190 | 40 | 69 | 3.2 | 30 | 1.1 | 0.08 | 2 | < 0.01 | < 0.1 |
| 28-Aug-09 | Maxx | 7.7 | 1290 | 733 | 670 | 29 | 0.16 | < 1 | 170 | 33 | 61 | 2.6 | 24 | 0.51 | 0.1 | 5 | < 0.01 | < 0.1 |
| 18-Nov-09 | Maxx | 7.7 | 1290 | 678 | 700 | 40 | 0.15 | < 1 | 180 | 30 | 61 | 2.4 | 5.9 | 0.24 | 0.33 | 14 | < 0.01 | < 0.1 |
| 19-May-10 | Maxx | 7.5 | 1060 | 559 | 530 | 21 | 0.11 | 3 | 140 | 20 | 47 | 2.2 | 23 | 0.65 | < 0.05 | 6 | < 0.01 | < 0.1 |
| 02-Nov-10 | Maxx | 7.61 | 1160 | 603 | 530 | 27 | 0.17 | < 1 | 140 | 20 | 41 | 3.7 | 9.1 | 0.35 | < 0.05 | 19 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 14-IV Bedrock 25.6 - 27.1 m | 11-Apr-05 | Phili | 8.16 | 307 | 149 | 75.9 | 1.4 | 0.092 | < 1 | 18.8 | 37.5 | 7.01 | 1.1 | < 0.03 | < 0.005 | 0.15 | 0.8 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.22 | 294 | 160 | 72.1 | 8.13 | 0.09 | < 1 | 18.8 | 43.1 | 7.36 | 1.3 | < 0.05 | < 0.002 | 0.17 | 0.5 | < 0.1 | < 0.1 |
| | 31-Aug-05 | MAX | 8.32 | 287 | 170 | 78.7 | 1 | 0.089 | < 1 | 20 | 44 | 8.1 | | < 0.05 | < 0.002 | 0.16 | 14 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.42 | 268 | 166 | 75 | 1 | 0.096 | < 1 | 19 | 42 | 8.1 | 1.2 | < 0.05 | < 0.002 | 0.11 | 1 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.4 | 306 | 173 | 84 | 2 | 0.085 | < 1 | 20 | 42 | 8.3 | 1.3 | < 0.05 | < 0.002 | 0.2 | 1 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.3 | 305 | 170 | 81 | 1 | 0.089 | < 1 | 19 | 43 | 7.9 | 1.3 | < 0.05 | < 0.002 | 0.19 | 2 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.2 | 297 | 170 | 88 | 2 | 0.11 | < 1 | 20 | 54 | 9.4 | 1.3 | < 0.05 | < 0.002 | 0.25 | 1 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.3 | 306 | 171 | 82 | 1 | 0.091 | < 1 | 20 | 39 | 7.9 | 1.2 | < 0.05 | < 0.002 | 0.34 | 2 | < 0.01 | < 0.1 |
| | 13-Apr-07 | Maxx | 8.3 | 304 | 165 | 90 | 2 | 0.1 | < 1 | 21 | 43 | 9.1 | 1.4 | < 0.05 | < 0.002 | 0.33 | 1 | < 0.01 | < 0.1 |
| | 20-Jun-07 | Maxx | 8.2 | 301 | 163 | 81 | 3 | 0.1 | < 1 | 19 | 41 | 8 | 1.2 | < 0.05 | < 0.002 | 0.23 | 3 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.3 | 297 | 160 | 80 | 2 | 0.095 | < 1 | 19 | 40 | 8 | 1.2 | < 0.05 | < 0.002 | 0.27 | 1 | < 0.01 | < 0.1 |
| | 15-Nov-07 | Maxx | 8.3 | 304 | 162 | 92 | 1 | 0.091 | < 1 | 21 | 43 | 9.2 | 1.3 | < 0.1 | 0.005 | 0.21 | 1 | < 0.01 | < 0.1 |
| | 02-May-08 | Maxx | 8.4 | 305 | 162 | 82 | 1 | 0.092 | < 1 | 19 | 38 | 8.2 | 1.3 | < 0.1 | < 0.002 | 0.15 | 1 | < 0.01 | < 0.1 |
| | 20-Jun-08 | Maxx | 8.4 | 309 | 162 | 75 | < 1 | 0.093 | < 1 | 18 | 38 | 7.4 | 1.6 | < 0.1 | < 0.002 | 0.06 | 1 | < 0.01 | < 0.1 |
| | 11-Sep-08 | Maxx | 8.2 | 307 | 161 | 82 | < 1 | 0.09 | < 1 | 19 | 41 | 8.2 | 1.7 | < 0.1 | < 0.002 | 0.12 | 1 | < 0.01 | < 0.1 |
| | 25-Nov-08 | Maxx | 8.2 | 323 | 162 | 78 | < 1 | 0.14 | < 1 | 18 | 43 | 7.9 | 2.1 | < 0.1 | < 0.002 | 0.17 | 1 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.8 | 304 | 169 | 82 | 1 | 0.1 | < 1 | 20 | 48 | 7.7 | 1.7 | < 0.1 | < 0.002 | 0.12 | 1 | < 0.01 | < 0.1 |
| | 26-Jun-09 | Maxx | 8 | 303 | 159 | 82 | 1 | 0.094 | < 1 | 19 | 43 | 8.2 | 1.2 | < 0.1 | < 0.002 | 0.17 | 1 | < 0.01 | < 0.1 |
| | 28-Aug-09 | Maxx | 8.2 | 296 | 159 | 77 | 1 | 0.09 | < 1 | 18 | 39 | 7.5 | 1.1 | < 0.1 | < 0.002 | 0.14 | 1 | < 0.01 | < 0.1 |
| | 18-Nov-09 | Maxx | 8.1 | 302 | 158 | 76 | 3 | 0.085 | < 1 | 18 | 39 | 7.3 | 1.2 | < 0.1 | < 0.002 | 0.21 | 2 | < 0.01 | < 0.1 |
| | 19-May-10 | Maxx | 8.2 | 302 | 156 | 76 | < 1 | 0.094 | < 1 | 18 | 39 | 7.7 | 1.2 | < 0.1 | < 0.002 | 0.14 | 2 | < 0.01 | < 0.1 |
| | 02-Nov-10 | Maxx | 8.23 | 300 | 158 | 83 | 1 | 0.085 | < 1 | 20 | 40 | 7.8 | 1.2 | < 0.1 | 0.003 | < 0.05 | 1 | < 0.01 | < 0.1 |
| **Monitor** 15-I Bedrock 25.9 - 27.1 m | 11-Apr-05 | Phili | 8.11 | 318 | 165 | 83.2 | 1.2 | 0.091 | < 1 | 20 | 36.1 | 8.1 | 1 | 0.04 | < 0.005 | 0.27 | 0.6 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.17 | 297 | 177 | 89.2 | 2 | 0.089 | < 1 | 19 | 38 | 8.6 | | < 0.05 | < 0.002 | 0.26 | 1 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 310 | 179 | 93 | 1 | 0.094 | < 1 | 21 | 40 | 9.7 | 1.2 | < 0.05 | < 0.002 | 0.28 | 1 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.3 | 306 | 180 | 94 | 2 | 0.096 | < 1 | 21 | 48 | 10 | 1.2 | < 0.05 | < 0.002 | 0.31 | 1 | < 0.01 | < 0.1 |
| | 12-Apr-07 | Maxx | 8.3 | 320 | 172 | 84 | 2 | 0.087 | < 1 | 19 | 38 | 8.9 | 1.1 | < 0.05 | < 0.002 | 0.34 | 1 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.3 | 315 | 167 | 84 | 2 | 0.093 | < 1 | 20 | 41 | 8.2 | 1.3 | < 0.05 | < 0.002 | 0.4 | 1 | < 0.01 | < 0.1 |
| | 29-Apr-08 | Maxx | 8.3 | 312 | 166 | 86 | 1 | 0.094 | < 1 | 20 | 38 | 8.9 | 1.2 | < 0.1 | < 0.002 | 0.24 | 1 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.3 | 311 | 167 | 86 | < 1 | 0.093 | < 1 | 19 | 40 | 9.2 | 1.2 | < 0.1 | < 0.002 | 0.19 | 1 | < 0.01 | < 0.1 |
| | 29-Apr-09 | Maxx | 7.8 | 313 | 182 | 92 | 1 | 0.09 | < 1 | 20 | 39 | 9.9 | 1.2 | < 0.1 | < 0.002 | 0.26 | 1 | < 0.01 | < 0.1 |
| | 25-Aug-09 | Maxx | 8.2 | 304 | 170 | 79 | 1 | 0.094 | < 1 | 19 | 36 | 7.7 | 0.9 | < 0.1 | < 0.002 | 0.25 | 1 | < 0.01 | < 0.1 |
| | 25-Oct-10 | Maxx | 8.25 | 303 | 161 | 73 | 2 | 0.095 | 1 | 17 | 44 | 7.2 | 1.1 | < 0.1 | < 0.002 | 0.19 | 1 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 15-II Lower Till 19.8 - 21.0 m | 11-Apr-05 | Phili | 8.55 | 274 | 132 | 40.9 | 2.2 | 0.125 | < 1 | 11.3 | 48.3 | 3.06 | 0.4 | 0.18 | 0.015 | 0.39 | 9.4 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.27 | 271 | 156 | 43.1 | 1 | 0.11 | < 1 | 12 | 55 | 3.7 | | < 0.05 | 0.009 | 0.2 | 9 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.4 | 284 | 157 | 45 | 2 | 0.13 | < 1 | 12 | 52 | 3.9 | 0.58 | < 0.05 | 0.008 | 0.35 | 3 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.6 | 268 | 145 | 38 | 3 | 0.12 | < 1 | 9.8 | 53 | 3.2 | 0.59 | < 0.05 | 0.007 | 0.42 | 6 | < 0.01 | < 0.1 |
| | 12-Apr-07 | Maxx | 8.4 | 291 | 147 | 44 | 5 | 0.13 | < 1 | 11 | 55 | 3.9 | 0.56 | < 0.05 | 0.009 | 0.44 | 4 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.4 | 284 | 151 | 47 | 3 | 0.12 | < 1 | 12 | 56 | 4.3 | 0.7 | < 0.05 | 0.014 | 0.4 | 3 | < 0.01 | < 0.1 |
| | 29-Apr-08 | Maxx | 8.4 | 288 | 148 | 45 | 3 | 0.11 | < 1 | 11 | 52 | 4.1 | 0.63 | < 0.1 | 0.013 | 0.36 | 2 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.3 | 286 | 149 | 48 | 2 | 0.13 | 11 | 12 | 54 | 4.2 | 0.77 | < 0.1 | 0.017 | 0.57 | 2 | < 0.01 | < 0.1 |
| | 29-Apr-09 | Maxx | 7.6 | 298 | 167 | 50 | 2 | 0.12 | < 1 | 13 | 54 | 4.2 | 0.57 | < 0.1 | 0.014 | 0.05 | 3 | < 0.01 | < 0.1 |
| | 25-Aug-09 | Maxx | 8.3 | 292 | 157 | 42 | 3 | 0.12 | < 1 | 11 | 43 | 3.3 | 0.38 | < 0.1 | 0.017 | 0.35 | 3 | < 0.01 | < 0.1 |
| | 25-Oct-10 | Maxx | 8.25 | 300 | 153 | 50 | 2 | 0.12 | < 1 | 13 | 51 | 4.1 | 0.57 | < 0.1 | 0.023 | 0.15 | 5 | < 0.01 | < 0.1 |
| **Monitor** 15-III Upper Till 9.0 - 10.2 m | 11-Apr-05 | Phili | 8.22 | 402 | 188 | 99.4 | 13.4 | 0.098 | < 1 | 18.6 | 44.7 | 12.8 | 1.4 | < 0.03 | 0.005 | 0.41 | 9.6 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.15 | 384 | 185 | 105 | 10.2 | 0.1 | < 1 | 20.2 | 47.3 | 13.6 | 1.7 | < 0.05 | 0.005 | 0.52 | 8.8 | < 0.1 | < 0.1 |
| | 31-Aug-05 | MAX | 8.33 | 371 | 195 | 111 | 10 | 0.09 | < 1 | 18 | 45 | 14 | | < 0.05 | 0.006 | 0.47 | 5 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.25 | 533 | 189 | 110 | 12 | 0.1 | < 1 | 19 | 49 | 16 | 1.6 | < 0.05 | 0.006 | 0.3 | 10 | < 0.01 | 0.2 |
| | 28-Apr-06 | Maxx | 8.4 | 417 | 205 | 120 | 13 | 0.098 | < 1 | 20 | 53 | 16 | 1.6 | < 0.05 | 0.005 | 0.72 | 11 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.3 | 409 | 199 | 110 | 12 | 0.093 | < 1 | 20 | 49 | 16 | 1.6 | < 0.05 | 0.007 | 0.35 | 11 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.3 | 379 | 193 | 120 | 13 | 0.1 | < 1 | 20 | 53 | 17 | 1.5 | < 0.05 | 0.006 | 0.64 | 9 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.3 | 390 | 194 | 120 | 11 | 0.1 | < 1 | 20 | 50 | 16 | 1.7 | < 0.05 | 0.005 | 0.34 | 9 | < 0.01 | 0.2 |
| | 12-Apr-07 | Maxx | 8.3 | 406 | 187 | 120 | 14 | 0.11 | < 1 | 20 | 51 | 17 | 1.6 | < 0.05 | 0.005 | 0.48 | 11 | < 0.01 | < 0.1 |
| | 20-Jun-07 | Maxx | 8.3 | 403 | 188 | 130 | 11 | 0.1 | < 1 | 22 | 51 | 17 | 1.7 | < 0.05 | 0.006 | 0.23 | 11 | < 0.01 | 0.1 |
| | 14-Aug-07 | Maxx | 8.3 | 403 | 186 | 110 | 13 | 0.11 | < 1 | 20 | 48 | 14 | 1.5 | < 0.05 | 0.006 | 0.43 | 10 | < 0.01 | 0.2 |
| | 15-Nov-07 | Maxx | 8.4 | 407 | 186 | 110 | 13 | 0.11 | < 1 | 19 | 45 | 15 | 1.5 | < 0.1 | 0.006 | 0.46 | 11 | < 0.01 | < 0.1 |
| | 29-Apr-08 | Maxx | 8.4 | 404 | 189 | 110 | 10 | 0.11 | < 1 | 19 | 48 | 15 | 1.5 | < 0.1 | 0.005 | 0.46 | 10 | < 0.01 | < 0.1 |
| | 17-Jun-08 | Maxx | 8.3 | 400 | 183 | 120 | 10 | 0.098 | < 1 | 21 | 51 | 17 | 1.8 | < 0.1 | 0.008 | 0.16 | 11 | 0.01 | 0.1 |
| | 09-Sep-08 | Maxx | 8.2 | 394 | 179 | 110 | 10 | 0.097 | < 1 | 19 | 44 | 15 | 1.8 | < 0.1 | 0.009 | 0.32 | 9 | < 0.01 | < 0.1 |
| | 25-Nov-08 | N/A | | | | | | | | | | | | | | | | | |
| | 29-Apr-09 | Maxx | 7.8 | 420 | 202 | 120 | 15 | 0.11 | < 1 | 21 | 51 | 17 | 1.8 | < 0.1 | 0.007 | 0.19 | 12 | < 0.01 | 0.4 |
| | 25-Aug-09 | Maxx | 8.2 | 426 | 199 | 110 | 15 | 0.1 | < 1 | 23 | 41 | 14 | 1.5 | 0.33 | 0.022 | 0.35 | 13 | < 0.01 | 0.6 |
| | 18-May-10 | Maxx | 8.2 | 436 | 193 | 120 | 15 | 0.1 | < 1 | 21 | 46 | 16 | 1.7 | < 0.1 | 0.005 | < 0.05 | 17 | < 0.01 | 0.5 |
| | 25-Oct-10 | Maxx | 8.16 | 470 | 209 | 130 | 16 | 0.11 | < 1 | 23 | 49 | 19 | 2 | 0.32 | 0.033 | 2.1 | 14 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**15-IV**
**Outwash**
**5.6 - 6.8 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.71 | 766 | 303 | 351.3 | 21 | 0.831 | < 1 | 85.9 | 26.1 | 33.2 | 1.2 | 0.89 | 0.131 | 0.96 | 70.4 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 8.08 | 695 | 301 | 337 | 18.6 | 0.6 | < 1 | 82.3 | 24.2 | 33.3 | 1.4 | 0.46 | 0.147 | 0.96 | 61 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 8.09 | 672 | 321 | 352 | 18 | 0.58 | < 1 | 76 | 21 | 32 | | 0.5 | 0.12 | 1.15 | 51 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.2 | 538 | 295 | 280 | 17 | 0.47 | < 1 | 76 | 21 | 35 | 1.3 | 0.82 | 0.12 | 0.95 | 52 | 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.2 | 681 | 321 | 360 | 19 | 0.39 | < 1 | 87 | 17 | 36 | 1.2 | 1 | 0.16 | 1.13 | 43 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.3 | 759 | 340 | 380 | 21 | 0.5 | < 1 | 89 | 20 | 37 | 1.3 | 0.37 | 0.18 | 1.04 | 71 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 8.1 | 802 | 358 | 410 | 26 | 0.79 | < 1 | 100 | 25 | 39 | 1.4 | 1.6 | 0.15 | 1.49 | 86 | < 0.01 | 0.3 |
| 24-Nov-06 | MAX | 8 | 775 | 335 | 390 | 24 | 0.69 | < 1 | 91 | 23 | 39 | 1.4 | 1.1 | 0.13 | 1.44 | 71 | < 0.01 | 0.3 |
| 12-Apr-07 | Maxx | 8.1 | 887 | 348 | 430 | 35 | 0.91 | < 1 | 100 | 29 | 42 | 1.3 | 1.9 | 0.17 | 1.39 | 95 | < 0.01 | < 0.1 |
| 20-Jun-07 | Maxx | 8.2 | 870 | 353 | 410 | 33 | 0.87 | < 1 | 100 | 28 | 38 | 1.4 | 0.63 | 0.18 | 1.02 | 93 | < 0.01 | < 0.1 |
| 14-Aug-07 | Maxx | 8.4 | 837 | 347 | 430 | 33 | 0.93 | < 1 | 100 | 30 | 41 | 1.5 | 0.95 | 0.17 | 1.26 | 94 | < 0.01 | < 0.1 |
| 15-Nov-07 | Maxx | 8.1 | 765 | 321 | 400 | 26 | 0.72 | < 1 | 96 | 25 | 39 | 1.4 | 1.8 | 0.15 | 1.37 | 64 | < 0.01 | < 0.1 |
| 29-Apr-08 | Maxx | 8.3 | 798 | 325 | 400 | 29 | 0.58 | < 1 | 95 | 20 | 39 | 1.3 | 1.1 | 0.15 | 0.99 | 66 | < 0.01 | 0.1 |
| 17-Jun-08 | Maxx | 8.2 | 849 | 331 | 390 | 31 | 0.68 | < 1 | 93 | 22 | 39 | 1.4 | 0.23 | 0.16 | 1.1 | 76 | < 0.01 | < 0.1 |
| 09-Sep-08 | Maxx | 8.3 | 763 | 322 | 370 | 22 | 0.58 | < 1 | 89 | 22 | 36 | 1.4 | 1.8 | 0.13 | 1.3 | 50 | < 0.01 | < 0.1 |
| 24-Nov-08 | Maxx | 8.1 | 722 | 321 | 360 | 21 | 0.47 | < 1 | 86 | 21 | 35 | 1.9 | 0.58 | 0.11 | 0.99 | 41 | < 0.01 | 0.2 |
| 29-Apr-09 | Maxx | 7.9 | 763 | 335 | 390 | 31 | 0.33 | < 1 | 94 | 17 | 39 | 1.3 | < 0.1 | 0.038 | 0.1 | 47 | < 0.01 | 0.5 |
| 25-Aug-09 | Maxx | 8 | 927 | 354 | 450 | 54 | 0.63 | < 1 | 110 | 27 | 43 | 1.4 | 2.2 | 0.17 | 1.2 | 83 | < 0.01 | < 0.1 |
| 16-Nov-09 | Maxx | 7.9 | 852 | 326 | 440 | 45 | 0.57 | < 1 | 100 | 26 | 43 | 2 | 1.3 | 0.089 | 1 | 61 | < 0.01 | 0.8 |
| 18-May-10 | Maxx | 8.1 | 641 | 286 | 310 | 17 | 0.27 | < 1 | 75 | 13 | 31 | 1.1 | 0.34 | 0.042 | 0.1 | 33 | < 0.01 | 0.6 |
| 25-Oct-10 | Maxx | 8.04 | 666 | 324 | 340 | 12 | 0.17 | < 1 | 81 | 10 | 34 | 1.1 | 1.2 | 0.18 | 0.92 | 26 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 15-V Fill 0.1 - 2.3 m | 11-Apr-05 | Phili | 7.55 | 566 | 276 | 287.5 | 8.2 | 0.061 | < 1 | 88.8 | 5.8 | 15.9 | 2.2 | < 0.03 | 0.023 | 0.12 | 15.3 | < 0.2 | 1.4 |
| | 21-Jun-05 | INV | | | | | | | | | | | | | | | | | |
| | 31-Aug-05 | INV | | | | | | | | | | | | | | | | | |
| | 15-Nov-05 | INV | | | | | | | < | | | | | < | | < | | < | |
| | 15-Nov-05 | INV | | | | | | | | | | | | | | | | | |
| | 15-Nov-05 | MAX | 8.22 | 531 | 285 | 310 | 9 | 0.1 | < 1 | 99 | 10 | 24 | 3.8 | < 0.05 | 0.02 | < 0.05 | 49 | < 0.01 | 0.3 |
| | 15-Nov-05 | MAX | 8.22 | 531 | 285 | 310 | 9 | 0.1 | 1 | 99 | 10 | 24 | 3.8 | 0.05 | 0.02 | 0.05 | 49 | 0.01 | 0.3 |
| | 28-Apr-06 | Maxx | 8.2 | 600 | 301 | 330 | 5 | 0.081 | < 1 | 99 | 8.3 | 21 | 3.2 | < 0.05 | 0.007 | 0.06 | 9 | < 0.01 | 5.6 |
| | 07-Jun-06 | Maxx | 8 | 859 | 501 | 480 | 9 | 0.12 | 8 | 140 | 12 | 30 | 5.1 | 0.3 | 1.1 | 1.11 | 7 | < 0.01 | 0.5 |
| | 30-Aug-06 | MAX | 7.8 | 1200 | 753 | 700 | 16 | 0.19 | < 1 | 210 | 20 | 46 | 8 | 23 | 1.9 | 3.27 | 5 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8 | 732 | 400 | 420 | 6 | 0.12 | < 1 | 130 | 8.9 | 25 | 2.8 | < 0.05 | 0.05 | 0.26 | 21 | < 0.01 | 1.3 |
| | 12-Apr-07 | Maxx | 8.1 | 652 | 320 | 350 | 6 | 0.089 | < 1 | 100 | 7.3 | 22 | 2 | < 0.05 | 0.012 | 0.09 | 17 | < 0.01 | 4 |
| | 20-Jun-07 | Maxx | 8.2 | 980 | 572 | 600 | 12 | 0.16 | < 1 | 180 | 14 | 37 | 5.7 | 1.4 | 0.83 | 2.4 | 4 | < 0.01 | < 0.1 |
| | 14-Aug-07 | INV | | | | | | | | | | | | | | | | | |
| | 15-Nov-07 | INV | | | | | | | | | | | | | | | | | |
| | 29-Apr-08 | Maxx | 8.3 | 686 | 363 | 390 | 9 | 0.14 | < 1 | 120 | 7.8 | 23 | 2 | 0.2 | 0.4 | < 0.05 | 11 | < 0.01 | < 0.1 |
| | 17-Jun-08 | Maxx | 8.2 | 858 | 465 | 450 | 12 | 0.18 | < 1 | 140 | 12 | 27 | 4.9 | 3.5 | 1.5 | 1.3 | 7 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 7.7 | 1230 | 663 | 670 | 13 | 0.26 | < 1 | 200 | 18 | 41 | 7.3 | 6.9 | 1.3 | 2.6 | 18 | < 0.01 | < 0.1 |
| | 24-Nov-08 | INV | | | | | | | | | | | | | | | | | |
| | 29-Apr-09 | Maxx | 7.8 | 549 | 293 | 320 | 4 | 0.14 | 2 | 97 | 5.2 | 20 | 1.4 | < 0.1 | 0.003 | < 0.05 | 14 | < 0.01 | 0.8 |
| | 25-Aug-09 | Maxx | 7.7 | 1060 | 587 | 530 | 17 | 0.15 | 27 | 160 | 14 | 30 | 5.9 | 15 | 1.3 | 4.6 | 2 | < 0.01 | 0.1 |
| | 18-May-10 | Maxx | 8 | 717 | 362 | 400 | 8 | 0.15 | < 1 | 120 | 6.9 | 24 | 2.1 | 0.15 | 0.3 | 0.18 | 17 | < 0.01 | 0.3 |
| | 25-Oct-10 | Maxx | 7.57 | 1170 | 580 | 720 | 18 | 0.54 | < 1 | 220 | 13 | 44 | 2.7 | 2.6 | 1.2 | 1 | 61 | 0.03 | 0.7 |
| **Monitor** 16-I Lower Till 13.0 - 15.1 m | 11-Apr-05 | Phili | 8.14 | 326 | 165 | 104.8 | 2.1 | 0.096 | < 1 | 18.3 | 30 | 14.3 | 1.2 | < 0.03 | < 0.005 | 0.35 | 5.9 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.34 | 310 | 183 | 117 | 1 | 0.095 | < 1 | 21 | 27 | 15 | | 0.2 | 0.019 | < 0.05 | 6 | 0.05 | 0.2 |
| | 28-Apr-06 | Maxx | 8.4 | 328 | 181 | 120 | 4 | 0.087 | < 1 | 19 | 33 | 17 | 1.5 | < 0.05 | 0.003 | 0.06 | 4 | < 0.01 | 0.2 |
| | 30-Aug-06 | MAX | 8.2 | 322 | 180 | 120 | 3 | 0.094 | < 1 | 20 | 31 | 16 | 1.3 | < 0.05 | 0.008 | 0.17 | 8 | < 0.01 | < 0.1 |
| | 12-Apr-07 | Maxx | 8.3 | 338 | 171 | 120 | 4 | 0.096 | < 1 | 19 | 35 | 17 | 1.4 | < 0.05 | 0.004 | 0.17 | 8 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.3 | 332 | 170 | 120 | 5 | 0.11 | < 1 | 19 | 33 | 17 | 1.5 | < 0.05 | 0.007 | 0.08 | 9 | < 0.01 | 0.2 |
| | 29-Apr-08 | Maxx | 8.3 | 330 | 166 | 110 | 3 | 0.1 | < 1 | 18 | 31 | 16 | 1.4 | < 0.1 | 0.003 | 0.07 | 8 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.3 | 334 | 165 | 120 | 2 | 0.09 | < 1 | 19 | 31 | 17 | 1.3 | < 0.1 | 0.007 | < 0.05 | 8 | < 0.01 | 0.1 |
| | 29-Apr-09 | Maxx | 7.7 | 332 | 175 | 120 | 3 | 0.099 | < 1 | 21 | 33 | 18 | 1.4 | < 0.1 | 0.002 | < 0.05 | 9 | < 0.01 | 0.2 |
| | 25-Aug-09 | Maxx | 8.1 | 336 | 173 | 110 | 4 | 0.094 | < 1 | 19 | 31 | 16 | 1.2 | < 0.1 | 0.006 | 0.06 | 11 | < 0.01 | 0.2 |
| | 21-Oct-10 | Maxx | 8.07 | 340 | 167 | 120 | 3 | 0.1 | < 1 | 20 | 30 | 16 | 1.3 | < 0.1 | 0.003 | < 0.05 | 11 | < 0.01 | 0.2 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 16-IV Upper Till 3.8 - 4.4 m | 11-Apr-05 | Phili | 7.26 | 1557 | 580 | 781.2 | 41.1 | 2.01 | < 1 | 198 | 44.2 | 69.2 | 4.7 | 0.64 | 0.15 | 5.44 | 289 | < 0.2 | 1 |
| | 31-Aug-05 | MAX | 7.89 | 1450 | 605 | 834 | 34 | 1.8 | < 1 | 190 | 42 | 71 | | 3.1 | 0.14 | 8 | 285 | 0.01 | 0.3 |
| | 28-Apr-06 | Maxx | 8 | 1510 | 594 | 820 | 42 | 1.8 | < 1 | 200 | 48 | 75 | 5 | 1.9 | 0.15 | 5.88 | 222 | < 0.01 | 0.8 |
| | 30-Aug-06 | N/A | | | | | | | | | | | | | | | | | |
| | 12-Apr-07 | Maxx | 7.9 | 1480 | 559 | 850 | 38 | 1.8 | < 1 | 210 | 48 | 80 | 5.9 | 0.47 | 0.17 | 5.9 | 244 | < 0.01 | 0.6 |
| | 14-Aug-07 | Maxx | 8.2 | 1360 | 538 | 790 | 36 | 1.7 | < 1 | 190 | 45 | 75 | 5.9 | 0.3 | 0.15 | 4.8 | 250 | 0.05 | 0.4 |
| | 29-Apr-08 | Maxx | 8.1 | 1400 | 532 | 750 | 30 | 1.7 | < 1 | 190 | 40 | 69 | 5.5 | 0.74 | 0.14 | 4.4 | 216 | < 0.01 | 1.1 |
| | 09-Sep-08 | Maxx | 8.1 | 1410 | 537 | 740 | 30 | 1.6 | < 1 | 180 | 42 | 68 | 6 | 1.4 | 0.16 | 13 | 211 | < 0.01 | < 0.1 |
| | 29-Apr-09 | Maxx | 7.8 | 1370 | 517 | 750 | 37 | 1.6 | < 1 | 190 | 43 | 70 | 5.5 | 1.8 | 0.15 | 3.8 | 210 | < 0.01 | 1.1 |
| | 22-Jun-09 | Maxx | 8.1 | 896 | 339 | 450 | 53 | 0.51 | < 1 | 110 | 24 | 44 | 1.5 | 0.61 | 0.25 | 1 | 71 | 0.01 | 0.2 |
| | 25-Aug-09 | Maxx | 7.8 | 1370 | 523 | 650 | 36 | 1.5 | < 1 | 170 | 34 | 56 | 4.4 | 2.9 | 0.14 | 7 | 216 | 0.03 | 1 |
| | 18-May-10 | Maxx | 7.9 | 1340 | 480 | 670 | 43 | 1.5 | < 1 | 160 | 40 | 63 | 4.3 | 0.46 | 0.11 | 0.79 | 232 | < 0.01 | 2.9 |
| | 21-Oct-10 | Maxx | 7.63 | 1360 | 504 | 710 | 34 | 1.4 | < 1 | 180 | 40 | 66 | 5.5 | 4.6 | 0.17 | 6.2 | 221 | < 0.01 | 0.6 |
| **Monitor** 16-V Fill 0.3 - 2.4 m | 11-Apr-05 | Phili | 7.1 | 681 | 322 | 366 | 9.1 | 0.306 | < 1 | 109 | 6.3 | 22.6 | 1.5 | < 0.03 | 0.008 | 0.09 | 25 | < 0.2 | 1.1 |
| | 31-Aug-05 | INV | | | | | | | | | | | | | | | | | |
| | 28-Apr-06 | Maxx | 8.1 | 740 | 391 | 430 | 7 | 0.49 | < 1 | 120 | 8 | 30 | 3.5 | < 0.05 | < 0.002 | < 0.05 | 29 | < 0.01 | 2.1 |
| | 30-Aug-06 | MAX | 7.9 | 985 | 484 | 590 | 9 | 1.2 | < 1 | 170 | 12 | 38 | 5.6 | < 0.05 | 0.02 | 0.09 | 124 | < 0.01 | < 0.1 |
| | 12-Apr-07 | Maxx | 7.8 | 735 | 368 | 410 | 7 | 0.39 | < 1 | 120 | 6.5 | 29 | 3.1 | < 0.05 | 0.002 | 0.15 | 30 | < 0.01 | 0.8 |
| | 14-Aug-07 | Dry | | | | | | | | | | | | | | | | | |
| | 29-Apr-08 | Maxx | 8.1 | 662 | 298 | 370 | 4 | 0.45 | < 1 | 110 | 6.7 | 25 | 3.6 | < 0.1 | < 0.002 | < 0.05 | 47 | < 0.01 | 1.4 |
| | 09-Sep-08 | Maxx | 8 | 987 | 422 | 550 | 4 | 1.1 | < 1 | 160 | 9.7 | 37 | 5.5 | < 0.1 | 0.22 | < 0.05 | 117 | < 0.01 | < 0.1 |
| | 29-Apr-09 | Maxx | 7.3 | 694 | 351 | 420 | 5 | 0.31 | < 1 | 120 | 5 | 27 | 3.7 | < 0.1 | < 0.002 | < 0.05 | 22 | < 0.01 | 1.8 |
| | 22-Jun-09 | Maxx | 7.9 | 893 | 495 | 480 | 8 | 0.17 | < 1 | 150 | 8.9 | 28 | 4.1 | 6 | 0.81 | 1.7 | 2 | < 0.01 | < 0.1 |
| | 25-Aug-09 | Maxx | 7.8 | 896 | 430 | 510 | 7 | 0.77 | < 1 | 150 | 7.2 | 30 | 4.4 | < 0.1 | 0.051 | < 0.05 | 92 | < 0.01 | < 0.1 |
| | 18-May-10 | INSV | | | | | | | | | | | | | | | | | |
| | 21-Oct-10 | INSV | | | | | | | | | | | | | | | | | |
| **Monitor** 16-VI Lower Till 19.2 - 17.6 m | 11-Apr-05 | Phili | 8.16 | 313 | 169 | 91.8 | 0.8 | 0.098 | < 1 | 19.6 | 32.5 | 10.4 | 0.8 | 0.12 | 0.012 | 0.46 | 0.5 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.37 | 294 | 182 | 103 | < 1 | 0.11 | < 1 | 21 | 39 | 13 | | 0.12 | 0.012 | 0.45 | 1 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.4 | 313 | 184 | 100 | 1 | 0.098 | < 1 | 21 | 36 | 12 | 0.92 | 0.12 | 0.012 | 0.53 | 1 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.3 | 304 | 181 | 110 | 1 | 0.1 | < 1 | 21 | 46 | 14 | 0.96 | 0.13 | 0.013 | 0.52 | 1 | < 0.01 | < 0.1 |
| | 12-Apr-07 | Maxx | 8.3 | 320 | 173 | 100 | 2 | 0.099 | < 1 | 21 | 39 | 13 | 0.88 | 0.11 | 0.011 | 0.52 | 1 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.4 | 312 | 173 | 100 | 1 | 0.091 | < 1 | 20 | 38 | 13 | 0.93 | 0.12 | 0.012 | 0.48 | 1 | < 0.01 | < 0.1 |
| | 29-Apr-08 | Maxx | 8.4 | 314 | 171 | 97 | 2 | 0.089 | < 1 | 19 | 35 | 12 | 0.83 | 0.14 | 0.012 | 0.45 | 1 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.3 | 307 | 166 | 95 | < 1 | 0.095 | < 1 | 19 | 35 | 12 | 0.85 | 0.11 | 0.012 | 0.37 | 1 | < 0.01 | < 0.1 |
| | 29-Apr-09 | Maxx | 7.7 | 307 | 179 | 100 | 1 | 0.11 | < 1 | 20 | 37 | 12 | 0.82 | 0.12 | 0.012 | 0.41 | 1 | < 0.01 | < 0.1 |
| | 25-Aug-09 | Maxx | 8.2 | 308 | 173 | 88 | 1 | 0.094 | < 1 | 18 | 34 | 10 | 0.79 | 0.11 | 0.012 | 0.45 | 1 | < 0.01 | < 0.1 |
| | 21-Oct-10 | Maxx | 8.17 | 307 | 163 | 95 | < 1 | 0.098 | < 1 | 19 | 36 | 11 | 0.87 | < 0.1 | 0.016 | 0.3 | 1 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 16-VII Bedrock 25.5 - 27.0 m | 11-Apr-05 | Phili | 8.15 | 313 | 159 | 78.7 | 1 | 0.101 | < 1 | 19.2 | 37.7 | 7.47 | 1.9 | < 0.03 | < 0.005 | 0.4 | 0.5 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.31 | 304 | 169 | 83.7 | 6.92 | 0.09 | < 1 | 20.3 | 39.1 | 8.55 | 2 | < 0.05 | 0.003 | 0.37 | 0.5 | < 0.1 | < 0.1 |
| | 31-Aug-05 | MAX | 8.3 | 294 | 179 | 87.4 | 2 | 0.095 | < 1 | 18 | 35 | 7.5 | | 0.65 | 0.025 | 0.39 | 1 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.26 | 269 | 170 | 86 | < 1 | 0.098 | < 1 | 20 | 39 | 8.9 | 1.7 | 0.17 | 0.005 | 0.31 | 1 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 314 | 181 | 88 | 2 | 0.11 | < 1 | 21 | 38 | 8.8 | 1.7 | 0.081 | 0.005 | 0.39 | 1 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.3 | 313 | 178 | 85 | < 1 | 0.099 | < 1 | 20 | 38 | 8.5 | 1.7 | < 0.05 | 0.007 | 0.46 | 1 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.3 | 305 | 181 | 90 | 2 | 0.1 | < 1 | 22 | 38 | 8.8 | 1.3 | < 0.05 | 0.002 | 0.41 | 1 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.3 | 316 | 181 | 81 | 1 | 0.1 | < 1 | 19 | 38 | 8.1 | 1.4 | 0.16 | 0.005 | 0.44 | 1 | < 0.01 | < 0.1 |
| | 13-Apr-07 | Maxx | 8.3 | 317 | 176 | 86 | 2 | 0.097 | < 1 | 20 | 39 | 8.9 | 1.3 | < 0.05 | 0.003 | 0.43 | 1 | < 0.01 | < 0.1 |
| | 20-Jun-07 | Maxx | 8.3 | 314 | 172 | 92 | 2 | 0.1 | < 2 | 22 | 43 | 9.1 | 1.6 | < 0.05 | < 0.002 | 0.45 | 1 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.4 | 313 | 170 | 87 | < 1 | 0.098 | < 1 | 20 | 40 | 8.9 | 1.3 | < 0.05 | 0.002 | 0.39 | 1 | < 0.01 | < 0.1 |
| | 15-Nov-07 | Maxx | 8.2 | 308 | 167 | 93 | 2 | 0.098 | < 1 | 21 | 42 | 9.6 | 1.5 | < 0.1 | 0.006 | 0.41 | 1 | < 0.01 | < 0.1 |
| | 02-May-08 | Maxx | 8.4 | 306 | 168 | 86 | 1 | 0.094 | < 1 | 19 | 42 | 9.1 | 1.5 | < 0.1 | 0.005 | 0.32 | 1 | < 0.01 | < 0.1 |
| | 20-Jun-08 | Maxx | 8.4 | 309 | 167 | 80 | < 1 | 0.11 | < 1 | 19 | 37 | 8 | 1.6 | < 0.1 | < 0.002 | 0.26 | 1 | < 0.01 | < 0.1 |
| | 11-Sep-08 | Maxx | 8.2 | 309 | 164 | 86 | < 1 | 0.099 | < 1 | 20 | 41 | 8.9 | 2 | < 0.1 | 0.002 | 0.24 | 1 | < 0.01 | < 0.1 |
| | 26-Nov-08 | Maxx | 8.3 | 312 | 165 | 87 | 4 | 0.097 | < 1 | 20 | 40 | 9 | 1.5 | < 0.1 | < 0.002 | 0.37 | 1 | < 0.01 | < 0.1 |
| | 29-Apr-09 | Maxx | 7.5 | 308 | 177 | 89 | < 1 | 0.11 | < 1 | 21 | 42 | 8.9 | 1.7 | < 0.1 | 0.002 | 0.29 | 1 | < 0.01 | < 0.1 |
| | 22-Jun-09 | Maxx | 8.2 | 310 | 167 | 85 | 2 | 0.11 | < 1 | 20 | 38 | 8.4 | 1.3 | < 0.1 | 0.003 | 0.4 | 1 | < 0.01 | < 0.1 |
| | 25-Aug-09 | Maxx | 8.2 | 311 | 172 | 79 | 1 | 0.11 | < 1 | 19 | 38 | 7.9 | 1.5 | < 0.1 | 0.002 | 0.38 | 1 | < 0.01 | < 0.1 |
| | 16-Nov-09 | Maxx | 8.2 | 308 | 166 | 89 | 1 | 0.1 | < 1 | 21 | 40 | 8.9 | 1.6 | < 0.1 | 0.003 | 0.39 | 1 | < 0.01 | < 0.1 |
| | 18-May-10 | Maxx | 8.3 | 306 | 162 | 78 | < 1 | 0.098 | < 1 | 19 | 36 | 7.7 | 1.6 | < 0.1 | 0.003 | 0.38 | 1 | < 0.01 | < 0.1 |
| | 25-Oct-10 | Maxx | 8.13 | 306 | 164 | 85 | < 1 | 0.11 | < 1 | 20 | 39 | 8.3 | 1.7 | 0.13 | 0.004 | 0.33 | 1 | < 0.01 | < 0.1 |
| **Monitor** 17-I Bedrock 24.4 - 25.6 m | 11-Apr-05 | Phili | 8.1 | 301 | 159 | 85.8 | 1.2 | 0.086 | < 1 | 20.3 | 31.5 | 8.51 | 0.7 | 0.47 | 0.005 | 0.46 | 0.5 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.28 | 286 | 174 | 92.5 | < 1 | 0.081 | < 1 | 21 | 33 | 9 | | 0.46 | 0.005 | 0.43 | 1 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 295 | 174 | 92 | 2 | 0.077 | < 1 | 22 | 32 | 9.1 | 0.71 | 0.54 | 0.006 | 0.51 | 1 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.3 | 295 | 176 | 97 | < 1 | 0.073 | < 1 | 21 | 39 | 11 | 0.83 | 0.45 | 0.006 | 0.48 | 1 | < 0.01 | < 0.1 |
| | 11-Apr-07 | Maxx | 8.3 | 310 | 168 | 100 | 2 | 0.087 | < 1 | 23 | 39 | 11 | 0.77 | 0.51 | 0.006 | 0.54 | 1 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.3 | 297 | 165 | 98 | 2 | 0.088 | < 1 | 22 | 39 | 11 | 0.88 | 0.56 | 0.006 | 0.47 | 1 | < 0.01 | < 0.1 |
| | 30-Apr-08 | Maxx | 8.4 | 301 | 164 | 90 | 1 | 0.085 | < 1 | 21 | 34 | 9.3 | 0.76 | 0.51 | 0.005 | 0.4 | 1 | < 0.01 | < 0.1 |
| | 11-Sep-08 | Maxx | 8.2 | 298 | 161 | 95 | < 1 | 0.08 | < 1 | 21 | 38 | 10 | 1.2 | 0.5 | 0.006 | 0.37 | 1 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.5 | 299 | 175 | 93 | < 1 | 0.089 | < 1 | 22 | 35 | 9.1 | 0.81 | 0.6 | 0.006 | 0.41 | 1 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 8.2 | 294 | 161 | 90 | 1 | 0.17 | < 1 | 21 | 35 | 9.3 | 0.87 | 0.51 | 0.005 | 0.42 | 1 | < 0.01 | < 0.1 |
| | 27-Oct-10 | Maxx | 8.21 | 302 | 160 | 88 | < 1 | 0.088 | < 1 | 20 | 35 | 9.3 | 0.74 | 0.49 | 0.006 | 0.39 | 1 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 17-II Lower Till 18.6 - 19.2 m | 11-Apr-05 | Phili | 8.21 | 307 | 152 | 93.1 | 1.4 | 0.084 | < 1 | 21.2 | 26.7 | 9.76 | 0.7 | 0.1 | 0.02 | 0.41 | 10.5 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.36 | 291 | 166 | 105 | 2 | 0.074 | 1 | 20 | 28 | 10 | | 0.12 | 0.02 | 0.36 | 10 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 311 | 169 | 100 | 2 | 0.078 | < 1 | 23 | 28 | 11 | 0.84 | 0.14 | 0.024 | 0.45 | 9 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.3 | 303 | 167 | 110 | 2 | 0.066 | < 1 | 23 | 35 | 12 | 0.8 | 0.073 | 0.024 | 0.42 | 10 | < 0.01 | < 0.1 |
| | 11-Apr-07 | Maxx | 8.3 | 317 | 162 | 120 | 2 | 0.088 | < 1 | 25 | 34 | 13 | 0.78 | 0.11 | 0.026 | 0.49 | 12 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.3 | 314 | 157 | 110 | 3 | 0.082 | < 1 | 22 | 30 | 12 | 0.75 | 0.11 | 0.024 | 0.41 | 12 | < 0.01 | < 0.1 |
| | 30-Apr-08 | Maxx | 8.4 | 317 | 158 | 110 | 2 | 0.083 | < 1 | 23 | 31 | 12 | 0.77 | < 0.1 | 0.026 | 0.37 | 10 | < 0.01 | < 0.1 |
| | 11-Sep-08 | Maxx | 8.3 | 314 | 155 | 110 | 1 | 0.087 | < 1 | 23 | 30 | 12 | 1.2 | < 0.1 | 0.022 | 0.31 | 10 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.6 | 321 | 171 | 110 | 2 | 0.089 | < 1 | 25 | 29 | 12 | 0.77 | 0.14 | 0.026 | 0.37 | 12 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 8.2 | 315 | 156 | 100 | 2 | 0.081 | < 1 | 24 | 27 | 11 | 0.56 | 0.1 | 0.024 | 0.33 | 11 | < 0.01 | < 0.1 |
| | 27-Oct-10 | Maxx | 8.13 | 320 | 151 | 110 | 1 | 0.08 | < 1 | 23 | 30 | 12 | 0.76 | < 0.1 | < 0.002 | < 0.05 | 15 | < 0.01 | 0.2 |
| **Monitor** 17-III Upper Till 5.9 - 7.1 m | 11-Apr-05 | Phili | 7.87 | 553 | 272 | 286.5 | 3.5 | 0.013 | < 1 | 64.1 | 4.5 | 30.7 | 1 | < 0.03 | < 0.005 | < 0.03 | 34.5 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | | | | 317 | 1 | 0.011 | < 1 | 72 | 4.9 | 35 | | < 0.05 | < 0.002 | < 0.05 | 33 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | | | | | | | | | | | | | | | | | |
| | 30-Aug-06 | INV | | | | | | | | | | | | | | | | | |
| | 11-Apr-07 | Maxx | 8.3 | 564 | 277 | 330 | 5 | 0.015 | < 1 | 73 | 5.3 | 37 | 1.3 | < 0.05 | < 0.002 | 0.06 | 43 | < 0.01 | < 0.1 |
| | 14-Aug-07 | Maxx | 8.3 | 554 | 276 | 340 | 4 | 0.012 | < 1 | 73 | 6.1 | 38 | 1.4 | < 0.05 | < 0.002 | < 0.05 | 37 | < 0.01 | < 0.1 |
| | 30-Apr-08 | Maxx | 8.4 | 548 | 267 | 310 | 3 | < 0.01 | < 1 | 67 | 5 | 35 | 1.2 | < 0.1 | < 0.002 | < 0.05 | 34 | < 0.01 | < 0.1 |
| | 11-Sep-08 | Maxx | 8.2 | 562 | 278 | 320 | 2 | < 0.01 | < 1 | 70 | 5.6 | 36 | 1.7 | < 0.1 | < 0.002 | < 0.05 | 32 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.9 | 557 | 283 | 320 | 3 | 0.016 | < 1 | 69 | 4.3 | 36 | 1.2 | < 0.1 | < 0.002 | < 0.05 | 34 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 8 | 556 | 287 | 290 | 4 | < 0.01 | < 1 | 68 | 3.4 | 30 | 0.78 | < 0.1 | < 0.002 | < 0.05 | 32 | < 0.01 | < 0.1 |
| | 27-Oct-10 | Maxx | 7.89 | 564 | 268 | 300 | 3 | 0.013 | < 1 | 66 | 4.2 | 33 | 1.1 | 0.22 | 0.027 | < 0.05 | 33 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**
**17-IV**
**Outwash**
**0.5 - 4.2 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.83 | 450 | 240 | 243.9 | 1.7 | 0.005 | < 1 | 57.6 | 1.1 | 24.2 | 0.2 | < 0.03 | < 0.005 | < 0.03 | 7.3 | < 0.2 | < 0.2 |
| 21-Jun-05 | INV | | | | | | | | | | | | | | | | | |
| 31-Aug-05 | INV | | | | | | | | | | | | | | | | | |
| 15-Nov-05 | INV | | | | | | | | | | | | | | | | | |
| 28-Apr-06 | INV | | | | | | | | | | | | | | | | | |
| 07-Jun-06 | INV | | | | | | | | | | | | | | | | | |
| 30-Aug-06 | INV | | | | | | | | | | | | | | | | | |
| 24-Nov-06 | INV | | | | | | < | < | | | | | < | < | | | < | |
| 24-Nov-06 | INV | | | | | | | | | | | | | | | | | |
| 24-Nov-06 | MAX | 8 | 661 | 391 | 410 | 33 | < 0.01 | < 1 | 93 | 2.4 | 42 | 0.2 | < 0.05 | < 0.002 | 0.07 | 37 | < 0.01 | 0.3 |
| 24-Nov-06 | MAX | 8 | 661 | 391 | 410 | 33 | 0.01 | 1 | 93 | 2.4 | 42 | 0.2 | 0.05 | 0.002 | 0.07 | 37 | 0.01 | 0.3 |
| 11-Apr-07 | Maxx | 8.2 | 572 | 318 | 360 | 2 | < 0.01 | < 1 | 80 | 2.4 | 0.05 | < 0.2 | < 0.05 | < 0.002 | 0.09 | 7 | < 0.01 | 0.2 |
| 18-Jun-07 | INV | | | | | | | | | | | | | | | | | |
| 14-Aug-07 | Dry | | | | | | | | | | | | | | | | | |
| 15-Nov-07 | INV | | | | | | | | | | | | | | | | | |
| 30-Apr-08 | Maxx | 8.2 | 436 | 233 | 240 | < 1 | < 0.01 | < 1 | 54 | 2.1 | 25 | < 0.2 | < 0.1 | < 0.002 | < 0.05 | 5 | < 0.01 | 0.6 |
| 18-Jun-08 | INV | | | | | | | | | | | | | | | | | |
| 11-Sep-08 | INV | | | | | | | | | | | | | | | | | |
| 26-Nov-08 | INV | | | | | | | | | | | | | | | | | |
| 30-Apr-09 | Maxx | 7.7 | 501 | 296 | 290 | < 1 | < 0.01 | < 1 | 67 | 1.5 | 31 | < 0.2 | < 0.1 | < 0.002 | < 0.05 | 2 | < 0.01 | 0.1 |
| 26-Jun-09 | Maxx | 7.9 | 552 | 305 | 310 | 1 | < 0.01 | < 1 | 71 | 1.6 | 32 | < 0.2 | < 0.1 | 0.004 | < 0.05 | 3 | < 0.01 | 0.2 |
| 27-Aug-09 | INSV | | | | | | | | | | | | | | | | | |
| 20-May-10 | Maxx | 7.9 | 662 | 329 | 340 | 20 | 0.011 | < 1 | 78 | 2.3 | 36 | 0.33 | < 0.1 | < 0.002 | < 0.05 | 7 | < 0.01 | 0.2 |
| 27-Oct-10 | INVS | | | | | | | | | | | | | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 18-III Outwash 0.1 - 2.9 m | 11-Apr-05 | Phili | 7.19 | 1072 | 230 | 603.7 | 7.3 | 0.098 | < 1 | 187 | 3.4 | 32.8 | 0.4 | 0.07 | 0.055 | 0.04 | 385 | < 0.2 | 3.8 |
| | 21-Jun-05 | MAX | 7.79 | 1380 | 270 | 875 | 7.8 | 0.1 | < 1 | 274 | 4.4 | 44.3 | 0.3 | 0.1 | 0.138 | 0.15 | 594 | < 0.1 | 3.7 |
| | 31-Aug-05 | MAX | 7.95 | 896 | 289 | 564 | 5 | 0.057 | < 1 | 160 | 4.1 | 31 | | < 0.05 | < 0.002 | 0.06 | 209 | < 0.01 | 11 |
| | 15-Nov-05 | MAX | 8.11 | 674 | 279 | 530 | 5 | 0.038 | < 1 | 130 | 4.4 | 31 | 0.38 | < 0.05 | 0.005 | < 0.05 | 119 | 0.04 | 9.5 |
| | 28-Apr-06 | Maxx | 8.1 | 1280 | 224 | 850 | 8 | 0.12 | < 1 | 270 | 5 | 45 | 0.23 | 0.069 | 0.004 | 0.24 | 443 | < 0.01 | 11 |
| | 07-Jun-06 | Maxx | 7.9 | 2360 | 346 | 1700 | 8 | 0.14 | < 1 | 520 | 6.9 | 95 | < 0.2 | 0.068 | 0.65 | 0.08 | 1230 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 7.9 | 943 | 273 | 570 | 6 | 0.086 | < 1 | 180 | 4 | 28 | 0.22 | < 0.05 | 0.008 | 0.07 | 246 | 0.02 | 8.5 |
| | 24-Nov-06 | MAX | 7.9 | 1620 | 303 | 1000 | 7 | 0.15 | < 1 | 320 | 5.6 | 51 | < 0.2 | < 0.05 | 0.017 | 0.15 | 655 | 0.04 | 7.4 |
| | 11-Apr-07 | Maxx | 7.9 | 1420 | 253 | 920 | 7 | 0.11 | 2 | 290 | 5.8 | 0.05 | < 0.2 | 0.068 | 0.004 | 0.11 | 496 | 0.01 | 8.6 |
| | 18-Jun-07 | Maxx | 7.8 | 1820 | 319 | 1300 | 7 | 0.12 | 1 | 430 | 5.6 | 56 | < 0.2 | < 0.05 | 0.012 | 0.49 | 802 | 0.02 | 3.2 |
| | 14-Aug-07 | INV | | | | | | | | | | | | | | | | | |
| | 15-Nov-07 | INV | | | | | | | | | | | | | | | | | |
| | 30-Apr-08 | Maxx | 8.1 | 1970 | 242 | 1300 | 4 | 0.086 | < 1 | 400 | 5.7 | 64 | 0.37 | < 0.1 | 0.14 | 0.07 | 1110 | < 0.01 | 0.2 |
| | 18-Jun-08 | Maxx | 7.9 | 1740 | 273 | 1100 | 4 | 0.093 | < 1 | 350 | 5 | 56 | 0.41 | < 0.1 | 0.15 | 0.12 | 819 | 0.02 | 0.9 |
| | 11-Sep-08 | Maxx | 8 | 1330 | 301 | 750 | 5 | 0.1 | < 1 | 230 | 6.6 | 40 | 0.83 | < 0.1 | 0.071 | < 0.05 | 460 | 0.03 | 1.4 |
| | 26-Nov-08 | Maxx | 7.9 | 2600 | 300 | 1700 | 13 | 0.11 | < 1 | 520 | 14 | 100 | < 0.2 | < 0.1 | 0.008 | 0.12 | 1800 | < 0.01 | 0.4 |
| | 30-Apr-09 | Maxx | 7.4 | 1050 | 252 | 640 | 5 | 0.1 | < 1 | 200 | 3.6 | 33 | 0.33 | 0.15 | < 0.002 | < 0.05 | 315 | 0.02 | 5.5 |
| | 26-Jun-09 | Maxx | 7.7 | 1690 | 278 | 840 | 5 | 0.099 | < 1 | 270 | 4.4 | 43 | 0.36 | < 0.1 | 0.035 | 0.06 | 794 | < 0.01 | 0.7 |
| | 27-Aug-09 | Maxx | 7.7 | 816 | 272 | 580 | 5 | 0.059 | < 1 | 180 | 3.5 | 30 | 0.3 | 0.3 | 0.29 | < 0.05 | 174 | 0.03 | 0.4 |
| | 18-Nov-09 | Maxx | 7.7 | 762 | 324 | 420 | 7 | 0.046 | < 1 | 130 | 3.8 | 25 | 0.4 | 0.43 | 2 | 0.2 | 94 | < 0.01 | < 0.1 |
| | 20-May-10 | Maxx | 7.5 | 2390 | 307 | 1500 | 8 | 0.1 | 2 | 440 | 7.4 | 88 | < 0.2 | < 0.1 | 0.063 | 0.11 | 1310 | < 0.01 | 0.5 |
| | 27-Oct-10 | Maxx | 7.53 | 2200 | 360 | 1400 | 15 | 0.073 | < 1 | 410 | 11 | 85 | 0.23 | < 0.1 | 0.13 | < 0.05 | 963 | < 0.01 | 1 |
| **Monitor** 19-I Bedrock 24.6 - 25.8 m | 11-Apr-05 | Phili | 8.12 | 434 | 224 | 212.7 | 3.4 | 0.034 | < 1 | 36.6 | 9.9 | 29.4 | 0.9 | 0.13 | 0.005 | 0.23 | 17.4 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.2 | 415 | 237 | 225 | 3 | 0.03 | < 1 | 35 | 10 | 30 | | 0.16 | 0.005 | 0.22 | 4 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 442 | 241 | 240 | 3 | 0.028 | < 1 | 40 | 11 | 33 | 1 | 0.2 | 0.005 | 0.26 | 16 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.1 | 436 | 237 | 210 | 3 | 0.024 | < 1 | 37 | 10 | 29 | 0.94 | 0.12 | 0.005 | 0.25 | 18 | < 0.01 | < 0.1 |
| | 11-Apr-07 | Maxx | 8.3 | 452 | 230 | 240 | 4 | 0.033 | < 1 | 39 | 12 | 34 | 0.97 | 0.14 | 0.005 | 0.31 | 19 | < 0.01 | < 0.1 |
| | 15-Aug-07 | Maxx | 8.4 | 437 | 226 | 230 | 3 | 0.033 | < 1 | 39 | 12 | 33 | 2.1 | 0.14 | 0.006 | 0.28 | 20 | < 0.01 | < 0.1 |
| | 01-May-08 | Maxx | 8.4 | 436 | 220 | 220 | 2 | 0.034 | < 1 | 37 | 11 | 32 | 0.98 | 0.15 | 0.005 | 0.21 | 16 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.3 | 435 | 222 | 210 | 2 | 0.029 | < 1 | 36 | 11 | 30 | 0.94 | 0.12 | 0.005 | 0.14 | 15 | < 0.01 | < 0.1 |
| | 01-May-09 | Maxx | 8 | 432 | 229 | 220 | 4 | 0.035 | < 1 | 38 | 11 | 31 | 0.99 | 0.17 | 0.005 | 0.2 | 16 | < 0.01 | < 0.1 |
| | 26-Aug-09 | Maxx | 7.9 | 393 | 202 | 170 | 7 | 0.057 | < 1 | 28 | 15 | 24 | 0.72 | < 0.1 | 0.003 | 0.21 | 12 | < 0.01 | < 0.1 |
| | 26-Oct-10 | Maxx | 8.21 | 441 | 217 | 230 | 4 | 0.035 | < 1 | 38 | 12 | 32 | 0.98 | 0.12 | 0.005 | 0.19 | 17 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 19-II Lower Till 19.8 - 21.0 m | 11-Apr-05 | Phili | 8.26 | 387 | 200 | 187.2 | 2.4 | 0.048 | < 1 | 32.8 | 15.4 | 25.5 | 0.8 | 0.18 | 0.024 | 0.38 | 10.1 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8.26 | 368 | 214 | 187 | 1 | 0.045 | < 1 | 27 | 16 | 24 | | < 0.05 | 0.009 | 0.11 | 2 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 398 | 221 | 190 | 2 | 0.05 | < 1 | 32 | 17 | 27 | 1.1 | < 0.05 | 0.02 | 0.39 | 10 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.2 | 390 | 215 | 180 | 2 | 0.039 | < 1 | 29 | 16 | 25 | 0.93 | < 0.05 | 0.015 | 0.32 | 11 | < 0.01 | < 0.1 |
| | 11-Apr-07 | Maxx | 8.2 | 408 | 205 | 200 | 5 | 0.053 | < 1 | 32 | 20 | 28 | 1.1 | < 0.05 | 0.011 | 0.28 | 11 | < 0.01 | < 0.1 |
| | 15-Aug-07 | Maxx | 8.3 | 377 | 205 | 180 | 3 | 0.056 | < 1 | 29 | 18 | 27 | 1 | < 0.05 | 0.007 | 0.11 | 10 | < 0.01 | 0.1 |
| | 01-May-08 | Maxx | 8.4 | 390 | 205 | 180 | 2 | 0.045 | < 1 | 29 | 18 | 26 | 1.4 | < 0.1 | 0.017 | 0.29 | 9 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.3 | 388 | 201 | 180 | 2 | 0.046 | < 1 | 29 | 18 | 26 | 1.3 | < 0.1 | 0.017 | 0.13 | 8 | < 0.01 | 0.2 |
| | 01-May-09 | Maxx | 8 | 386 | 210 | 190 | 2 | 0.05 | < 1 | 31 | 17 | 28 | 0.99 | 0.11 | 0.019 | 0.23 | 9 | < 0.01 | < 0.1 |
| | 26-Aug-09 | Maxx | 8 | 389 | 209 | 170 | 2 | 0.049 | < 1 | 28 | 16 | 25 | 0.91 | < 0.1 | 0.013 | 0.15 | 10 | < 0.01 | 0.2 |
| | 26-Oct-10 | Maxx | 8.18 | 382 | 195 | 190 | 2 | 0.052 | < 1 | 30 | 18 | 27 | 0.97 | < 0.1 | 0.011 | 0.14 | 10 | < 0.01 | 0.1 |
| **Monitor** 19-IV Upper Till 6.1 - 8.9 m | 11-Apr-05 | Phili | 7.8 | 729 | 360 | 379.5 | 21.8 | 0.006 | < 1 | 96.3 | 9.2 | 33.7 | 0.3 | < 0.03 | < 0.005 | < 0.03 | 25.4 | < 0.2 | < 0.2 |
| | 31-Aug-05 | MAX | 8 | 743 | 404 | 454 | 19 | < 0.01 | < 1 | 120 | 8.9 | 44 | | < 0.05 | < 0.002 | < 0.05 | 38 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 693 | 354 | 380 | 20 | < 0.01 | < 1 | 97 | 11 | 34 | 0.36 | < 0.05 | < 0.002 | < 0.05 | 28 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8 | 770 | 395 | 410 | 20 | < 0.01 | < 1 | 100 | 8.5 | 38 | 0.62 | 0.14 | 0.028 | 0.08 | 36 | < 0.01 | < 0.1 |
| | 11-Apr-07 | Maxx | 8.1 | 724 | 373 | 430 | 15 | < 0.01 | < 1 | 110 | 14 | 41 | 0.39 | < 0.05 | < 0.002 | 0.08 | 24 | < 0.01 | < 0.1 |
| | 13-Aug-07 | Maxx | | | | | | | | | | | | | | | | | |
| | 15-Aug-07 | Maxx | 8.2 | 751 | 400 | 480 | 15 | < 0.01 | < 1 | 110 | 11 | 46 | 0.87 | < 0.05 | < 0.002 | < 0.05 | 30 | < 0.01 | < 0.1 |
| | 01-May-08 | Maxx | 8.3 | 704 | 345 | 380 | 15 | < 0.01 | < 1 | 95 | 11 | 35 | 0.42 | < 0.1 | < 0.002 | < 0.05 | 24 | < 0.01 | < 0.1 |
| | 09-Sep-08 | Maxx | 8.2 | 779 | 393 | 430 | 12 | < 0.01 | < 1 | 100 | 8 | 41 | 0.63 | < 0.1 | 0.042 | < 0.05 | 23 | < 0.01 | < 0.1 |
| | 01-May-09 | Maxx | 7.9 | 716 | 371 | 410 | 13 | < 0.01 | < 1 | 100 | 11 | 39 | 0.37 | < 0.1 | < 0.002 | < 0.05 | 19 | < 0.01 | < 0.1 |
| | 26-Aug-09 | Maxx | 8 | 758 | 392 | 400 | 14 | 0.032 | < 1 | 99 | 8.8 | 38 | 0.54 | < 0.1 | 0.033 | < 0.05 | 29 | < 0.01 | < 0.1 |
| | 26-Oct-10 | Maxx | 7.81 | 791 | 383 | 440 | 16 | < 0.01 | < 1 | 110 | 9.6 | 42 | 0.76 | < 0.1 | 0.006 | < 0.05 | 30 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 26-I Outwash 0.8 - 2.3 m | 11-Apr-05 | N/A | | | | | | | | | | | | | | | | | |
| | 21-Jun-05 | INV | | | | | | | | | | | | | | | | | |
| | 31-Aug-05 | Dry | | | | | | | | | | | | | | | | | |
| | 15-Nov-05 | Dry | | | | | | | | | | | | | | | | | |
| | 28-Apr-06 | INV | | | | | | | | | | | | | | | | | |
| | 28-Apr-06 | INV | | | | | | | | | | | | | | | | | |
| | 28-Apr-06 | N/A | | | | | | | | | | | | | | | | | |
| | 28-Apr-06 | N/A | | | | | | | | | | | | | | | | | |
| | 07-Jun-06 | INV | | | | | | | | | | | | | | | | | |
| | 30-Aug-06 | INV | | | | | | | | | | | | | | | | | |
| | 24-Nov-06 | INV | | | | | | | | | | | | | | | | | |
| | 11-Apr-07 | INV | | | | | | | | | | | | | | | | | |
| | 21-Jun-07 | INV | | | | | | | | | | | | | | | | | |
| | 14-Aug-07 | Dry | | | | | | | | | | | | | | | | | |
| | 13-Nov-07 | INV | | | | | | | | | | | | | | | | | |
| | 06-May-08 | INV | | | | | | | | | | | | | | | | | |
| | 20-Jun-08 | INV | | | | | | | | | | | | | | | | | |
| | 15-Sep-08 | Dry | | | | | | | | | | | | | | | | | |
| | 26-Nov-08 | INV | | | | | | | | | | | | | | | | | |
| | 23-Jun-09 | INV | | | | | | | | | | | | | | | | | |
| | 26-Aug-09 | INSV | | | | | | | | | | | | | | | | | |
| | 18-Nov-09 | INSV | | | | | | | | | | | | | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**
**28-I**
**Outwash**
**0.8 - 2.3 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | INV | | | | | | | | | | | | | | | | | |
| 21-Jun-05 | INV | | | | | | | | | | | | | | | | | |
| 31-Aug-05 | INV | | | | | | | | | | | | | | | | | |
| 15-Nov-05 | INV | | | | | | | | | | | | | | | | | |
| 28-Apr-06 | INV | | | | | | | | | | | | | | | | | |
| 07-Jun-06 | INV | | | | | | | | | | | | | | | | | |
| 30-Aug-06 | INV | | | | | | | | | | | | | | | | | |
| 24-Nov-06 | MAX | 8.1 | 1030 | 229 | 340 | 165 | 0.018 | < 1 | 92 | 72 | 28 | < 0.2 | 0.14 | 0.017 | 0.2 | 50 | < 0.01 | 0.6 |
| 11-Apr-07 | Maxx | 8.2 | 969 | 241 | 380 | 160 | 0.013 | < 1 | 100 | 73 | 33 | 0.25 | 0.21 | 0.014 | 0.16 | 20 | < 0.1 | < 1 |
| 21-Jun-07 | Maxx | 8.2 | 996 | 277 | 380 | 154 | 0.015 | 2 | 100 | 83 | 31 | 0.32 | 0.68 | 0.034 | 0.24 | 19 | < 0.01 | < 0.1 |
| 14-Aug-07 | INV | | | | | | | | | | | | | | | | | |
| 13-Nov-07 | INV | | | | | | | | | | | | | | | | | |
| 06-May-08 | Maxx | 8 | 833 | 133 | 280 | 133 | 0.017 | < 1 | 76 | 58 | 23 | 0.85 | 0.15 | 0.007 | < 0.05 | 67 | 0.03 | 0.3 |
| 20-Jun-08 | Maxx | 8.1 | 1020 | 198 | 380 | 161 | 0.018 | < 1 | 100 | 72 | 31 | 0.5 | 0.4 | 0.028 | < 0.05 | 82 | < 0.01 | < 0.1 |
| 15-Sep-08 | Maxx | 8.1 | 1140 | 250 | 410 | 168 | 0.025 | < 1 | 110 | 70 | 31 | 0.7 | 0.54 | 0.064 | < 0.05 | 82 | < 0.01 | 0.1 |
| 26-Nov-08 | Maxx | 8 | 1040 | 193 | 360 | 159 | 0.023 | < 1 | 94 | 77 | 29 | < 0.2 | 0.13 | 0.015 | 0.07 | 87 | < 0.01 | < 0.1 |
| 29-Apr-09 | Maxx | 7.4 | 768 | 212 | 290 | 102 | 0.043 | < 1 | 77 | 58 | 23 | 0.36 | 0.29 | 0.048 | < 0.05 | 30 | < 0.01 | < 0.1 |
| 23-Jun-09 | Maxx | 8.1 | 820 | 229 | 280 | 110 | 0.017 | < 1 | 71 | 63 | 24 | 0.3 | 0.41 | 0.044 | 0.08 | 28 | < 0.01 | < 0.1 |
| 28-Aug-09 | Maxx | 8.2 | 929 | 309 | 360 | 106 | 0.016 | < 1 | 96 | 71 | 29 | 0.37 | 0.66 | 0.074 | 0.1 | 25 | < 0.01 | < 0.1 |
| 18-Nov-09 | Maxx | 7.9 | 1060 | 393 | 410 | 98 | 0.014 | 4 | 110 | 81 | 35 | 0.31 | 1.4 | 0.074 | 0.16 | 38 | < 0.01 | < 0.1 |
| 20-May-10 | INSV | | | | | | | | | | | | | | | | | |
| 28-Oct-10 | Maxx | 7.31 | 1160 | 203 | 400 | 175 | 0.02 | < 1 | 110 | 83 | 32 | < 0.2 | 0.14 | 0.012 | < 0.05 | 100 | 0.01 | 1.5 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**
**30-I**
**Outwash**
**0.6 - 2.3 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.83 | 1176 | 294 | 488.5 | 183 | 0.01 | < 1 | 131 | 43.1 | 38.9 | 0.7 | 1.21 | 0.177 | 0.2 | 45.1 | < 0.2 | 0.4 |
| 21-Jun-05 | INV | | | | | | | | | | | | | | | | | |
| 31-Aug-05 | INV | | | | | | | | | | | | | | | | | |
| 15-Nov-05 | INV | | | | | | | | | | | | | | | | | |
| 28-Apr-06 | Maxx | 8.3 | 1210 | 319 | 550 | 187 | < 0.01 | < 1 | 140 | 54 | 48 | 0.91 | 0.82 | 0.19 | 0.18 | 45 | 0.03 | 0.4 |
| 07-Jun-06 | INV | | | | | | | | | | | | | | | | | |
| 30-Aug-06 | INV | | | | | | | | | | | | | | | | | |
| 24-Nov-06 | INV | | | | | | | | | | | | | | | | | |
| 24-Nov-06 | INV | | | | | | < | < | | | | | | | | | | |
| 24-Nov-06 | MAX | 8.1 | 1330 | 328 | 520 | 224 | 0.01 | 1 | 130 | 60 | 46 | 0.99 | 0.5 | 0.16 | 0.28 | 48 | 0.02 | 1 |
| 24-Nov-06 | MAX | 8.1 | 1330 | 328 | 520 | 224 | < 0.01 | < 1 | 130 | 60 | 46 | 0.99 | 0.5 | 0.16 | 0.28 | 48 | 0.02 | 1 |
| 11-Apr-07 | INV | | | | | | | | | | | | | | | | | |
| 21-Jun-07 | Maxx | 8.3 | 1340 | 318 | 570 | 229 | < 0.01 | < 1 | 140 | 67 | 52 | 1.1 | 3.8 | 0.12 | 0.24 | 48 | < 0.01 | < 0.1 |
| 14-Aug-07 | INV | | | | | | | | | | | | | | | | | |
| 13-Nov-07 | INV | | | | | | | | | | | | | | | | | |
| 30-Apr-08 | Maxx | | | | | | | | | | | | | | | | | |
| 06-May-08 | Maxx | 8.1 | 1200 | 242 | 480 | 207 | 0.013 | < 1 | 120 | 68 | 41 | 1.3 | 1.7 | 0.11 | 0.12 | 60 | 0.02 | 0.6 |
| 20-Jun-08 | Maxx | 8.2 | 1390 | 281 | 500 | 244 | 0.013 | < 1 | 130 | 73 | 43 | 1.9 | 3.1 | 0.12 | 0.12 | 57 | < 0.01 | 0.4 |
| 15-Sep-08 | Maxx | 8.2 | 1240 | 273 | 470 | 198 | 0.017 | < 1 | 120 | 61 | 39 | 1.4 | 2.7 | 0.11 | 0.16 | 60 | 0.03 | 0.2 |
| 26-Nov-08 | Maxx | 8.2 | 1430 | 312 | 530 | 268 | < 0.01 | 1 | 130 | 80 | 48 | 1.1 | 1.9 | 0.074 | 0.12 | 51 | < 0.01 | < 0.1 |
| 29-Apr-09 | Maxx | 7.3 | 1150 | 286 | 480 | 170 | 0.019 | 6 | 120 | 62 | 44 | 0.99 | 5.9 | 0.11 | 0.37 | 36 | < 0.01 | < 0.1 |
| 23-Jun-09 | Maxx | 8.1 | 1430 | 315 | 510 | 262 | < 0.01 | 23 | 130 | 75 | 47 | 1.3 | 1.5 | 0.06 | 0.16 | 57 | < 0.01 | 0.1 |
| 28-Aug-09 | Maxx | 8 | 1400 | 313 | 540 | 238 | < 0.01 | 13 | 140 | 75 | 48 | 1.1 | 1 | 0.057 | 0.17 | 56 | < 0.01 | < 0.1 |
| 18-Nov-09 | Maxx | 8 | 1020 | 319 | 460 | 108 | 0.011 | 17 | 120 | 50 | 41 | 0.88 | 1.6 | 0.072 | 0.48 | 68 | < 0.01 | < 0.1 |
| 20-May-10 | Maxx | 8 | 875 | 241 | 350 | 134 | 0.014 | 6 | 74 | 40 | 39 | 0.86 | 2.3 | 0.037 | 0.61 | 12 | < 0.01 | 0.1 |
| 28-Oct-10 | Maxx | 8.09 | 876 | 291 | 370 | 104 | 0.011 | 67 | 80 | 46 | 41 | 0.87 | 0.19 | 0.015 | 0.67 | 6 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**
**35-I**
**Outwash**
**0.2 - 1.9 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | | 770 | 378 | 409.1 | 6.3 | 0.028 | < 1 | 115 | 2.3 | 29.1 | 1.4 | 0.35 | 0.036 | 0.05 | 36.9 | < 0.2 | 2.7 |
| 21-Jun-05 | MAX | 8.04 | 771 | 402 | 441 | 3.66 | 0.03 | < 1 | 124 | 2.5 | 30.6 | 1.7 | 0.67 | 0.041 | < 0.05 | 33.6 | < 0.1 | 1.5 |
| 31-Aug-05 | MAX | 8.12 | 733 | 422 | 450 | 3 | 0.033 | < 1 | 120 | 2.7 | 31 | | 1.4 | 0.06 | < 0.05 | 28 | 0.06 | 1 |
| 15-Nov-05 | MAX | 8.06 | 650 | 393 | 360 | 4 | 0.031 | < 1 | 130 | 2.9 | 34 | 1.8 | 0.67 | 0.056 | < 0.05 | 38 | 0.05 | 1.4 |
| 28-Apr-06 | Maxx | 8.2 | 737 | 408 | 440 | 14 | 0.029 | < 1 | 120 | 3.7 | 32 | 1.6 | 0.51 | 0.048 | 0.27 | 28 | 0.02 | 2.2 |
| 07-Jun-06 | Maxx | 8.1 | 754 | 408 | 400 | 11 | 0.024 | < 1 | 110 | 4.1 | 30 | 1.7 | 0.58 | 0.044 | < 0.05 | 29 | 0.03 | 2.6 |
| 30-Aug-06 | MAX | 8.1 | 760 | 419 | 460 | 11 | 0.03 | < 1 | 130 | 5.8 | 35 | 2 | 0.6 | 0.051 | 0.06 | 31 | 0.04 | 1.8 |
| 24-Nov-06 | MAX | 8.2 | 786 | 417 | 410 | 9 | 0.028 | < 1 | 110 | 5.9 | 32 | 1.7 | 0.58 | 0.05 | 0.11 | 32 | 0.02 | 2.3 |
| 11-Apr-07 | Froz | | | | | | | | | | | | | | | | | |
| 18-Jun-07 | Maxx | 8.1 | 264 | 133 | 110 | 5 | 0.018 | 10 | 11 | 3 | 19 | 2.6 | < 0.05 | 0.004 | 0.34 | 8 | < 0.01 | < 0.1 |
| 14-Aug-07 | INV | | | | | | | | | | | | | | | | | |
| 13-Nov-07 | INV | | | | | | | | | | | | | | | | | |
| 30-Apr-08 | Maxx | | | | | | | < | | | | | | | < | | | |
| 30-Apr-08 | Maxx | | | | | | | | | | | | | | | | | |
| 30-Apr-08 | Maxx | 8.3 | 716 | 367 | 410 | 8 | 0.025 | < 1 | 110 | 5 | 32 | 1.7 | 0.34 | 0.053 | < 0.05 | 22 | 0.02 | 1.1 |
| 30-Apr-08 | Maxx | 8.3 | 716 | 367 | 410 | 8 | 0.025 | 1 | 110 | 5 | 32 | 1.7 | 0.34 | 0.053 | 0.05 | 22 | 0.02 | 1.1 |
| 18-Jun-08 | Maxx | 8.4 | 580 | 304 | 300 | 4 | 0.022 | 4 | 64 | 4.1 | 35 | 2.1 | < 0.1 | 0.012 | < 0.05 | 16 | < 0.01 | 0.3 |
| 11-Sep-08 | Maxx | 8.1 | 713 | 371 | 400 | 4 | 0.017 | < 1 | 110 | 5.8 | 31 | 2.3 | 0.73 | 0.051 | < 0.05 | 22 | 0.02 | 0.5 |
| 26-Nov-08 | Maxx | 8.5 | 378 | 198 | 210 | 4 | 0.025 | < 1 | 18 | 3.9 | 41 | 2.2 | < 0.1 | < 0.002 | < 0.5 | 7 | < 0.01 | < 0.1 |
| 01-May-09 | Maxx | 7.7 | 585 | 319 | 280 | 5 | 0.024 | 13 | 47 | 3.7 | 40 | 1.9 | < 0.1 | 0.015 | < 0.05 | 15 | < 0.01 | 0.2 |
| 26-Jun-09 | Maxx | 8.3 | 523 | 279 | 300 | 5 | 0.029 | 16 | 45 | 3.7 | 45 | 2 | 0.13 | 0.02 | < 0.05 | 10 | < 0.01 | < 0.1 |
| 27-Aug-09 | Maxx | 8.2 | 521 | 285 | 270 | 5 | 0.024 | 17 | 47 | 3.2 | 37 | 1.6 | 0.41 | 0.019 | < 0.05 | 3 | < 0.01 | < 0.1 |
| 18-Nov-09 | Maxx | 8.2 | 527 | 286 | 280 | 4 | 0.023 | 6 | 47 | 3.6 | 39 | 2.1 | < 0.1 | 0.011 | 0.24 | 5 | < 0.01 | < 0.1 |
| 20-May-10 | N/A | | | | | | | | | | | | | | | | | |
| 28-Oct-10 | Maxx | 7.83 | 508 | 254 | 300 | 4 | 0.022 | < 1 | 78 | 3.4 | 26 | 1.9 | 0.27 | 0.04 | < 0.05 | 10 | < 0.01 | 0.2 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**37-I**
**Bedrock**
**23.0 - 27.5 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 8.13 | 769 | 122 | 255.6 | 164 | 0.067 | < 1 | 43.4 | 41.5 | 35.7 | 0.9 | 0.14 | 0.006 | 0.38 | 12.4 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 8.2 | 755 | 131 | 258 | 147 | 0.06 | 1 | 45.4 | 43.9 | 39.4 | 1 | 0.11 | 0.006 | 0.41 | 14.4 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 8.07 | 746 | 139 | 282 | 154 | 0.056 | < 1 | 42 | 42 | 36 | | 0.2 | 0.005 | 0.37 | 4 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.06 | 694 | 128 | 280 | 163 | 0.061 | 1 | 46 | 46 | 40 | 0.98 | 0.23 | 0.007 | 0.34 | 15 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.2 | | 142 | 320 | 162 | 0.058 | < 1 | 53 | 51 | 46 | 1.1 | 0.29 | 0.007 | 0.43 | 14 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.1 | 821 | 138 | 300 | 173 | 0.063 | < 1 | 50 | 47 | 43 | 1.1 | 0.24 | 0.007 | 0.39 | 16 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 8.1 | 850 | 137 | 320 | 183 | 0.063 | < 1 | 53 | 54 | 47 | 1.1 | 0.24 | 0.007 | 0.48 | 16 | < 0.01 | 0.2 |
| 24-Nov-06 | MAX | 8.1 | 908 | 135 | 300 | 193 | 0.064 | < 1 | 50 | 48 | 43 | 1 | 0.21 | 0.006 | 0.51 | 16 | < 0.01 | < 0.1 |
| 11-Apr-07 | Maxx | 8.1 | 966 | 133 | 360 | 211 | 0.071 | < 1 | 60 | 56 | 51 | 1.2 | 0.27 | 0.008 | 0.49 | 17 | < 0.01 | < 0.1 |
| 19-Jun-07 | Maxx | 8.1 | 987 | 127 | 340 | 227 | 0.063 | < 1 | 59 | 55 | 48 | 1.2 | 0.25 | 0.007 | 0.51 | 18 | < 0.01 | < 0.1 |
| 14-Aug-07 | Maxx | 8.2 | 971 | 124 | 360 | 229 | 0.072 | < 1 | 57 | 58 | 53 | 1.2 | 0.28 | 0.007 | 0.44 | 16 | < 0.01 | < 0.1 |
| 13-Nov-07 | Maxx | 8.2 | 996 | 125 | 360 | 236 | 0.064 | < 1 | 60 | 58 | 52 | 1.2 | 0.28 | 0.007 | 0.44 | 16 | < 0.01 | < 0.1 |
| 30-Apr-08 | Maxx | 8.1 | 1040 | 122 | 340 | 255 | 0.066 | < 1 | 56 | 55 | 49 | 1.1 | 0.29 | 0.007 | 0.39 | 14 | < 0.01 | < 0.1 |
| 18-Jun-08 | Maxx | 8.2 | 1050 | 122 | 360 | 253 | 0.065 | < 1 | 60 | 59 | 51 | 1.2 | 0.29 | 0.007 | 0.42 | 14 | < 0.01 | < 0.1 |
| 11-Sep-08 | Maxx | 8.1 | 1080 | 121 | 360 | 258 | 0.053 | < 1 | 58 | 58 | 51 | 1.1 | 0.24 | 0.007 | 0.36 | 14 | < 0.01 | < 0.1 |
| 26-Nov-08 | Maxx | 8.1 | 1110 | 124 | 380 | 284 | 0.059 | < 1 | 62 | 60 | 54 | 1.1 | 0.24 | 0.007 | 0.46 | 13 | < 0.01 | < 0.1 |
| 29-Apr-09 | Maxx | 7.5 | 1170 | 129 | 390 | 282 | 0.061 | < 1 | 64 | 65 | 57 | 1.2 | 0.34 | 0.007 | 0.45 | 15 | < 0.01 | < 0.1 |
| 23-Jun-09 | Maxx | 8 | 1210 | 123 | 400 | 309 | 0.066 | < 1 | 65 | 65 | 58 | 1.2 | 1.4 | 0.017 | 0.49 | 17 | < 0.01 | < 0.1 |
| 28-Aug-09 | Maxx | 8 | 1220 | 118 | 400 | 297 | 0.064 | < 1 | 65 | 68 | 58 | 1.1 | 0.3 | 0.007 | 0.45 | 15 | < 0.01 | < 0.1 |
| 18-Nov-09 | Maxx | 8 | 1240 | 113 | 410 | 305 | 0.057 | 1 | 67 | 69 | 58 | 1.2 | 0.29 | 0.007 | 0.43 | 15 | < 0.01 | < 0.1 |
| 19-May-10 | Maxx | 8.1 | 1300 | 99 | 400 | 359 | 0.066 | < 1 | 60 | 72 | 62 | 1.2 | 0.28 | 0.008 | 0.41 | 13 | < 0.01 | < 0.1 |
| 27-Jul-10 | Maxx | 7.7 | 1260 | 81 | 400 | 329 | 0.065 | < 1 | 49 | 78 | 67 | 1.3 | < 0.1 | 0.004 | 0.47 | 8 | < 0.01 | < 0.1 |
| 28-Oct-10 | Maxx | 8.79 | 470 | 28 | 93 | 121 | 0.03 | 2 | 9.6 | 45 | 17 | 1.9 | 0.13 | 0.032 | 0.98 | 1 | < 0.01 | < 0.1 |
| 06-Dec-10 | Maxx | 7.63 | 1020 | 348 | 520 | 97 | < 0.01 | < 1 | 130 | 20 | 48 | 1.1 | < 0.1 | 0.005 | < 0.05 | 45 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**
**50-I**
**Bedrock**
**39.8 - 41.2 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. as CaCO3 mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 8.09 | 562 | 211 | 254.2 | 45.9 | 0.04 | < 1 | 54.8 | 13 | 28.5 | 0.8 | 0.32 | 0.029 | 0.27 | 26.2 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 8.19 | 581 | 212 | 285 | 53 | 0.05 | < 1 | 60.4 | 15.4 | 32.3 | 1.1 | 0.42 | 0.029 | 0.41 | 61 | < 0.3 | < 0.2 |
| 31-Aug-05 | MAX | 8.18 | 555 | 221 | 284 | 46 | 0.042 | < 1 | 62 | 16 | 32 | | 0.33 | 0.028 | 0.28 | 13 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.31 | 499 | 213 | 260 | 45 | 0.041 | < 1 | 55 | 18 | 34 | 0.95 | 0.29 | 0.028 | 0.23 | 25 | < 0.01 | 0.1 |
| 28-Apr-06 | Maxx | 8.3 | 579 | 228 | 280 | 42 | 0.04 | < 1 | 60 | 15 | 32 | 1 | 0.33 | 0.029 | 0.33 | 25 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.2 | 590 | 225 | 280 | 50 | 0.038 | < 1 | 59 | 15 | 33 | 1 | 0.34 | 0.029 | 0.3 | 29 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 8.2 | 572 | 225 | 290 | 48 | 0.037 | < 1 | 61 | 16 | 34 | 0.97 | 0.35 | 0.029 | 0.33 | 27 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8.3 | 593 | 228 | 290 | 46 | 0.037 | < 1 | 62 | 16 | 34 | 1.1 | 0.41 | 0.033 | 0.33 | 27 | < 0.01 | < 0.1 |
| 12-Apr-07 | Maxx | 8.2 | 593 | 217 | 310 | 46 | 0.041 | < 1 | 64 | 17 | 37 | 1.1 | 0.39 | 0.034 | 0.37 | 28 | < 0.01 | < 0.1 |
| 19-Jun-07 | Maxx | 8.2 | 585 | 217 | 260 | 47 | 0.034 | < 1 | 55 | 14 | 28 | 0.94 | 0.38 | 0.028 | 0.31 | 28 | < 0.01 | < 0.1 |
| 16-Aug-07 | Maxx | 8.4 | 603 | 212 | 310 | 59 | 0.048 | < 1 | 62 | 17 | 37 | 1.1 | 0.46 | 0.033 | 0.32 | 30 | < 0.01 | < 0.1 |
| 12-Nov-07 | Maxx | 8.2 | 564 | 206 | 270 | 44 | 0.043 | < 1 | 57 | 17 | 31 | 1 | 0.34 | 0.03 | 0.35 | 23 | < 0.01 | < 0.1 |
| 02-May-08 | Maxx | 8.3 | 643 | 212 | 290 | 58 | 0.035 | < 1 | 61 | 16 | 33 | 1 | 0.39 | 0.036 | 0.29 | 24 | < 0.01 | < 0.1 |
| 18-Jun-08 | Maxx | 8.3 | 641 | 206 | 280 | 60 | 0.04 | < 1 | 57 | 16 | 33 | 0.97 | 0.41 | 0.032 | 0.38 | 23 | < 0.01 | < 0.1 |
| 10-Sep-08 | Maxx | 8.3 | 640 | 204 | 290 | 61 | 0.037 | < 1 | 61 | 18 | 34 | 1.1 | 0.48 | 0.035 | 0.24 | 20 | < 0.01 | < 0.1 |
| 26-Nov-08 | Maxx | 8.2 | 652 | 212 | 290 | 64 | 0.047 | < 1 | 59 | 17 | 35 | 0.99 | 0.41 | 0.032 | 0.31 | 24 | < 0.01 | < 0.1 |
| 01-May-09 | Maxx | 7.8 | 625 | 213 | 300 | 61 | 0.042 | < 1 | 65 | 17 | 33 | 1.1 | 0.46 | 0.04 | 0.26 | 25 | < 0.01 | < 0.1 |
| 22-Jun-09 | Maxx | 8 | 646 | 208 | 290 | 71 | 0.045 | < 1 | 61 | 17 | 34 | 1.1 | 0.44 | 0.035 | 0.31 | 28 | < 0.01 | < 0.1 |
| 27-Aug-09 | Maxx | 7.9 | 627 | 211 | 270 | 63 | 0.048 | < 1 | 59 | 17 | 30 | 0.76 | 0.43 | 0.029 | 0.28 | 24 | < 0.01 | < 0.1 |
| 16-Nov-09 | Maxx | 7.9 | 616 | 199 | 290 | 59 | 0.045 | < 1 | 59 | 20 | 35 | 1.1 | 0.49 | 0.034 | 0.35 | 25 | < 0.01 | < 0.1 |
| 19-May-10 | Maxx | 8.1 | 645 | 198 | 270 | 76 | 0.047 | < 1 | 55 | 18 | 33 | 1 | 0.47 | 0.032 | 0.33 | 27 | < 0.01 | < 0.1 |
| 27-Jul-10 | Maxx | 8 | 575 | 190 | 220 | 58 | 0.061 | < 1 | 47 | 26 | 26 | 0.88 | 0.34 | 0.033 | 0.19 | 21 | < 0.01 | < 0.1 |
| 21-Oct-10 | Maxx | 7.96 | 601 | 195 | 250 | 61 | 0.06 | < 1 | 53 | 22 | 30 | 0.99 | 0.4 | 0.037 | 0.3 | 22 | < 0.01 | < 0.1 |
| 06-Dec-10 | Maxx | 7.99 | 655 | 198 | 290 | 74 | 0.046 | < 1 | 60 | 21 | 35 | 1 | 0.51 | 0.036 | 0.32 | 24 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | | 10 h |
| **Monitor** 53-I Bedrock 21.0 - 22.6 m | 11-Apr-05 | Phili | 7.87 | 416 | 208 | 193.6 | 1.8 | 0.039 | < 1 | 37.2 | 10.4 | 24.4 | 0.8 | 0.55 | < 0.005 | 0.46 | 9 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.24 | 397 | 218 | 202 | 1.36 | 0.06 | 1 | 39.5 | 12 | 25.8 | 1.1 | 0.5 | 0.003 | 0.48 | 8.7 | < 0.1 | < 0.1 |
| | 31-Aug-05 | MAX | 8.17 | 389 | 232 | 213 | 1 | 0.035 | < 1 | 36 | 11 | 25 | | 0.59 | 0.003 | 0.45 | 3 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.2 | 347 | 219 | 190 | 2 | 0.042 | < 1 | 39 | 13 | 29 | 1 | 0.68 | 0.004 | 0.4 | 8 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.4 | 416 | 237 | 210 | 2 | 0.042 | < 1 | 40 | 12 | 27 | 0.98 | 0.58 | 0.004 | 0.66 | 6 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.3 | 416 | 232 | 210 | 2 | 0.039 | < 1 | 40 | 12 | 26 | 0.95 | 0.59 | 0.004 | 0.47 | 10 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.2 | 415 | 233 | 200 | 4 | 0.03 | < 1 | 39 | 11 | 25 | 0.97 | 0.56 | 0.003 | 0.52 | 10 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.1 | 418 | 231 | 200 | 2 | 0.04 | < 1 | 39 | 12 | 26 | 0.89 | 0.6 | 0.003 | 0.7 | 9 | < 0.01 | < 0.1 |
| | 10-Apr-07 | Maxx | 8.3 | 429 | 227 | 230 | 3 | 0.043 | < 1 | 43 | 15 | 31 | 1.1 | 0.61 | 0.003 | 0.57 | 9 | < 0.01 | < 0.1 |
| | 18-Jun-07 | Maxx | 8.4 | 415 | 223 | 210 | 3 | 0.039 | < 1 | 40 | 12 | 26 | 1 | 0.59 | 0.003 | 0.5 | 10 | < 0.01 | < 0.1 |
| | 13-Aug-07 | Maxx | 8.3 | 411 | 223 | 220 | 3 | 0.04 | < 1 | 41 | 13 | 28 | 0.95 | 0.58 | 0.003 | 0.56 | 9 | < 0.01 | < 0.1 |
| | 14-Nov-07 | Maxx | 8.3 | 415 | 219 | 210 | 3 | 0.039 | < 1 | 40 | 12 | 27 | 0.94 | 0.63 | 0.003 | 0.56 | 9 | < 0.01 | < 0.1 |
| | 29-Apr-08 | Maxx | 8.3 | 409 | 218 | 200 | 2 | 0.043 | < 1 | 38 | 12 | 26 | 1 | 0.59 | 0.003 | 0.43 | 8 | < 0.01 | < 0.1 |
| | 17-Jun-08 | Maxx | 8.3 | 406 | 215 | 200 | 2 | 0.038 | < 1 | 38 | 12 | 26 | 1 | 0.58 | 0.004 | 0.41 | 7 | < 0.01 | < 0.1 |
| | 08-Sep-08 | Maxx | 8.3 | 412 | 219 | 200 | 2 | 0.037 | < 1 | 38 | 12 | 26 | 0.96 | 0.61 | 0.003 | 0.42 | 7 | < 0.01 | < 0.1 |
| | 25-Nov-08 | Maxx | 8.3 | 418 | 221 | 210 | 3 | 0.043 | < 1 | 39 | 13 | 28 | 1 | 0.45 | 0.003 | 0.49 | 6 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.9 | 424 | 228 | 220 | 6 | 0.044 | < 1 | 41 | 14 | 28 | 1 | 0.48 | 0.005 | 0.41 | 7 | < 0.01 | < 0.1 |
| | 24-Jun-09 | Maxx | 8 | 432 | 221 | 210 | 6 | 0.035 | < 1 | 39 | 14 | 27 | 0.94 | 0.48 | 0.004 | 0.44 | 9 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 8 | 421 | 228 | 200 | 5 | 0.038 | < 1 | 39 | 12 | 24 | 0.74 | 0.55 | 0.004 | 0.43 | 9 | < 0.01 | < 0.1 |
| | 17-Nov-09 | Maxx | 8 | 421 | 216 | 210 | 4 | 0.037 | < 1 | 39 | 12 | 26 | 0.96 | 0.54 | 0.003 | 0.45 | 8 | < 0.01 | < 0.1 |
| | 17-May-10 | Maxx | 8.2 | 421 | 216 | 220 | 3 | 0.039 | < 1 | 40 | 13 | 28 | 1 | 0.55 | 0.003 | 0.41 | 9 | < 0.01 | < 0.1 |
| | 27-Jul-10 | Maxx | 8 | 421 | 217 | 200 | 3 | 0.041 | < 1 | 38 | 12 | 26 | 0.91 | 0.46 | 0.002 | 0.45 | 8 | < 0.01 | < 0.1 |
| | 26-Oct-10 | Maxx | 8.09 | 422 | 214 | 210 | 3 | 0.044 | < 1 | 39 | 12 | 27 | 0.98 | 0.56 | 0.003 | 0.43 | 8 | < 0.01 | < 0.1 |
| | 06-Dec-10 | Maxx | 8.02 | 420 | 214 | 210 | 3 | 0.039 | < 1 | 39 | 13 | 26 | 0.96 | 0.53 | 0.003 | 0.42 | 8 | < 0.01 | < 0.1 |
| **Monitor** 53-II Lower Till 13.9 - 15.4 m | 11-Apr-05 | Phili | 7.7 | 655 | 214 | 217.5 | 44.6 | 0.127 | < 1 | 62.7 | 54.9 | 14.8 | 2.1 | < 0.03 | < 0.005 | < 0.03 | 49.5 | < 0.2 | 0.3 |
| | 21-Jun-05 | MAX | 8.13 | 449 | 192 | 128 | 16.8 | 0.15 | < 1 | 39.4 | 54.9 | 11.9 | 1.6 | < 0.05 | 0.026 | 0.11 | 19.6 | < 0.1 | 0.5 |
| | 31-Aug-05 | MAX | 8.13 | 465 | 217 | 155 | 18 | 0.14 | < 1 | 37 | 49 | 11 | | < 0.05 | 0.006 | 0.05 | 15 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.32 | 483 | 219 | 180 | 24 | 0.14 | < 1 | 54 | 54 | 12 | 1.6 | < 0.05 | 0.005 | < 0.05 | 30 | < 0.01 | 0.3 |
| | 28-Apr-06 | Maxx | 8.2 | 848 | 250 | 330 | 59 | 0.092 | < 1 | 97 | 55 | 22 | 1.9 | < 0.05 | 0.002 | 0.09 | 45 | < 0.01 | 10 |
| | 07-Jun-06 | Maxx | 8.2 | 793 | 272 | 320 | 66 | 0.098 | < 1 | 95 | 62 | 21 | 1.9 | < 0.05 | 0.005 | < 0.05 | 52 | < 0.01 | 4.4 |
| | 30-Aug-06 | MAX | 8.1 | 653 | 244 | 240 | 42 | 0.14 | < 1 | 67 | 59 | 16 | 1.7 | < 0.05 | 0.042 | < 0.05 | 48 | < 0.01 | 0.3 |
| | 24-Nov-06 | MAX | 8.1 | 711 | 261 | 280 | 38 | 0.13 | < 1 | 83 | 52 | 19 | 1.6 | < 0.05 | 0.055 | 0.18 | 53 | < 0.01 | 3.8 |
| | 10-Apr-07 | Maxx | 8.2 | 679 | 244 | 290 | 38 | 0.11 | 1 | 85 | 46 | 19 | 2 | < 0.05 | 0.013 | 0.13 | 40 | < 0.01 | 3.7 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. as CaCO3 mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 53-IIR Lower Till 13.4 - 15.2 m | 18-Jun-07 | Maxx | 8.2 | 629 | 192 | 210 | 32 | 0.11 | 3 | 55 | 100 | 17 | 3.8 | < 0.05 | 0.087 | 0.85 | 83 | < 0.01 | 0.1 |
| | 13-Aug-07 | Maxx | 8.2 | 475 | 179 | 140 | 29 | 0.11 | < 1 | 36 | 52 | 12 | 2 | < 0.05 | 0.076 | 0.59 | 31 | < 0.01 | < 0.1 |
| | 14-Nov-07 | Maxx | 8.3 | 485 | 180 | 130 | 25 | 0.12 | < 1 | 34 | 51 | 12 | 1.8 | 0.11 | 0.089 | 0.58 | 32 | < 0.01 | < 0.1 |
| | 29-Apr-08 | Maxx | 8.3 | 447 | 172 | 140 | 23 | 0.11 | < 1 | 34 | 48 | 13 | 1.6 | < 0.1 | 0.043 | 0.52 | 18 | 0.03 | < 0.1 |
| | 17-Jun-08 | Maxx | 8.3 | 449 | 175 | 140 | 20 | 0.11 | < 1 | 35 | 50 | 13 | 1.6 | < 0.1 | < 0.002 | 0.11 | 21 | 0.02 | < 0.1 |
| | 08-Sep-08 | Maxx | 8.3 | 460 | 172 | 140 | 27 | 0.096 | < 1 | 34 | 43 | 13 | 1.4 | < 0.1 | 0.004 | < 0.05 | 15 | 0.02 | 0.3 |
| | 25-Nov-08 | Maxx | 8.2 | 450 | 178 | 130 | 21 | 0.11 | < 1 | 32 | 45 | 12 | 1.3 | < 0.1 | 0.096 | 0.51 | 15 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.6 | 460 | 186 | 150 | 31 | 0.11 | < 1 | 38 | 45 | 14 | 1.3 | < 0.1 | < 0.002 | < 0.05 | 15 | < 0.01 | 0.5 |
| | 24-Jun-09 | Maxx | 7.9 | 447 | 175 | 130 | 28 | 0.1 | < 1 | 33 | 46 | 12 | 1.2 | 0.19 | 0.1 | 0.46 | 16 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 8.1 | 437 | 171 | 120 | 26 | 0.11 | < 1 | 31 | 43 | 11 | 1.3 | < 0.1 | 0.086 | 0.42 | 16 | < 0.01 | < 0.1 |
| | 17-Nov-09 | Maxx | 8 | 436 | 168 | 130 | 32 | 0.11 | < 1 | 33 | 44 | 12 | 1.3 | < 0.1 | 0.005 | 0.16 | 18 | 0.01 | 0.2 |
| | 17-May-10 | Maxx | 8.1 | 455 | 171 | 140 | 35 | 0.11 | < 1 | 36 | 45 | 12 | 1.4 | 0.13 | 0.024 | 0.11 | 15 | < 0.01 | < 0.1 |
| | 26-Oct-10 | Maxx | 8.05 | 453 | 180 | 140 | 23 | 0.12 | < 1 | 36 | 46 | 12 | 1.3 | 0.15 | 0.081 | 0.41 | 15 | < 0.01 | < 0.1 |
| **Monitor** 54-I Bedrock 25.9 - 27.4 m | 11-Apr-05 | Phili | 7.97 | 435 | 215 | 195.2 | 2.7 | 0.122 | < 1 | 35.7 | 14.4 | 25.7 | 1.2 | 0.1 | < 0.005 | 0.16 | 16.2 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.2 | 410 | 213 | 207 | 1.46 | 0.08 | < 1 | 35.2 | 10.8 | 26.6 | 1 | 0.15 | 0.003 | 0.19 | 14.6 | < 0.1 | < 0.1 |
| | 31-Aug-05 | MAX | 8.15 | 391 | 227 | 219 | 2 | 0.051 | 2 | 39 | 10 | 31 | | 0.17 | 0.004 | 0.19 | 2 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.15 | 351 | 214 | 200 | 2 | 0.051 | < 1 | 39 | 9.8 | 28 | 1.2 | 0.19 | 0.004 | 0.16 | 16 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.2 | 410 | 230 | 230 | 3 | 0.071 | < 1 | 39 | 13 | 31 | 1.3 | 0.22 | 0.004 | 0.21 | 14 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.2 | 414 | 228 | 220 | 2 | 0.058 | < 1 | 38 | 11 | 30 | 1.2 | 0.14 | 0.004 | 0.19 | 17 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.2 | 415 | 228 | 190 | 3 | 0.047 | < 1 | 33 | 9.1 | 26 | 0.95 | 0.12 | 0.004 | 0.3 | 16 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.3 | 418 | 228 | 220 | 2 | 0.051 | < 1 | 37 | 9.8 | 30 | 1.1 | 0.18 | 0.003 | 0.28 | 16 | < 0.01 | < 0.1 |
| | 10-Apr-07 | Maxx | 8.3 | 433 | 219 | 230 | 4 | 0.059 | < 1 | 39 | 11 | 33 | 1.1 | 0.13 | 0.005 | 0.29 | 17 | < 0.01 | < 0.1 |
| | 18-Jun-07 | Maxx | 8.2 | 437 | 225 | 200 | 5 | 0.083 | < 1 | 38 | 16 | 27 | 1.5 | 0.06 | 0.003 | 0.18 | 19 | < 0.01 | 0.2 |
| | 14-Aug-07 | Maxx | 8.4 | 420 | 216 | 210 | 4 | 0.055 | < 1 | 37 | 9.8 | 30 | 1.1 | 0.16 | 0.004 | 0.22 | 17 | < 0.01 | < 0.1 |
| | 12-Nov-07 | Maxx | 8.3 | 426 | 214 | 200 | 4 | 0.052 | < 1 | 36 | 8.7 | 27 | 0.97 | 0.15 | 0.005 | 0.22 | 17 | < 0.01 | < 0.1 |
| | 01-May-08 | Maxx | 8.4 | 549 | 255 | 250 | 13 | 0.2 | < 1 | 52 | 29 | 28 | 2.6 | < 0.1 | 0.008 | 0.06 | 22 | < 0.01 | < 0.1 |
| | 19-Jun-08 | Maxx | 8.3 | 469 | 232 | 220 | 6 | 0.13 | < 1 | 41 | 24 | 28 | 2 | < 0.1 | 0.01 | < 0.05 | 15 | < 0.01 | < 0.1 |
| | 10-Sep-08 | Maxx | 8.3 | 435 | 221 | 220 | 4 | 0.1 | < 1 | 41 | 16 | 28 | 1.5 | < 0.1 | 0.01 | 0.11 | 15 | < 0.01 | < 0.1 |
| | 25-Nov-08 | Maxx | 8.3 | 451 | 220 | 220 | 5 | 0.082 | < 1 | 40 | 13 | 29 | 1.4 | < 0.1 | 0.01 | 0.17 | 15 | < 0.01 | < 0.1 |
| | 01-May-09 | Maxx | 7.6 | 561 | 245 | 280 | 25 | 0.11 | < 1 | 57 | 17 | 35 | 1.7 | 0.12 | 0.016 | 0.09 | 35 | < 0.01 | < 0.1 |
| | 22-Jun-09 | Maxx | 8.1 | 588 | 240 | 250 | 27 | 0.12 | < 1 | 53 | 28 | 29 | 2.6 | < 0.1 | 0.011 | 0.11 | 35 | < 0.01 | 0.2 |
| | 26-Aug-09 | Maxx | 8 | 472 | 223 | 230 | 11 | 0.078 | < 1 | 46 | 11 | 27 | 1.1 | < 0.1 | 0.01 | 0.13 | 23 | < 0.01 | < 0.1 |
| | 16-Nov-09 | Maxx | 8.1 | 459 | 216 | 230 | 8 | 0.062 | < 1 | 43 | 11 | 30 | 1.2 | < 0.1 | 0.009 | 0.14 | 21 | < 0.01 | < 0.1 |
| | 17-May-10 | Maxx | 8.2 | 452 | 214 | 240 | 8 | 0.067 | < 1 | 43 | 12 | 31 | 1.3 | < 0.1 | 0.01 | 0.11 | 21 | < 0.01 | < 0.1 |
| | 25-Oct-10 | Maxx | 8.03 | 448 | 211 | 220 | 8 | 0.06 | < 1 | 40 | 11 | 28 | 1.1 | < 0.1 | 0.007 | 0.1 | 20 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**
**60-I**
**Lower Till**
**13.3 - 14.8 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 8.24 | 397 | 202 | 165.5 | 1.3 | 0.04 | < 1 | 21.6 | 18.4 | 27.1 | 0.8 | 0.03 | 0.007 | 0.17 | 13.8 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 8.25 | 382 | 207 | 192 | 1.13 | 0.03 | 1 | 23.5 | 19.1 | 32.4 | 1 | < 0.05 | 0.004 | 0.26 | 12.1 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 8.3 | 369 | 218 | 182 | < 1 | 0.041 | < 1 | 20 | 19 | 28 | | < 0.05 | 0.007 | 0.24 | 1 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.18 | 356 | 177 | 170 | < 1 | 0.042 | < 1 | 20 | 24 | 29 | 0.85 | < 0.05 | 0.008 | 0.21 | 44 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.4 | 395 | 220 | 180 | 1 | 0.036 | < 1 | 22 | 21 | 31 | 0.99 | < 0.05 | 0.007 | 0.28 | 12 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.5 | 395 | 221 | 180 | < 1 | 0.037 | < 1 | 22 | 18 | 31 | 0.91 | < 0.05 | 0.006 | 0.18 | 14 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 8.3 | 380 | 217 | 210 | 1 | 0.045 | < 1 | 23 | 25 | 37 | 0.98 | < 0.05 | 0.007 | 0.32 | 13 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8.3 | 403 | 223 | 200 | 1 | 0.041 | < 1 | 24 | 18 | 33 | 0.98 | < 0.05 | 0.006 | 0.24 | 14 | < 0.01 | < 0.1 |
| 10-Apr-07 | Maxx | 8.3 | 408 | 213 | 200 | 2 | 0.043 | < 1 | 24 | 22 | 34 | 1 | < 0.05 | 0.006 | 0.23 | 15 | < 0.01 | < 0.1 |
| 20-Jun-07 | Maxx | 8.3 | 398 | 209 | 180 | 2 | 0.04 | < 2 | 22 | 20 | 30 | 0.99 | < 0.05 | < 0.002 | 0.09 | 16 | < 0.01 | 0.2 |
| 16-Aug-07 | Maxx | 8.3 | 378 | 207 | 180 | 2 | 0.037 | < 1 | 21 | 18 | 31 | 0.91 | < 0.05 | 0.006 | 0.32 | 13 | < 0.01 | < 0.1 |
| 15-Nov-07 | Maxx | 8.4 | 393 | 205 | 190 | 2 | 0.041 | < 1 | 21 | 18 | 32 | 0.92 | < 0.1 | 0.007 | 0.22 | 14 | < 0.01 | < 0.1 |
| 01-May-08 | Maxx | 8.3 | 394 | 206 | 170 | < 1 | 0.043 | < 1 | 20 | 21 | 30 | 0.93 | < 0.1 | 0.005 | 0.18 | 12 | < 0.01 | < 0.1 |
| 19-Jun-08 | Maxx | 8.3 | 386 | 199 | 180 | < 1 | 0.043 | < 1 | 20 | 24 | 30 | 1.8 | < 0.1 | 0.004 | 0.18 | 12 | < 0.01 | < 0.1 |
| 08-Sep-08 | Maxx | 8.3 | 392 | 203 | 170 | < 1 | 0.044 | < 1 | 20 | 23 | 29 | 1.3 | < 0.1 | 0.007 | 0.19 | 11 | < 0.01 | < 0.1 |
| 24-Nov-08 | Maxx | 8.3 | 397 | 204 | 180 | < 1 | 0.04 | < 1 | 21 | 19 | 30 | 0.9 | < 0.1 | < 0.002 | < 0.05 | 12 | < 0.01 | 0.1 |
| 29-Apr-09 | Maxx | 8 | 389 | 208 | 170 | 1 | 0.048 | < 1 | 20 | 24 | 30 | 0.92 | < 0.1 | 0.008 | 0.25 | 12 | < 0.01 | < 0.1 |
| 22-Jun-09 | Maxx | 8.2 | 394 | 203 | 190 | 1 | 0.049 | < 1 | 23 | 22 | 33 | 1 | < 0.1 | < 0.002 | < 0.05 | 15 | < 0.01 | 0.2 |
| 27-Aug-09 | Maxx | 8.2 | 390 | 202 | 150 | < 1 | 0.042 | < 1 | 18 | 23 | 26 | 0.77 | < 0.1 | 0.006 | 0.22 | 13 | < 0.01 | < 0.1 |
| 17-Nov-09 | Maxx | 8.1 | 397 | 200 | 180 | 2 | 0.039 | < 1 | 21 | 21 | 30 | 0.91 | < 0.1 | 0.003 | 0.1 | 15 | < 0.01 | < 0.1 |
| 17-May-10 | Maxx | 8.2 | 397 | 200 | 180 | < 1 | 0.042 | < 1 | 22 | 23 | 32 | 1 | < 0.1 | < 0.002 | < 0.05 | 14 | < 0.01 | 0.1 |
| 27-Oct-10 | Maxx | 8.17 | 396 | 197 | 170 | 1 | 0.038 | < 1 | 20 | 20 | 28 | 0.87 | < 0.1 | 0.002 | < 0.05 | 15 | < 0.01 | 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor**<br>60-II<br>Upper Till<br>10.7 - 12.2 m | 11-Apr-05 | Phili | 8.26 | 460 | 222 | 165.2 | 5.7 | 0.033 | < 1 | 27.8 | 31 | 23.2 | 1.1 | < 0.03 | < 0.005 | 0.03 | 20.4 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.17 | 474 | 235 | 180 | 4.76 | 0.05 | < 1 | 51.2 | 39.3 | 27.4 | 1.2 | 0.77 | 0.067 | < 0.05 | 21.4 | < 0.1 | < 0.1 |
| | 31-Aug-05 | MAX | 8.19 | 462 | 248 | 182 | 5 | 0.041 | < 1 | 150 | 46 | 44 | | 2.7 | 0.3 | < 0.05 | 26 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.28 | 430 | 217 | 180 | 5 | 0.038 | < 1 | 29 | 46 | 28 | 1.3 | < 0.05 | < 0.002 | < 0.05 | 47 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 463 | 244 | 210 | 5 | 0.036 | < 1 | 35 | 35 | 29 | 1.4 | 0.18 | 0.013 | 0.13 | 18 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.3 | 484 | 250 | 170 | 5 | 0.049 | < 1 | 28 | 43 | 25 | 1.3 | < 0.05 | < 0.002 | < 0.05 | 24 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.3 | 474 | 250 | 200 | 6.9 | 0.055 | < 1 | 32 | 51 | 31 | 1.4 | < 0.05 | < 0.002 | 0.08 | 27 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.2 | 495 | 248 | 190 | 6 | 0.052 | < 1 | 31 | 41 | 28 | 1.4 | < 0.05 | < 0.002 | 0.09 | 28 | < 0.01 | < 0.1 |
| | 10-Apr-07 | Maxx | 8.3 | 498 | 235 | 210 | 8 | 0.057 | < 1 | 33 | 40 | 30 | 1.5 | < 0.05 | 0.003 | 0.13 | 25 | < 0.01 | < 0.1 |
| | 20-Jun-07 | Maxx | 8.3 | 488 | 239 | 180 | 7 | 0.059 | < 2 | 30 | 45 | 27 | 1.4 | < 0.05 | < 0.002 | 0.08 | 26 | < 0.01 | < 0.1 |
| | 16-Aug-07 | Maxx | 8.3 | 492 | 234 | 180 | 8 | 0.076 | < 1 | 29 | 47 | 27 | 1.5 | < 0.05 | < 0.002 | < 0.05 | 30 | < 0.01 | < 0.1 |
| | 15-Nov-07 | Maxx | 8.2 | 492 | 233 | 210 | 7 | 0.064 | < 1 | 36 | 42 | 29 | 1.4 | 0.19 | 0.014 | 0.06 | 27 | < 0.01 | < 0.1 |
| | 01-May-08 | Maxx | 8.4 | 463 | 227 | 190 | 5 | 0.055 | < 1 | 30 | 35 | 28 | 1.4 | < 0.1 | < 0.002 | < 0.05 | 20 | < 0.01 | < 0.1 |
| | 19-Jun-08 | Maxx | 8.5 | 484 | 230 | 160 | 5 | 0.081 | < 1 | 26 | 41 | 24 | 1.7 | < 0.1 | < 0.002 | < 0.05 | 23 | < 0.01 | < 0.1 |
| | 08-Sep-08 | Maxx | 8.4 | 483 | 230 | 180 | 5 | 0.073 | < 1 | 29 | 42 | 26 | 1.5 | < 0.1 | < 0.002 | < 0.05 | 21 | < 0.01 | < 0.1 |
| | 24-Nov-08 | Maxx | 8.3 | 479 | 230 | 170 | 5 | 0.083 | < 1 | 26 | 41 | 24 | 1.6 | < 0.1 | < 0.002 | < 0.05 | 20 | < 0.01 | < 0.1 |
| | 29-Apr-09 | Maxx | 7.9 | 461 | 238 | 190 | 7 | 0.07 | < 1 | 29 | 36 | 28 | 1.4 | < 0.1 | 0.007 | < 0.05 | 20 | < 0.01 | < 0.1 |
| | 22-Jun-09 | Maxx | 8.2 | 473 | 228 | 180 | 7 | 0.086 | < 1 | 27 | 40 | 26 | 1.3 | < 0.1 | < 0.002 | < 0.05 | 23 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 8.2 | 475 | 228 | 160 | 8 | 0.095 | < 1 | 28 | 37 | 23 | 0.97 | < 0.1 | < 0.002 | < 0.05 | 23 | < 0.01 | < 0.1 |
| | 17-Nov-09 | Maxx | 8.1 | 470 | 221 | 170 | 7 | 0.093 | < 1 | 28 | 39 | 25 | 1.3 | < 0.1 | < 0.002 | < 0.05 | 22 | < 0.01 | 0.1 |
| | 17-May-10 | Maxx | 8.3 | 460 | 221 | 170 | 6 | 0.072 | < 1 | 27 | 33 | 26 | 1.3 | < 0.1 | < 0.002 | < 0.05 | 21 | < 0.01 | < 0.1 |
| | 27-Oct-10 | Maxx | 8.1 | 458 | 217 | 170 | 7 | 0.08 | < 1 | 28 | 33 | 25 | 1.2 | < 0.1 | < 0.002 | < 0.05 | 16 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**60-III**
**Upper Till**
**0.6 - 5.2**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.79 | 878 | 415 | 378.2 | 32 | 0.014 | < 1 | 111 | 45.4 | 24.2 | 1 | < 0.03 | < 0.005 | < 0.03 | 34.8 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 7.98 | 887 | 387 | 385 | 46 | 0.02 | < 1 | 107 | 56.4 | 32.7 | 1.7 | < 0.05 | 0.009 | 0.07 | 45.7 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 7.99 | 1250 | 448 | 633 | 103 | 0.088 | < 1 | 150 | 56 | 55 | | < 0.05 | 0.003 | < 0.05 | 163 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.09 | 836 | 360 | 390 | 64 | 0.059 | < 1 | 120 | 57 | 39 | 1.9 | < 0.05 | 0.006 | < 0.05 | 77 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.2 | 604 | 323 | 320 | 12 | 0.011 | < 1 | 93 | 26 | 21 | 0.9 | < 0.05 | < 0.002 | < 0.05 | 17 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.2 | 739 | 378 | 360 | 19 | 0.019 | < 1 | 100 | 29 | 26 | 1.2 | < 0.05 | < 0.002 | < 0.05 | 27 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 8.1 | 802 | 445 | 460 | 19 | 0.041 | < 1 | 130 | 34 | 36 | 1.7 | < 0.05 | 0.073 | < 0.05 | 24 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8.1 | 858 | 425 | 470 | 31 | 0.017 | < 1 | 140 | 27 | 29 | 1 | < 0.05 | < 0.002 | 0.13 | 38 | < 0.01 | < 0.1 |
| 10-Apr-07 | Maxx | 8.2 | 697 | 320 | 360 | 27 | 0.014 | < 1 | 100 | 23 | 25 | 1.1 | < 0.05 | < 0.002 | 0.17 | 23 | < 0.01 | 0.2 |
| 20-Jun-07 | Maxx | 8.2 | 1370 | 516 | 660 | 141 | 0.1 | < 2 | 150 | 60 | 71 | 3.6 | 0.24 | 0.19 | 0.88 | 48 | < 0.01 | < 0.1 |
| 16-Aug-07 | Maxx | 8.2 | 1460 | 443 | 790 | 164 | 0.14 | < 1 | 180 | 60 | 86 | 3.5 | < 0.05 | 0.062 | 0.24 | 192 | < 0.01 | 0.1 |
| 15-Nov-07 | Maxx | 8.1 | 866 | 296 | 430 | 66 | 0.024 | < 1 | 130 | 22 | 28 | 1.1 | < 0.1 | 0.38 | 0.09 | 41 | < 0.01 | < 0.1 |
| 01-May-08 | Maxx | 8.3 | 706 | 316 | 370 | 22 | < 0.01 | < 1 | 110 | 19 | 26 | 1.1 | < 0.1 | 0.095 | < 0.05 | 32 | < 0.01 | < 0.1 |
| 19-Jun-08 | Maxx | 8.3 | 972 | 381 | 450 | 62 | 0.055 | < 1 | 120 | 30 | 38 | 2.2 | 0.16 | 0.45 | < 0.05 | 46 | < 0.01 | 0.2 |
| 08-Sep-08 | Maxx | 8.1 | 952 | 445 | 480 | 32 | 0.05 | < 1 | 130 | 26 | 37 | 2.2 | < 0.1 | 0.38 | 0.05 | 30 | < 0.01 | < 0.1 |
| 24-Nov-08 | Maxx | 8.1 | 928 | 386 | 440 | 49 | 0.04 | < 1 | 120 | 29 | 35 | 2.1 | 0.15 | 0.31 | 0.07 | 43 | < 0.01 | 0.1 |
| 29-Apr-09 | Maxx | 7.8 | 1220 | 476 | 600 | 103 | 0.047 | < 1 | 140 | 46 | 57 | 2.4 | 0.37 | 0.56 | 0.44 | 50 | < 0.01 | < 0.1 |
| 22-Jun-09 | Maxx | 7.9 | 1630 | 587 | 770 | 192 | 0.13 | < 1 | 150 | 64 | 97 | 4.7 | 2 | 0.34 | 1.7 | 34 | < 0.01 | < 0.1 |
| 27-Aug-09 | Maxx | 7.8 | 1690 | 594 | 760 | 204 | 0.15 | < 1 | 150 | 62 | 93 | 4.7 | 1.8 | 0.29 | 1.4 | 39 | < 0.01 | < 0.1 |
| 17-Nov-09 | Maxx | 7.7 | 1700 | 561 | 790 | 190 | 0.14 | < 1 | 160 | 64 | 95 | 4.1 | 0.18 | 0.15 | 0.43 | 68 | < 0.01 | < 0.1 |
| 17-May-10 | Maxx | 7.8 | 1150 | 436 | 580 | 98 | 0.041 | < 1 | 140 | 41 | 54 | 2.4 | 0.11 | 0.14 | 0.13 | 57 | < 0.01 | < 0.1 |
| 27-Oct-10 | Maxx | 7.54 | 1240 | 424 | 620 | 104 | 0.084 | < 1 | 140 | 51 | 67 | 3.6 | 2.8 | 0.18 | 0.73 | 87 | < 0.01 | 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**
**90-II**
**bedrock**
**31.4 - 32.9 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 8.02 | 540 | 259 | 277.9 | 9.1 | 0.027 | < 1 | 59.4 | 8.9 | 31.4 | 0.9 | 0.07 | 0.007 | 0.12 | 30 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 8.19 | 487 | 248 | 257 | 3.05 | 0.01 | < 1 | 51.4 | 9.1 | 32.6 | 0.9 | < 0.05 | 0.006 | 0.14 | 23 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 8.15 | 451 | 253 | 259 | 2 | 0.021 | < 1 | 47 | 7.9 | 31 | | 0.059 | 0.006 | 0.13 | 10 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.23 | 391 | 243 | 230 | 3 | 0.024 | < 1 | 48 | 8.8 | 35 | 0.94 | 0.14 | 0.006 | 0.09 | 24 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.3 | 553 | 289 | 310 | 8 | 0.018 | < 1 | 69 | 9.9 | 33 | 0.93 | 0.11 | 0.008 | 0.18 | 29 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.2 | 537 | 286 | 300 | 8 | 0.02 | < 1 | 67 | 10 | 32 | 0.85 | 0.082 | 0.007 | 0.13 | 29 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 8.2 | 518 | 273 | 250 | 8 | 0.02 | < 1 | 51 | 8.8 | 29 | 0.72 | 0.072 | 0.007 | 0.15 | 26 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8.1 | 728 | 328 | 370 | 32 | 0.021 | < 1 | 88 | 9.5 | 36 | 0.9 | 0.071 | 0.01 | 0.16 | 36 | < 0.01 | < 0.1 |
| 12-Apr-07 | Maxx | 8.1 | 798 | 373 | 440 | 19 | 0.018 | < 1 | 120 | 14 | 35 | 0.73 | < 0.05 | 0.014 | 0.11 | 46 | < 0.01 | < 0.1 |
| 21-Jun-07 | Maxx | 8.3 | 723 | 354 | 420 | 16 | 0.018 | < 1 | 110 | 13 | 35 | 0.81 | 0.11 | 0.013 | 0.11 | 43 | < 0.01 | < 0.1 |
| 15-Aug-07 | Maxx | 8.4 | 609 | 302 | 330 | 11 | 0.022 | < 1 | 78 | 11 | 33 | 0.83 | 0.1 | 0.01 | 0.07 | 36 | < 0.01 | < 0.1 |
| 13-Nov-07 | Maxx | 8.2 | 522 | 258 | 290 | 6 | 0.024 | < 1 | 63 | 9.5 | 33 | 0.87 | 0.15 | 0.009 | 0.12 | 29 | < 0.01 | < 0.1 |
| 01-May-08 | Maxx | 8.3 | 675 | 320 | 360 | 11 | < 0.01 | < 1 | 93 | 12 | 30 | 0.75 | < 0.1 | 0.011 | 0.15 | 38 | < 0.01 | < 0.1 |
| 18-Jun-08 | Maxx | 8.2 | 665 | 312 | 370 | 11 | 0.016 | < 1 | 97 | 11 | 32 | 0.85 | 0.15 | 0.01 | 0.07 | 35 | < 0.01 | < 0.1 |
| 10-Sep-08 | Maxx | 8.2 | 725 | 342 | 390 | 14 | 0.022 | < 1 | 100 | 10 | 32 | 0.74 | < 0.1 | 0.01 | < 0.05 | 34 | < 0.01 | < 0.1 |
| 25-Nov-08 | Maxx | 8.2 | 764 | 347 | 410 | 24 | 0.018 | 8 | 100 | 11 | 36 | 0.83 | < 0.1 | 0.008 | 0.05 | 35 | < 0.01 | < 0.1 |
| 01-May-09 | Maxx | 7.8 | 735 | 354 | 400 | 16 | 0.014 | < 1 | 110 | 12 | 31 | 0.58 | < 0.1 | 0.01 | < 0.05 | 39 | < 0.01 | < 0.1 |
| 24-Jun-09 | Maxx | 7.7 | 750 | 351 | 400 | 17 | < 0.01 | < 1 | 110 | 13 | 33 | 0.56 | < 0.1 | 0.01 | < 0.05 | 40 | < 0.01 | < 0.1 |
| 26-Aug-09 | Maxx | 7.9 | 685 | 331 | 350 | 15 | 0.026 | 1 | 92 | 9.8 | 29 | 0.61 | < 0.1 | 0.011 | < 0.05 | 36 | < 0.01 | < 0.1 |
| 16-Nov-09 | Maxx | 7.9 | 604 | 284 | 320 | 9 | 0.016 | < 1 | 78 | 10 | 32 | 0.76 | 0.11 | 0.01 | 0.24 | 32 | < 0.01 | < 0.1 |
| 17-May-10 | Maxx | 8.1 | 772 | 362 | 420 | 21 | < 0.01 | < 1 | 110 | 11 | 33 | 0.6 | < 0.1 | 0.005 | 0.07 | 42 | < 0.01 | < 0.1 |
| 27-Jul-10 | NA | | | | | | | | | | | | | | | | | |
| 25-Oct-10 | Maxx | 7.85 | 763 | 332 | 410 | 31 | 0.013 | < 1 | 110 | 12 | 34 | 0.83 | < 0.1 | 0.011 | < 0.05 | 39 | < 0.01 | < 0.1 |
| 06-Dec-10 | NA | | | | | | | | | | | | | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**
**91-I**
**Bedrock**
**25.5 - 27.0 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.85 | 959 | 242 | 267.6 | 158 | 0.037 | < 1 | 60 | 80.1 | 28.5 | 0.8 | < 0.03 | 0.006 | 0.18 | 17.8 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 8.29 | 611 | 218 | 218 | 69.2 | 0.06 | < 1 | 42.1 | 49.4 | 26.8 | 0.8 | < 0.05 | 0.006 | 0.22 | 15.4 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 8.09 | 486 | 219 | 211 | 32 | 0.04 | 1 | 34 | 30 | 26 | | < 0.05 | 0.005 | 0.2 | 1 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.4 | 478 | 212 | 200 | 45 | 0.037 | < 1 | 38 | 40 | 27 | 0.94 | 0.073 | 0.005 | 0.19 | 14 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.1 | 1060 | 270 | 300 | 167 | 0.039 | < 1 | 68 | 110 | 33 | 1 | < 0.05 | 0.006 | 0.2 | 19 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.2 | 877 | 256 | 260 | 125 | 0.037 | < 1 | 56 | 77 | 28 | 0.92 | < 0.05 | 0.005 | 0.18 | 19 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 0 | 603 | 229 | 210 | 57 | 0.031 | < 1 | 40 | 44 | 26 | 0.85 | < 0.05 | 0.004 | 0.26 | 15 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8.3 | 470 | 213 | 190 | 23 | 0.04 | < 1 | 31 | 26 | 26 | 0.76 | < 0.05 | 0.004 | 0.33 | 13 | < 0.01 | < 0.1 |
| 12-Apr-07 | Maxx | 8.2 | 434 | 203 | 210 | 13 | 0.043 | < 1 | 34 | 24 | 31 | 0.87 | 0.066 | 0.005 | 0.3 | 13 | < 0.01 | < 0.1 |
| 18-Jun-07 | Maxx | 8.2 | 401 | 199 | 200 | 9 | 0.04 | < 1 | 32 | 20 | 28 | 0.88 | 0.051 | 0.004 | 0.29 | 14 | < 0.01 | < 0.1 |
| 15-Aug-07 | Maxx | 8.4 | 403 | 198 | 200 | 9 | 0.04 | < 1 | 31 | 21 | 30 | 0.91 | 0.077 | 0.004 | 0.27 | 15 | < 0.01 | < 0.1 |
| 12-Nov-07 | Maxx | 8.2 | 388 | 193 | 180 | 8 | 0.042 | < 1 | 29 | 19 | 27 | 0.8 | < 0.1 | 0.005 | 0.26 | 11 | < 0.01 | < 0.1 |
| 01-May-08 | Maxx | 8.4 | 952 | 238 | 260 | 149 | 0.036 | < 1 | 55 | 96 | 30 | 1 | < 0.1 | 0.004 | 0.2 | 16 | < 0.01 | < 0.1 |
| 19-Jun-08 | Maxx | 8.3 | 895 | 247 | 230 | 139 | 0.041 | < 1 | 43 | 65 | 29 | 0.96 | < 0.1 | 0.004 | 0.15 | 17 | < 0.01 | < 0.1 |
| 10-Sep-08 | Maxx | 8.3 | 716 | 222 | 220 | 76 | 0.042 | < 1 | 44 | 64 | 28 | 0.91 | < 0.1 | 0.003 | 0.14 | 13 | < 0.01 | < 0.1 |
| 25-Nov-08 | Maxx | 8.2 | 474 | 202 | 180 | 22 | 0.04 | < 1 | 30 | 29 | 26 | 0.73 | < 0.1 | 0.004 | 0.21 | 9 | < 0.01 | < 0.1 |
| 01-May-09 | Maxx | 7.6 | 414 | 213 | 180 | 13 | 0.045 | < 1 | 31 | 21 | 26 | 0.84 | < 0.1 | 0.004 | 0.19 | 12 | < 0.01 | < 0.1 |
| 22-Jun-09 | Maxx | 8.2 | 407 | 198 | 190 | 10 | 0.046 | < 1 | 30 | 21 | 27 | 0.88 | < 0.1 | 0.004 | 0.23 | 12 | < 0.01 | < 0.1 |
| 26-Aug-09 | Maxx | 8.1 | 434 | 224 | 220 | 3 | 0.037 | < 1 | 35 | 11 | 31 | 0.93 | 0.12 | 0.005 | 0.21 | 17 | < 0.01 | < 0.1 |
| 16-Nov-09 | Maxx | 8.1 | 400 | 187 | 190 | 9 | 0.039 | < 1 | 29 | 20 | 27 | 0.83 | < 0.1 | 0.003 | 0.21 | 12 | < 0.01 | < 0.1 |
| 17-May-10 | Maxx | 8.1 | 437 | 194 | 190 | 18 | 0.037 | < 1 | 32 | 23 | 28 | 0.85 | < 0.1 | 0.003 | 0.16 | 16 | < 0.01 | < 0.1 |
| 27-Jul-10 | Maxx | 8.1 | 543 | 204 | 210 | 40 | 0.043 | < 1 | 36 | 39 | 28 | 0.82 | < 0.1 | 0.004 | < 0.05 | 15 | < 0.01 | 0.2 |
| 25-Oct-10 | Maxx | 8.18 | 439 | 195 | 190 | 17 | 0.04 | < 1 | 32 | 23 | 27 | 0.82 | < 0.1 | 0.004 | 0.15 | 14 | < 0.01 | < 0.1 |
| 06-Dec-10 | Maxx | 8.07 | 415 | 191 | 180 | 11 | 0.038 | < 1 | 29 | 21 | 27 | 0.76 | < 0.1 | 0.004 | 0.17 | 13 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 92-I Bedrock 32.0 - 33.5 m | 11-Apr-05 | Phili | 7.87 | 411 | 204 | 193.3 | 1.7 | 0.019 | < 1 | 45.4 | 7.1 | 19.3 | 0.7 | 0.14 | 0.007 | 0.15 | 11.6 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.14 | 391 | 210 | 204 | 1.66 | 0.04 | < 1 | 47.2 | 8.3 | 22.4 | 0.9 | 0.18 | 0.006 | 0.15 | 11.7 | < 0.1 | < 0.1 |
| | 31-Aug-05 | MAX | 8.15 | 381 | 222 | 213 | 2 | 0.016 | < 1 | 42 | 6.9 | 20 | | 0.2 | 0.006 | 0.15 | 11 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.34 | 347 | 214 | 210 | 2 | 0.018 | < 1 | 47 | 7.9 | 23 | 0.83 | 0.19 | 0.007 | 0.09 | 10 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.3 | 407 | 225 | 220 | 2 | 0.012 | < 1 | 49 | 8.2 | 23 | 0.95 | 0.18 | 0.007 | 0.17 | 10 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.3 | 406 | 223 | 210 | 2 | 0.016 | < 1 | 47 | 8.3 | 23 | 0.87 | 0.18 | 0.006 | 0.15 | 12 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.2 | 392 | 222 | 240 | 2 | 0.018 | < 1 | 50 | 10 | 28 | 0.96 | 0.25 | 0.007 | 0.2 | 11 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.2 | 409 | 223 | 210 | 2 | 0.02 | < 1 | 47 | 7.8 | 23 | 0.84 | 0.16 | 0.006 | 0.24 | 11 | < 0.01 | < 0.1 |
| | 12-Apr-07 | Maxx | 8.2 | 417 | 202 | 230 | 2 | 0.02 | < 1 | 51 | 8.3 | 25 | 0.96 | 0.22 | 0.007 | 0.22 | 11 | < 0.01 | < 0.1 |
| | 18-Jun-07 | Maxx | 8.2 | 402 | 213 | 230 | 2 | 0.016 | < 1 | 50 | 8.5 | 24 | 0.97 | 0.16 | 0.006 | 0.19 | 13 | < 0.01 | < 0.1 |
| | 15-Aug-07 | Maxx | 8.3 | 399 | 209 | 220 | 2 | 0.019 | < 1 | 48 | 10 | 24 | 1.1 | 0.19 | 0.007 | 0.28 | 11 | < 0.01 | < 0.1 |
| | 14-Nov-07 | Maxx | 8.2 | 399 | 207 | 190 | < 1 | 0.018 | < 1 | 44 | 7.2 | 20 | 0.82 | 0.18 | 0.006 | 0.16 | 10 | < 0.01 | < 0.1 |
| | 30-Apr-08 | Maxx | 8.4 | 405 | 212 | 210 | < 1 | 0.015 | < 1 | 47 | 9 | 22 | 0.99 | 0.1 | 0.007 | 0.13 | 9 | < 0.01 | < 0.1 |
| | 18-Jun-08 | Maxx | 8.3 | 401 | 206 | 190 | 1 | 0.015 | < 1 | 43 | 8.3 | 21 | 1.2 | 0.12 | 0.006 | 0.44 | 10 | < 0.01 | < 0.1 |
| | 11-Sep-08 | Maxx | 8.2 | 409 | 211 | 210 | < 1 | 0.016 | < 1 | 46 | 10 | 22 | 0.93 | < 0.1 | 0.008 | 0.1 | 10 | < 0.01 | < 0.1 |
| | 26-Nov-08 | Maxx | 8.2 | 417 | 216 | 200 | < 1 | 0.038 | < 1 | 45 | 11 | 21 | 0.91 | < 0.1 | 0.007 | 0.12 | 5 | < 0.01 | < 0.1 |
| | 29-Apr-09 | Maxx | 7.7 | 443 | 243 | 220 | 2 | 0.03 | < 1 | 49 | 14 | 23 | 1.1 | < 0.1 | 0.011 | 0.09 | 12 | < 0.01 | < 0.1 |
| | 23-Jun-09 | Maxx | 8.1 | 423 | 219 | 200 | 2 | 0.025 | 2 | 43 | 15 | 21 | 0.67 | < 0.1 | 0.01 | 0.13 | 12 | < 0.01 | < 0.1 |
| | 28-Aug-09 | Maxx | 7.9 | 423 | 229 | 200 | 3 | 0.022 | < 1 | 47 | 12 | 19 | 0.67 | < 0.1 | 0.009 | 0.05 | 10 | < 0.01 | < 0.1 |
| | 18-Nov-09 | Maxx | 7.9 | 412 | 210 | 200 | 2 | 0.021 | < 1 | 46 | 10 | 21 | 0.87 | < 0.1 | 0.01 | 0.1 | 9 | < 0.01 | < 0.1 |
| | 19-May-10 | Maxx | 8.2 | 406 | 207 | 200 | 1 | 0.023 | < 1 | 45 | 8.6 | 21 | 0.83 | < 0.1 | 0.011 | 0.07 | 10 | < 0.01 | < 0.1 |
| | 20-Oct-10 | Deco | | | | | | | | | | | | | | | | | |
| | 06-Dec-10 | Deco | | | | | | | | | | | | | | | | | |
| **Monitor** 93-I Bedrock 24.6 - 28.7 m | 12-Nov-07 | Maxx | 8.3 | 371 | 188 | 130 | 5 | 0.057 | < 1 | 27 | 28 | 15 | 0.92 | < 0.1 | 0.008 | 0.33 | 8 | < 0.01 | < 0.1 |
| | 30-Apr-08 | Maxx | 8.4 | 357 | 185 | 130 | 2 | 0.054 | < 1 | 28 | 32 | 15 | 0.87 | < 0.1 | 0.006 | 0.3 | 6 | < 0.01 | < 0.1 |
| | 17-Jun-08 | Maxx | 8.3 | 347 | 181 | 120 | 2 | 0.063 | < 1 | 26 | 26 | 13 | 0.83 | < 0.1 | 0.006 | 0.24 | 4 | < 0.01 | < 0.1 |
| | 10-Sep-08 | Maxx | 8.3 | 347 | 182 | 130 | 2 | 0.056 | < 1 | 28 | 27 | 15 | 0.87 | < 0.1 | 0.005 | 0.24 | 3 | < 0.01 | < 0.1 |
| | 26-Nov-08 | Maxx | 8.2 | 354 | 184 | 130 | 2 | 0.053 | < 1 | 27 | 28 | 15 | 0.83 | < 0.1 | 0.004 | 0.29 | 1 | < 0.01 | < 0.1 |
| | 28-Apr-09 | Maxx | 7.8 | 346 | 186 | 140 | 3 | 0.059 | < 1 | 29 | 30 | 16 | 0.91 | < 0.1 | 0.005 | 0.29 | 4 | < 0.01 | < 0.1 |
| | 22-Jun-09 | Maxx | 7.9 | 347 | 182 | 140 | 3 | 0.067 | < 1 | 30 | 30 | 15 | 1 | 0.11 | 0.004 | 0.32 | 3 | < 0.01 | < 0.1 |
| | 25-Aug-09 | Maxx | 8.1 | 351 | 188 | 120 | 4 | 0.065 | < 1 | 28 | 26 | 13 | 0.73 | < 0.1 | 0.005 | 0.28 | 4 | < 0.01 | < 0.1 |
| | 16-Nov-09 | Maxx | 8 | 351 | 180 | 140 | 3 | 0.059 | < 1 | 30 | 30 | 15 | 0.95 | < 0.1 | 0.004 | 0.29 | 4 | < 0.01 | < 0.1 |
| | 18-May-10 | Maxx | 8.1 | 346 | 181 | 120 | 3 | 0.062 | < 1 | 27 | 26 | 13 | 0.83 | 0.1 | 0.004 | 0.29 | 4 | < 0.01 | < 0.1 |
| | 27-Jul-10 | Maxx | 8 | 348 | 179 | 120 | 3 | 0.059 | < 1 | 26 | 30 | 14 | 0.83 | < 0.1 | 0.005 | 0.32 | 3 | < 0.01 | < 0.1 |
| | 20-Oct-10 | Maxx | 8.1 | 347 | 179 | 130 | 3 | 0.067 | < 1 | 28 | 30 | 14 | 0.84 | < 0.1 | 0.005 | 0.26 | 3 | < 0.01 | < 0.1 |
| | 06-Dec-10 | Maxx | 8.07 | 342 | 179 | 130 | 3 | 0.059 | < 1 | 27 | 29 | 14 | 0.84 | < 0.1 | 0.005 | 0.25 | 2 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** 94-I Bedrock 20.6 - 25.2 m | 12-Nov-07 | Maxx | 8.3 | 443 | 204 | 160 | 8 | 0.05 | < 1 | 36 | 28 | 18 | 0.94 | < 0.1 | 0.016 | 0.26 | 24 | 0.03 | 0.3 |
| | 02-May-08 | Maxx | 8.3 | 373 | 182 | 130 | 3 | 0.059 | < 1 | 27 | 34 | 14 | 1 | < 0.1 | 0.008 | 0.18 | 14 | < 0.01 | < 0.1 |
| | 17-Jun-08 | Maxx | 8.3 | 352 | 175 | 110 | 2 | 0.058 | < 1 | 24 | 31 | 13 | 0.9 | < 0.1 | 0.01 | 0.16 | 11 | < 0.01 | < 0.1 |
| | 10-Sep-08 | Maxx | 8.2 | 333 | 171 | 120 | < 1 | 0.057 | < 1 | 24 | 32 | 14 | 0.93 | 0.12 | 0.009 | 0.23 | 7 | < 0.01 | < 0.1 |
| | 25-Nov-08 | Maxx | 8.2 | 335 | 172 | 110 | 1 | 0.056 | < 1 | 23 | 31 | 13 | 0.84 | 0.14 | 0.007 | 0.23 | 5 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 8 | 320 | 172 | 110 | 2 | 0.067 | < 1 | 23 | 31 | 12 | 0.84 | 0.15 | 0.006 | 0.17 | 5 | < 0.01 | < 0.1 |
| | 22-Jun-09 | Maxx | 8.2 | 318 | 168 | 120 | < 1 | 0.071 | < 1 | 24 | 33 | 14 | 0.87 | 0.14 | 0.006 | 0.18 | 4 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 8 | 317 | 175 | 100 | < 1 | 0.051 | < 1 | 22 | 29 | 12 | 0.77 | 0.14 | 0.007 | 0.19 | 4 | < 0.01 | < 0.1 |
| | 17-Nov-09 | Maxx | 8.1 | 316 | 164 | 100 | 1 | 0.062 | < 1 | 20 | 32 | 12 | 0.73 | 0.12 | 0.006 | 0.19 | 5 | < 0.01 | < 0.1 |
| | 18-May-10 | Maxx | 8.2 | 309 | 156 | 83 | < 1 | 0.076 | < 1 | 17 | 35 | 9.8 | 0.72 | < 0.1 | 0.004 | 0.05 | 7 | < 0.01 | < 0.1 |
| | 27-Jul-10 | Maxx | 8.1 | 307 | 157 | 83 | 1 | 0.075 | < 1 | 17 | 37 | 9.8 | 0.71 | < 0.1 | 0.005 | < 0.05 | 6 | < 0.01 | < 0.1 |
| | 20-Oct-10 | Maxx | 8.11 | 310 | 161 | 97 | < 1 | 0.072 | < 1 | 20 | 34 | 12 | 0.66 | < 0.1 | 0.007 | 0.12 | 5 | < 0.01 | < 0.1 |
| | 06-Dec-10 | Maxx | 8.11 | 311 | 164 | 100 | < 1 | 0.064 | < 1 | 21 | 33 | 13 | 0.74 | 0.11 | 0.007 | 0.14 | 4 | < 0.01 | < 0.1 |
| **Monitor** 95-I Bedrock 36.2 - 41.0 m | 12-Nov-07 | Maxx | 8.2 | 774 | 249 | 320 | 69 | 0.019 | < 1 | 72 | 55 | 35 | 2 | < 0.1 | 0.03 | 0.26 | 66 | 0.04 | 0.2 |
| | 02-May-08 | Maxx | 8.2 | 776 | 235 | 340 | 81 | 0.02 | < 1 | 75 | 22 | 38 | 1.5 | 0.16 | 0.023 | 0.2 | 40 | < 0.01 | < 0.1 |
| | 17-Jun-08 | Maxx | 8.4 | 742 | 232 | 350 | 71 | 0.018 | < 1 | 77 | 20 | 39 | 1.5 | 0.15 | 0.026 | 0.14 | 37 | < 0.01 | < 0.1 |
| | 10-Sep-08 | Maxx | 8.2 | 735 | 232 | 340 | 68 | 0.021 | < 1 | 75 | 18 | 38 | 1.4 | 0.13 | 0.022 | 0.13 | 36 | < 0.01 | < 0.1 |
| | 26-Nov-08 | Maxx | 8.2 | 745 | 236 | 340 | 68 | 0.024 | < 1 | 75 | 17 | 38 | 1.3 | 0.19 | 0.021 | 0.17 | 33 | < 0.01 | < 0.1 |
| | 01-May-09 | Maxx | 7.6 | 772 | 243 | 370 | 88 | 0.026 | < 1 | 81 | 17 | 41 | 1.4 | 0.25 | 0.022 | 0.17 | 40 | < 0.01 | < 0.1 |
| | 22-Jun-09 | Maxx | 8 | 765 | 233 | 360 | 88 | 0.02 | < 1 | 78 | 16 | 39 | 1.3 | 0.23 | 0.022 | 0.17 | 41 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 8 | 733 | 229 | 330 | 76 | 0.017 | < 1 | 78 | 14 | 34 | 0.96 | 0.23 | 0.02 | 0.16 | 40 | < 0.01 | < 0.1 |
| | 17-Nov-09 | Maxx | 7.9 | 741 | 231 | 350 | 74 | 0.015 | < 1 | 78 | 15 | 38 | 1.4 | 0.24 | 0.021 | 0.21 | 38 | < 0.01 | < 0.1 |
| | 18-May-10 | Maxx | 8.1 | 790 | 226 | 360 | 102 | 0.02 | < 1 | 79 | 14 | 39 | 1.2 | 0.28 | 0.025 | 0.12 | 44 | < 0.01 | < 0.1 |
| | 27-Jul-10 | Maxx | 7.9 | 791 | 226 | 360 | 90 | 0.02 | < 1 | 79 | 15 | 41 | 1.1 | 0.21 | 0.026 | 0.12 | 39 | < 0.01 | < 0.1 |
| | 21-Oct-10 | Maxx | 7.92 | 760 | 230 | 350 | 82 | 0.017 | < 1 | 77 | 14 | 39 | 1.2 | 0.14 | 0.022 | 0.11 | 39 | < 0.01 | < 0.1 |
| | 06-Dec-10 | Maxx | 7.89 | 784 | 229 | 370 | 100 | 0.018 | < 1 | 82 | 15 | 40 | 1.2 | 0.22 | 0.024 | 0.12 | 44 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

| | | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| | ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| **Monitor** S281 Outwash | 11-Apr-05 | Phili | 7.61 | 1633 | 273 | 533.2 | 367 | 0.018 | < 1 | 127 | 107 | 52.2 | 1.3 | 0.23 | 0.015 | 1.57 | 38.3 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8.03 | 1590 | 275 | 531 | 320 | 0.03 | < 1 | 137 | 116 | 52.9 | 1.5 | 0.24 | 0.011 | 0.18 | 38.4 | < 1 | 0.7 |
| | 31-Aug-05 | MAX | 8.01 | 1430 | 291 | 525 | 291 | 0.02 | < 1 | 130 | 110 | 53 | | 0.23 | 0.013 | < 0.05 | 29 | < 0.01 | 0.4 |
| | 15-Nov-05 | MAX | 8.09 | 1310 | 282 | 480 | 280 | 0.022 | < 1 | 120 | 110 | 53 | 1.6 | 0.22 | 0.019 | < 0.05 | 29 | < 0.01 | 0.5 |
| | 28-Apr-06 | Maxx | 8.1 | 1440 | 303 | 530 | 242 | 0.012 | < 1 | 130 | 100 | 51 | 1.4 | 0.23 | 0.017 | 0.05 | 33 | < 0.01 | 0.4 |
| | 07-Jun-06 | Maxx | 8.2 | 1400 | 292 | 500 | 261 | 0.016 | < 1 | 120 | 97 | 49 | 1.4 | 0.26 | 0.013 | 0.16 | 36 | < 0.01 | 0.5 |
| | 30-Aug-06 | MAX | 8.1 | 1350 | 306 | 500 | 257 | 0.019 | < 1 | 120 | 98 | 48 | 1.4 | 0.25 | 0.013 | 0.06 | 38 | < 0.01 | 0.4 |
| | 24-Nov-06 | MAX | 8.1 | 1380 | 310 | 460 | 249 | 0.02 | < 1 | 110 | 94 | 45 | 1.3 | 0.23 | 0.011 | 0.11 | 37 | < 0.01 | 0.3 |
| | 12-Apr-07 | Maxx | 8.1 | 1360 | 301 | 500 | 232 | 0.017 | < 1 | 120 | 100 | 49 | 1.2 | 0.15 | 0.015 | 0.11 | 39 | < 0.01 | 0.3 |
| | 19-Jun-07 | Maxx | 8.1 | 1330 | 298 | 490 | 236 | 0.016 | < 1 | 120 | 97 | 47 | 1.3 | 0.41 | 0.027 | 0.11 | 39 | < 0.01 | 0.2 |
| | 14-Aug-07 | Maxx | 8.1 | 1300 | 297 | 470 | 256 | 0.023 | < 1 | 110 | 100 | 48 | 1.5 | 0.32 | 0.016 | 0.05 | 37 | < 0.01 | 0.2 |
| | 13-Nov-07 | Deco | | | | | | | | | | | | | | | | | |
| | 02-May-08 | Rem | | | | | | | | | | | | | | | | | |
| | 17-Jun-08 | Gon | | | | | | | | | | | | | | | | | |
| | 09-Sep-08 | Gon | | | | | | | | | | | | | | | | | |
| | 25-Nov-08 | Gon | | | | | | | | | | | | | | | | | |
| **Monitor** C2-I Outwash 7.5 - 9.0 m | 11-Apr-05 | Phili | 7.55 | 1108 | 248 | 454.9 | 130 | 0.019 | < 1 | 119 | 37.1 | 38.2 | 1.1 | 1.8 | 0.042 | 0.26 | 161 | < 0.2 | < 0.2 |
| | 21-Jun-05 | MAX | 8 | 1100 | 251 | 479 | 115 | 0.01 | 1 | 125 | 45 | 45.4 | 1.3 | 2.15 | 0.042 | 0.39 | 152 | < 0.1 | < 0.1 |
| | 31-Aug-05 | MAX | 8.09 | 1050 | 267 | 505 | 120 | 0.018 | < 1 | 120 | 42 | 45 | | 2.1 | 0.039 | 0.3 | 140 | < 0.01 | < 0.1 |
| | 15-Nov-05 | MAX | 8.15 | 958 | 255 | 480 | 120 | 0.017 | < 1 | 120 | 43 | 45 | 1.2 | 2.3 | 0.042 | 0.24 | 158 | < 0.01 | < 0.1 |
| | 28-Apr-06 | Maxx | 8.1 | 1110 | 277 | 480 | 137 | 0.02 | < 1 | 120 | 41 | 41 | 1.2 | 2.3 | 0.042 | 0.33 | 124 | < 0.01 | < 0.1 |
| | 07-Jun-06 | Maxx | 8.2 | 1110 | 275 | 500 | 142 | 0.016 | < 1 | 130 | 49 | 46 | 1.3 | 2.1 | 0.04 | 0.3 | 130 | < 0.01 | < 0.1 |
| | 30-Aug-06 | MAX | 8.1 | 1090 | 284 | 510 | 140 | 0.016 | < 1 | 130 | 48 | 46 | 1.3 | 2.5 | 0.041 | 0.35 | 118 | < 0.01 | < 0.1 |
| | 24-Nov-06 | MAX | 8.1 | 1140 | 283 | 500 | 147 | 0.018 | < 1 | 130 | 47 | 46 | 1.4 | 2.5 | 0.042 | 0.39 | 104 | < 0.01 | < 0.1 |
| | 10-Apr-07 | Maxx | 8.1 | 1170 | 281 | 520 | 158 | 0.019 | < 1 | 130 | 58 | 49 | 1.4 | 2.1 | 0.044 | 0.38 | 106 | < 0.01 | < 0.1 |
| | 18-Jun-07 | Maxx | 8.3 | 1110 | 281 | 520 | 147 | 0.018 | < 1 | 130 | 52 | 47 | 1.4 | 2.4 | 0.041 | 0.38 | 91 | < 0.01 | < 0.1 |
| | 13-Aug-07 | Maxx | 8.1 | 1130 | 269 | 490 | 160 | 0.018 | < 1 | 120 | 55 | 46 | 1.4 | 2.3 | 0.04 | 0.43 | 103 | < 0.01 | < 0.1 |
| | 14-Nov-07 | Maxx | 8.2 | 1160 | 273 | 510 | 156 | 0.02 | < 1 | 130 | 57 | 46 | 1.4 | 2.4 | 0.042 | 0.33 | 91 | < 0.01 | < 0.1 |
| | 29-Apr-08 | Maxx | 8.2 | 1150 | 277 | 500 | 168 | 0.016 | < 1 | 120 | 55 | 47 | 1.4 | 0.11 | 0.041 | 0.31 | 69 | < 0.01 | < 0.1 |
| | 17-Jun-08 | Maxx | 8.3 | 1130 | 291 | 480 | 162 | 0.02 | < 1 | 120 | 55 | 46 | 1.5 | 2.3 | 0.04 | 0.28 | 68 | < 0.01 | < 0.1 |
| | 08-Sep-08 | Maxx | 8.2 | 1120 | 284 | 470 | 148 | 0.016 | < 1 | 120 | 52 | 43 | 1.5 | 2.4 | 0.039 | 0.25 | 60 | < 0.01 | < 0.1 |
| | 25-Nov-08 | Maxx | 8.1 | 1100 | 293 | 450 | 162 | 0.017 | < 1 | 110 | 51 | 42 | 1.3 | 2.1 | 0.036 | 0.36 | 59 | < 0.01 | < 0.1 |
| | 30-Apr-09 | Maxx | 7.5 | 1130 | 297 | 470 | 143 | 0.023 | < 1 | 120 | 57 | 43 | 1.3 | 2.2 | 0.039 | 0.3 | 93 | < 0.01 | < 0.1 |
| | 24-Jun-09 | Maxx | 7.8 | 1150 | 280 | 470 | 147 | 0.014 | < 1 | 110 | 60 | 45 | 1.2 | 2.3 | 0.038 | 0.36 | 104 | < 0.01 | < 0.1 |
| | 27-Aug-09 | Maxx | 7.8 | 1150 | 291 | 450 | 153 | 0.017 | < 1 | 110 | 55 | 41 | 1.3 | 2.3 | 0.037 | 0.36 | 108 | < 0.01 | < 0.1 |
| | 17-Nov-09 | Maxx | 7.9 | 1130 | 274 | 460 | 128 | 0.018 | < 1 | 120 | 56 | 42 | 1.4 | 2.5 | 0.035 | 0.37 | 111 | < 0.01 | < 0.1 |
| | 17-May-10 | Maxx | 8.3 | 1090 | 276 | 460 | 142 | 0.018 | < 1 | 110 | 61 | 42 | 1.4 | 1.9 | 0.035 | 0.35 | 105 | < 0.01 | < 0.1 |
| | 17-May-10 | Maxx | 8.3 | 1090 | 276 | 460 | 142 | 0.018 | 1 | 110 | 61 | 42 | 1.4 | 1.9 | 0.035 | 0.35 | 105 | 0.01 | 0.1 |
| | 17-May-10 | Maxx | | | | | | | < | | | | | | | | | < | |
| | 17-May-10 | Maxx | | | | | | | | | | | | | | | | | |
| | 20-Oct-10 | Maxx | 7.97 | 1030 | 277 | 410 | 112 | 0.023 | 2 | 110 | 52 | 37 | 1.2 | 2.2 | 0.035 | 0.32 | 83 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**

**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**C6-I**
**Outwash**
**10.0 - 11.5 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.36 | 3980 | 357 | 479.7 | 1090 | 0.065 | < 1 | 135 | 643 | 34 | 1.8 | < 0.3 | 0.757 | < 0.03 | 51.4 | < 2 | 1.4 |
| 21-Jun-05 | MAX | 8.09 | 3760 | 366 | 408 | 964 | 0.06 | < 1 | 123 | 591 | 30.3 | 2.3 | < 0.05 | 0.719 | < 0.05 | 53.5 | < 5 | 1.8 |
| 31-Aug-05 | MAX | 8.06 | 3520 | 390 | 434 | 940 | < 0.1 | < 1 | 130 | 680 | 33 | | < 0.5 | 0.69 | < 0.05 | 41 | 0.02 | 1.1 |
| 15-Nov-05 | MAX | 8.08 | 3270 | 367 | 410 | 996 | 0.041 | < 1 | 120 | 630 | 33 | 2.2 | < 0.05 | 0.75 | < 0.05 | 50 | 0.02 | 1.1 |
| 28-Apr-06 | Maxx | 8.1 | 3700 | 397 | 520 | 952 | 0.11 | < 1 | 140 | 700 | 39 | 2.6 | 0.062 | 0.78 | 0.12 | 43 | 0.01 | 0.7 |
| 07-Jun-06 | Maxx | 8.2 | 3880 | 385 | 460 | 1010 | 0.06 | < 1 | 130 | 730 | 33 | 2.3 | 0.064 | 0.73 | 0.07 | 51 | < 0.01 | 1.1 |
| 30-Aug-06 | MAX | 8 | 3700 | 387 | 470 | 1050 | 0.049 | < 1 | 130 | 660 | 34 | 2.3 | < 0.05 | 0.77 | 0.07 | 49 | 0.02 | 0.9 |
| 24-Nov-06 | MAX | 8 | 3540 | 414 | 460 | 951 | 0.12 | < 1 | 130 | 600 | 35 | 2.2 | < 0.05 | 0.83 | 0.13 | 46 | 0.01 | 0.7 |
| 10-Apr-07 | Maxx | 8.1 | 3360 | 401 | 480 | 831 | 0.12 | 1 | 130 | 590 | 39 | 2.5 | < 0.05 | 0.73 | 0.18 | 45 | 0.01 | 0.7 |
| 18-Jun-07 | Maxx | 8.1 | 3110 | 386 | 410 | 779 | 0.061 | < 1 | 110 | 510 | 29 | 2.2 | 0.061 | 0.65 | 0.17 | 44 | 0.02 | 0.7 |
| 13-Aug-07 | Maxx | 8.2 | 2940 | 394 | 400 | 813 | 0.087 | < 1 | 110 | 550 | 32 | 2.1 | 0.086 | 0.65 | 0.21 | 43 | 0.01 | 0.6 |
| 13-Nov-07 | Maxx | 8.2 | 2990 | 399 | 420 | 811 | 0.095 | < 1 | 120 | 510 | 32 | 2.2 | < 0.1 | 0.74 | 0.12 | 39 | 0.01 | 0.5 |
| 29-Apr-08 | Maxx | 8.2 | 2950 | 404 | 460 | 875 | 0.15 | < 1 | 120 | 430 | 35 | 2.3 | < 0.1 | 0.76 | 0.14 | 37 | < 0.01 | 0.4 |
| 17-Jun-08 | Maxx | 8.3 | 3080 | 372 | 410 | 710 | 0.059 | < 1 | 110 | 510 | 32 | 2.6 | < 0.1 | 0.66 | < 0.05 | 38 | 0.01 | 0.4 |
| 08-Sep-08 | Maxx | 8.2 | 3100 | 372 | 400 | 704 | 0.04 | < 1 | 110 | 510 | 31 | 2 | < 0.1 | 0.68 | < 0.05 | 37 | 0.01 | 0.3 |
| 24-Nov-08 | Maxx | 8.2 | 3070 | 390 | 420 | 905 | 0.083 | < 1 | 120 | 470 | 33 | 2.4 | < 0.1 | 0.76 | 0.05 | 36 | < 0.01 | 0.1 |
| 29-Apr-09 | Maxx | 7.7 | 3160 | 413 | 580 | 754 | 0.26 | < 1 | 150 | 430 | 49 | 2.4 | 0.46 | 0.87 | 0.15 | 36 | < 0.01 | 0.2 |
| 24-Jun-09 | Maxx | 7.9 | 3570 | 348 | 530 | 976 | 0.067 | < 1 | 140 | 490 | 42 | 2.2 | 0.16 | 0.82 | 0.06 | 44 | 0.01 | 0.4 |
| 25-Aug-09 | Maxx | 7.9 | 3570 | 357 | 500 | 982 | 0.078 | < 1 | 140 | 540 | 38 | 2.2 | < 0.1 | 0.82 | < 0.05 | 43 | < 0.01 | 0.3 |
| 16-Nov-09 | Maxx | 7.9 | 3620 | 343 | 550 | 920 | 0.051 | < 1 | 150 | 570 | 43 | 2.3 | < 0.1 | 0.83 | < 0.05 | 41 | < 0.01 | 0.2 |
| 18-May-10 | Maxx | 7.7 | 3510 | 366 | 580 | 919 | 0.15 | < 1 | 160 | 540 | 46 | 2.3 | 0.5 | 0.82 | < 0.05 | 44 | 0.01 | 0.1 |
| 20-Oct-10 | Maxx | 7.9 | 3720 | 357 | 640 | 912 | 0.14 | 1 | 180 | 580 | 50 | 2.5 | 0.24 | 0.96 | < 0.05 | 41 | < 0.01 | 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**C9-I**
**Outwash**
**5.8 - 7.3 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. mg/L | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.41 | 907 | 357 | 399.7 | 36.4 | 1.03 | < 1 | 114 | 35.8 | 27.4 | 0.9 | 2.19 | 0.078 | 1.88 | 104 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 8.09 | 913 | 376 | 426 | 38.3 | 0.97 | < 1 | 126 | 37.2 | 29.3 | 1.1 | 2.82 | 0.084 | 2.07 | 104 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 8.01 | 871 | 401 | 445 | 27 | 0.87 | < 1 | 120 | 35 | 30 | | 2 | 0.087 | 1.69 | 94 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.11 | 806 | 380 | 420 | 31 | 0.96 | < 1 | 120 | 39 | 31 | 1.1 | 3.5 | 0.083 | 1.99 | 93 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.1 | 940 | 424 | 480 | 34 | 0.99 | < 1 | 140 | 38 | 33 | 1.2 | 0.3 | 0.097 | 2.25 | 91 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8 | 967 | 427 | 440 | 32 | 0.85 | < 1 | 120 | 37 | 32 | 1.1 | 1.4 | 0.083 | 1.93 | 90 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 7.9 | 930 | 446 | 510 | 32 | 0.94 | < 1 | 140 | 39 | 36 | 1.2 | 4.2 | 0.091 | 2.29 | 88 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8.1 | 988 | 444 | 490 | 31 | 0.91 | < 1 | 130 | 34 | 36 | 1.2 | 3.9 | 0.087 | 2.22 | 88 | < 0.01 | < 0.1 |
| 10-Apr-07 | Maxx | 8.1 | 1010 | 410 | 510 | 33 | 0.89 | 3 | 150 | 35 | 35 | 1.3 | 4.1 | 0.098 | 2.29 | 99 | < 0.01 | < 0.1 |
| 18-Jun-07 | Maxx | 8.1 | 962 | 408 | 510 | 34 | 0.83 | < 1 | 140 | 36 | 37 | 1.3 | 3.8 | 0.098 | 2.3 | 103 | < 0.01 | < 0.1 |
| 13-Aug-07 | Maxx | 8.2 | 939 | 376 | 500 | 35 | 0.83 | < 1 | 140 | 34 | 37 | 1.3 | 4 | 0.095 | 2.34 | 123 | < 0.01 | < 0.1 |
| 13-Nov-07 | Maxx | 8.2 | 940 | 364 | 480 | 33 | 0.82 | < 1 | 140 | 31 | 34 | 1.2 | 3.6 | 0.097 | 2.2 | 116 | < 0.01 | < 0.1 |
| 29-Apr-08 | Maxx | 8.1 | 999 | 377 | 490 | 34 | 0.85 | < 1 | 140 | 34 | 35 | 1.2 | 3.5 | 0.094 | 2.2 | 113 | < 0.01 | < 0.1 |
| 17-Jun-08 | Maxx | 8.2 | 971 | 379 | 450 | 32 | 0.79 | < 1 | 130 | 28 | 32 | 1.3 | < 0.1 | 0.081 | 2.1 | 113 | < 0.01 | < 0.1 |
| 08-Sep-08 | Maxx | 8.1 | 957 | 367 | 470 | 27 | 0.72 | < 1 | 130 | 29 | 34 | 1.2 | 4.1 | 0.093 | 2 | 104 | < 0.01 | < 0.1 |
| 24-Nov-08 | Maxx | 8.1 | 953 | 371 | 460 | 28 | 0.7 | < 1 | 130 | 29 | 33 | 1.6 | 0.29 | 0.081 | 1.1 | 99 | < 0.01 | 0.8 |
| 29-Apr-09 | Maxx | 7.8 | 976 | 403 | 520 | 34 | 0.83 | < 1 | 150 | 30 | 37 | 1.3 | 1.8 | 0.1 | 2.2 | 96 | < 0.01 | 0.1 |
| 23-Jun-09 | Maxx | 8 | 989 | 414 | 490 | 35 | 0.72 | < 1 | 140 | 27 | 35 | 1.2 | 5 | 0.098 | 2.4 | 94 | < 0.01 | < 0.1 |
| 25-Aug-09 | Maxx | 7.9 | 964 | 418 | 470 | 33 | 0.72 | < 1 | 130 | 25 | 33 | 1.2 | 4.2 | 0.091 | 2 | 90 | < 0.01 | 0.3 |
| 16-Nov-09 | Maxx | 7.8 | 988 | 389 | 510 | 42 | 0.75 | < 1 | 140 | 27 | 36 | 1.3 | 1.8 | 0.074 | 1.5 | 85 | < 0.01 | 0.5 |
| 18-May-10 | Maxx | 7.7 | 1030 | 422 | 480 | 52 | 0.77 | < 1 | 130 | 29 | 36 | 1.2 | 4.3 | 0.096 | 2.1 | 85 | < 0.01 | < 0.1 |
| 20-Oct-10 | Maxx | 7.91 | 1040 | 441 | 500 | 46 | 0.8 | < 1 | 140 | 29 | 38 | 1.1 | 5.1 | 0.1 | 2.3 | 64 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**

**C10-I**
**Outwash**
**6.9 - 8.5 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.4 | 996 | 307 | 432.2 | 64.1 | 0.792 | < 1 | 108 | 27.2 | 38.9 | 1 | 2.4 | 0.056 | 1.17 | 131 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 8.34 | 974 | 311 | 477 | 67.1 | 0.79 | < 1 | 113 | 33.3 | 48.1 | 1.2 | 2.64 | 0.056 | 1.21 | 139 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 8.04 | 976 | 329 | 510 | 75 | 0.74 | < 1 | 110 | 34 | 50 | | 2.6 | 0.057 | 1.19 | 147 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.01 | 920 | 314 | 500 | 86 | 0.73 | < 1 | 120 | 39 | 52 | 1.2 | 2.9 | 0.061 | 1.04 | 150 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.2 | 1020 | 338 | 490 | 72 | 0.73 | < 1 | 120 | 31 | 46 | 1.1 | 2.9 | 0.061 | 1.21 | 119 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 8.1 | 1040 | 329 | 500 | 73 | 0.83 | < 1 | 120 | 34 | 50 | 1.2 | 2.6 | 0.06 | 1.22 | 140 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 8.1 | 1000 | 330 | 490 | 75 | 0.77 | < 1 | 120 | 33 | 47 | 1.2 | 3.3 | 0.064 | 1.4 | 146 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 8.1 | 1050 | 329 | 480 | 76 | 0.81 | < 1 | 110 | 33 | 48 | 1.2 | 2.8 | 0.058 | 1.27 | 142 | < 0.01 | < 0.1 |
| 10-Apr-07 | Maxx | 8.1 | 1080 | 317 | 580 | 87 | 0.86 | 2 | 140 | 40 | 57 | 1.5 | 3 | 0.074 | 1.36 | 153 | < 0.01 | < 0.1 |
| 18-Jun-07 | Maxx | 8.1 | 1030 | 318 | 530 | 82 | 0.8 | < 1 | 130 | 37 | 51 | 1.3 | 3.2 | 0.072 | 1.34 | 141 | < 0.01 | < 0.1 |
| 13-Aug-07 | Maxx | 8.1 | 1030 | 318 | 530 | 85 | 0.79 | < 1 | 130 | 38 | 52 | 1.4 | 3.3 | 0.069 | 1.6 | 146 | < 0.01 | < 0.1 |
| 13-Nov-07 | Maxx | 8.2 | 1070 | 310 | 490 | 90 | 0.8 | < 1 | 120 | 33 | 46 | 1.2 | 3.2 | 0.068 | 1.42 | 143 | < 0.01 | < 0.1 |
| 29-Apr-08 | Maxx | 8.2 | 1050 | 316 | 500 | 72 | 0.76 | < 1 | 120 | 38 | 48 | 1.3 | 2.7 | 0.069 | 1.3 | 124 | < 0.01 | < 0.1 |
| 17-Jun-08 | Maxx | 8.2 | 1050 | 312 | 470 | 75 | 0.75 | < 1 | 110 | 34 | 46 | 1.2 | 2.8 | 0.064 | 1.3 | 129 | < 0.01 | < 0.1 |
| 08-Sep-08 | Maxx | 8.2 | 1050 | 313 | 480 | 68 | 0.75 | < 1 | 120 | 35 | 47 | 1.2 | 3 | 0.063 | 1.3 | 130 | < 0.01 | < 0.1 |
| 24-Nov-08 | Maxx | 8 | 1090 | 311 | 500 | 87 | 0.68 | < 1 | 120 | 43 | 51 | 1.7 | 3.1 | 0.067 | 1.4 | 128 | < 0.01 | < 0.1 |
| 29-Apr-09 | Maxx | 7.8 | 1090 | 326 | 540 | 88 | 0.7 | < 1 | 130 | 44 | 52 | 1.4 | 3.1 | 0.07 | 1.3 | 128 | < 0.01 | < 0.1 |
| 23-Jun-09 | Maxx | 8 | 1090 | 320 | 500 | 96 | 0.67 | < 1 | 120 | 41 | 49 | 1.3 | 3.2 | 0.065 | 1.4 | 138 | < 0.01 | < 0.1 |
| 25-Aug-09 | Maxx | 7.8 | 899 | 428 | 490 | 97 | 0.67 | < 1 | 120 | 38 | 44 | 1.1 | 3.3 | 0.067 | 1.4 | 132 | < 0.01 | < 0.1 |
| 16-Nov-09 | Maxx | 7.7 | 1170 | 327 | 540 | 109 | 0.63 | < 1 | 130 | 48 | 53 | 1.5 | 3.3 | 0.07 | 1.5 | 125 | < 0.01 | < 0.1 |
| 18-May-10 | Maxx | 8 | 1190 | 324 | 500 | 126 | 0.59 | < 1 | 120 | 47 | 48 | 1.3 | 2.8 | 0.071 | 1.4 | 133 | < 0.01 | < 0.1 |
| 20-Oct-10 | Maxx | 7.98 | 1190 | 335 | 510 | 115 | 0.61 | < 1 | 120 | 51 | 49 | 1.3 | 3.1 | 0.07 | 1.5 | 130 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - General Analysis - Eastview Road Landfill Site

**Monitor**
**C11-I**
**Outwash**
**5.9 - 7.4 m**

| | | General Parameters | | | | Critical Leachate Indicator | | | Leachate Indicator Parameters | | | | | | | Other Constituents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | pH | Cond-uctivity | Alk. as CaCO3 mg/L | Hard. | Cl mg/L | B mg/L | Phenol ug/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | Fe mg/L | Mn mg/L | NH3-N mg/L | SO4 mg/L | NO2-N mg/L | NO3-N mg/L |
| ODWS | Lab | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 5.0 h | | | 200 a | | | 0.30 a | 0.05 a | | 500 a | 1.0 h | 10 h |
| 11-Apr-05 | Phili | 7.11 | 1210 | 395 | 532.9 | 99 | 0.074 | < 1 | 161 | 40.6 | 31.5 | 1.2 | 2.37 | 0.454 | 0.66 | 136 | < 0.2 | < 0.2 |
| 21-Jun-05 | MAX | 8.05 | 1060 | 364 | 514 | 70.4 | 0.07 | < 1 | 154 | 35.4 | 35.5 | 1.4 | 2.22 | 0.41 | 0.6 | 143 | < 0.1 | < 0.1 |
| 31-Aug-05 | MAX | 8.02 | 1080 | 335 | 566 | 89 | 0.047 | < 1 | 140 | 33 | 39 | | 1.4 | 0.48 | 0.75 | 164 | < 0.01 | < 0.1 |
| 15-Nov-05 | MAX | 8.07 | 929 | 324 | 540 | 70 | 0.054 | < 1 | 140 | 34 | 41 | 1.1 | 1.1 | 0.55 | 0.72 | 174 | < 0.01 | < 0.1 |
| 28-Apr-06 | Maxx | 8.2 | 1140 | 378 | 550 | 75 | 0.06 | < 1 | 160 | 43 | 34 | 1.3 | 2.5 | 0.49 | 0.72 | 144 | < 0.01 | < 0.1 |
| 07-Jun-06 | Maxx | 7.9 | 1090 | 361 | 510 | 77 | 0.057 | < 1 | 150 | 45 | 34 | 1.2 | 2.4 | 0.43 | 0.63 | 135 | < 0.01 | < 0.1 |
| 30-Aug-06 | MAX | 8 | 1020 | 367 | 480 | 80 | 0.064 | < 1 | 140 | 41 | 31 | 1.3 | 2.5 | 0.41 | 0.69 | 109 | < 0.01 | < 0.1 |
| 24-Nov-06 | MAX | 7.8 | 1090 | 389 | 470 | 88 | 0.064 | < 1 | 140 | 48 | 31 | 1.3 | 2.3 | 0.39 | 0.73 | 83 | < 0.01 | < 0.1 |
| 10-Apr-07 | Maxx | 8 | 1190 | 428 | 560 | 105 | 0.064 | 2 | 170 | 55 | 36 | 1.6 | 2.6 | 0.42 | 0.66 | 71 | < 0.01 | < 0.1 |
| 18-Jun-07 | Maxx | 8.2 | 1100 | 424 | 530 | 87 | 0.065 | < 1 | 150 | 52 | 36 | 1.5 | 3.1 | 0.37 | 0.65 | 65 | < 0.01 | < 0.1 |
| 13-Aug-07 | Maxx | 8 | 1030 | 336 | 530 | 82 | 0.062 | < 1 | 150 | 34 | 38 | 1.4 | 1.7 | 0.39 | 0.74 | 135 | < 0.01 | < 0.1 |
| 13-Nov-07 | Maxx | 8.1 | 1380 | 350 | 570 | 177 | 0.049 | < 1 | 150 | 79 | 45 | 1.3 | 1.2 | 0.53 | 0.95 | 117 | < 0.01 | < 0.1 |
| 29-Apr-08 | Maxx | 8.1 | 1110 | 382 | 540 | 50 | 0.064 | < 1 | 150 | 38 | 37 | 1.3 | 2.8 | 0.45 | 0.64 | 143 | < 0.01 | < 0.1 |
| 17-Jun-08 | Maxx | 8 | 1060 | 359 | 460 | 48 | 0.044 | < 1 | 140 | 32 | 30 | 1.4 | 2.4 | 0.41 | 0.53 | 129 | < 0.01 | < 0.1 |
| 08-Sep-08 | Maxx | 8.2 | 1020 | 348 | 500 | 43 | 0.059 | < 1 | 140 | 30 | 35 | 1.2 | 2.5 | 0.44 | 0.53 | 127 | < 0.01 | < 0.1 |
| 24-Nov-08 | Maxx | 8 | 1080 | 348 | 500 | 62 | 0.1 | < 1 | 140 | 33 | 36 | 1.6 | 2.6 | 0.43 | 0.73 | 139 | < 0.01 | < 0.1 |
| 29-Apr-09 | Maxx | 7.6 | 1360 | 359 | 640 | 151 | 0.057 | < 1 | 190 | 49 | 42 | 1.4 | 4 | 0.45 | 0.62 | 144 | < 0.01 | < 0.1 |
| 23-Jun-09 | Maxx | 7.8 | 1180 | 349 | 540 | 102 | 0.053 | < 1 | 160 | 39 | 36 | 1.4 | 3.6 | 0.38 | 0.55 | 148 | < 0.01 | < 0.1 |
| 25-Aug-09 | Maxx | 7.7 | 1460 | 372 | 580 | 205 | 0.054 | < 1 | 160 | 79 | 45 | 1.4 | 1.8 | 0.5 | 0.91 | 108 | < 0.01 | < 0.1 |
| 16-Nov-09 | Maxx | 7.6 | 1120 | 350 | 530 | 82 | 0.059 | < 1 | 140 | 46 | 42 | 1.1 | 1.6 | 0.45 | 0.85 | 121 | < 0.01 | < 0.1 |
| 18-May-10 | Maxx | 7.6 | 1410 | 319 | 580 | 195 | 0.052 | < 1 | 170 | 55 | 38 | 1.3 | 3.5 | 0.48 | 0.65 | 163 | < 0.01 | < 0.1 |
| 20-Oct-10 | Maxx | 7.87 | 1260 | 317 | 540 | 152 | 0.07 | < 1 | 160 | 47 | 37 | 1.2 | 3.1 | 0.47 | 0.71 | 124 | < 0.01 | < 0.1 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Reletaed Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I mg/L | Br mg/L | Cr mg/L | Ni mg/L | Zn mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** 2-I Outwash 9.8 - 10.4 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | 0.002 | 0.005 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | 0.002 | 0.005 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | 0.001 | < 0.005 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | 0.002 | < 0.005 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.022 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.007 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | 0.006 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | 0.011 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.008 |
| | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.01 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.007 |
| | 13-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.008 |
| | 29-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.004 | 0.012 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.004 | 0.011 |
| | 08-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.01 |
| | 24-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.011 |
| | 28-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.004 | 0.026 |
| | 22-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.015 |
| | 25-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.007 |
| | 16-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.009 |
| | 18-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.008 |
| | 21-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.007 |
| **Monitor** 2-II Outwash 0.2 - 4.6 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | 0.003 | 0.709 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | 0.004 | 0.69 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.16 |
| | 30-Aug-06 | N/A | | | | | |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.092 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.12 |
| | 29-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.13 |
| | 08-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.21 |
| | 28-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.091 |
| | 25-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.13 |
| | 21-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.17 |
| **Monitor** 4-IR Bedrock 19.4 - 20.9 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | < 0.005 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | < 0.001 | 0.005 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 19-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 16-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 15-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 01-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 18-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 09-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 25-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 26-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 16-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 18-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.008 |
| | 27-Jul-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 26-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 06-Dec-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | Date | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | I | | Br | | Cr | | Ni | | Zn | |
| | | | mg/L | | mg/L | | mg/L | | mg/L | | mg/L | |
| | ODWS | Lab | | | | | 0.05 h | | | | 5.0 a | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **4-II** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Lower Till** | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **13.6 -14.0 m** | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 10-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** | 19-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **4-IIR** | 16-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Lower Till** | 15-Nov-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **11.9 - 13.7 m** | 01-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 18-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 25-Nov-08 | N/A | | | | | | | | | | |
| | 30-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 26-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.011 |
| | 17-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 |
| | 26-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.5 | | 3 | < | 0.05 | < | 0.01 | < | 0.05 |
| **4-IIIR** | 21-Jun-05 | MAX | < | 0.1 | < | 35 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Upper Till** | 31-Aug-05 | MAX | < | 0.1 | | 47 | < | 0.2 | < | 0.001 | | 0.012 |
| **1.1 - 4.1 m** | 15-Nov-05 | MAX | | | < | 10 | < | 0.05 | < | 0.01 | < | 0.05 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.03 | < | 0.005 | < | 0.03 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 10 | < | 0.03 | < | 0.005 | < | 0.03 |
| | 30-Aug-06 | MAX | < | 0.1 | | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 10-Apr-07 | Maxx | < | 0.1 | | 2 | < | 0.005 | < | 0.005 | < | 0.005 |
| | 19-Jun-07 | Maxx | < | 0.1 | < | 10 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 16-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 15-Nov-07 | Maxx | < | 0.1 | | 2 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 01-May-08 | Maxx | < | 0.1 | | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 18-Jun-08 | Maxx | < | 0.1 | | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 25-Nov-08 | Maxx | < | 0.1 | | 2 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Jun-09 | Maxx | < | 0.1 | < | 10 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 26-Aug-09 | Maxx | < | 0.1 | | 2 | < | 0.005 | < | 0.001 | | 0.012 |
| | 16-Nov-09 | Maxx | < | 0.1 | | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 17-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 |
| | 26-Oct-10 | Maxx | < | 0.1 | < | 5 | < | 0.005 | < | 0.001 | < | 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I mg/L | Br mg/L | Cr mg/L | Ni mg/L | Zn mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** 5-II Upper Till 1.7 - 7.8 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | 0.005 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | < 0.001 | 0.006 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | < 0.001 | 0.005 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.008 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.006 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 13-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.006 |
| | 29-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 19-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.006 |
| | 08-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 25-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 01-May-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 22-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 26-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 16-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.006 |
| | 17-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.013 |
| | 26-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.006 |
| **Monitor** 9A-I Bedrock 25.1 - 25.9 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | < 0.005 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 11-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 15-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 11-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 27-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 27-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| **Monitor** 9-I Outwash 5.5 - 6.8 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | 0.001 | 0.356 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | 0.001 | 0.26 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.33 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | 0.29 |
| | 11-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.38 |
| | 15-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.38 |
| | 30-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.004 | 0.42 |
| | 11-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.006 | 0.49 |
| | 30-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.005 | 0.4 |
| | 27-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.006 | 0.21 |
| | 27-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.006 | 0.093 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I | Br | Cr | Ni | Zn |
| | | | mg/L | mg/L | mg/L | mg/L | mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** 10-II Outwash 3.0 - 3.6 m | 11-Apr-05 | Philip | < 0.2 | < 0.5 | < 0.005 | < 0.001 | 0.014 |
| | 21-Jun-05 | MAX | < 0.1 | < 18 | < 0.005 | < 0.001 | 0.017 |
| | 31-Aug-05 | INV | | | | | |
| | 15-Nov-05 | INV | | | | | |
| | 28-Apr-06 | INV | | | | | |
| | 07-Jun-06 | INV | | | | | |
| | 30-Aug-06 | INV | | | | | |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.01 |
| | 11-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.005 | 0.017 |
| | 19-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.013 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.005 | 0.006 |
| | 14-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 01-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.015 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.023 |
| | 09-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 25-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 28-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.014 |
| | 26-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.013 |
| | 28-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 18-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 19-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.008 |
| | 27-Oct-10 | Maxx | < 0.1 | < 10 | < 0.005 | < 0.001 | < 0.005 |
| **Monitor** 10-III Outwash/Peat 0.3 - 1.5 m | 11-Apr-05 | Philip | < 0.2 | < 0.5 | < 0.005 | 0.001 | 0.009 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.05 | < 0.01 | < 0.05 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.008 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | 0.002 | 0.017 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.03 | < 0.005 | < 0.03 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.008 |
| | 11-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 19-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.014 |
| | 13-Aug-07 | Dry | | | | | |
| | 14-Nov-07 | INV | | | | | |
| | 01-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.008 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 09-Sep-08 | Maxx | < 0.1 | < 1 | < 0.05 | < 0.01 | < 0.05 |
| | 25-Nov-08 | INV | | | | | |
| | 28-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | < 0.005 |
| | 26-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 28-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 19-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 19-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 27-Oct-10 | Maxx | < 0.1 | < 10 | < 0.005 | < 0.001 | < 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | Date | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | I | | Br | | Cr | | Ni | | Zn | |
| | | | mg/L | | mg/L | | mg/L | | mg/L | | mg/L | |
| | ODWS | Lab | | | | | 0.05 h | | | | 5.0 a | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **11-I** | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | | 0.001 | < | 0.005 |
| **Upper Till** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **4.6 - 5.8 m** | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | < | 0.001 | | 0.007 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 10-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 18-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 13-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 14-Nov-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 29-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 17-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 08-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 25-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.005 |
| | 22-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 27-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.006 |
| | 17-Nov-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | < | 0.005 |
| | 18-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 |
| | 26-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.01 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | | 0.011 |
| **11-II** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.008 |
| **Outwash** | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.014 |
| **0.2 - 2.9 m** | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 |
| | 10-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.011 |
| | 13-Aug-07 | Dry | | | | | | | | | | |
| | 29-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 |
| | 08-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.033 |
| | 30-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.013 |
| | 27-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.016 |
| | 26-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **11-III** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Lower Till** | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **18.5 - 17.0 m** | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 10-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 14-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 29-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 08-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 27-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.008 |
| | 26-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **13-I** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Bedrock** | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **24.4 - 25.6 m** | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 11-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 14-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 02-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 28-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 28-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 27-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | I | | Br | Cr | | Ni | | Zn | | |
| | | | mg/L | | mg/L | mg/L | | mg/L | | mg/L | | |
| | ODWS | Lab | | | | 0.05 h | | | | 5.0 a | | |
| **Monitor** 13-II Lower Till 19.5 - 20.1 m | 11-Apr-05 | Philip | < | 0.1 | < 0.5 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 31-Aug-05 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.006 | |
| | 28-Apr-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 30-Aug-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 11-Apr-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 14-Aug-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | < | 0.005 | |
| | 02-May-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.002 | < | 0.005 | |
| | 09-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 28-Apr-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 28-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.005 | |
| | 27-Oct-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| **Monitor** 13-III Upper Till 7.6 - 8.8 m | 11-Apr-05 | Philip | < | 0.1 | < 0.5 | < | 0.005 | < | 0.001 | | 0.005 | |
| | 21-Jun-05 | MAX | < | 0.1 | < 0.35 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 31-Aug-05 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 15-Nov-05 | MAX | | | < 1 | < | 0.005 | < | 0.001 | | 0.009 | |
| | 28-Apr-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 07-Jun-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 30-Aug-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 24-Nov-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 11-Apr-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 18-Jun-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 14-Aug-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 14-Nov-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 02-May-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 17-Jun-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | < | 0.005 | |
| | 09-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 25-Nov-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 28-Apr-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 26-Jun-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.01 | |
| | 28-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.002 | < | 0.005 | |
| | 18-Nov-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 19-May-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.007 | |
| | 27-Oct-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | < | 0.005 | |
| **Monitor** 13-IV Outwash 4.1 - 5.3 m | 11-Apr-05 | Philip | < | 0.5 | 0.6 | < | 0.05 | < | 0.01 | < | 0.05 | |
| | 21-Jun-05 | MAX | < | 0.1 | < 35 | < | 0.05 | < | 0.01 | < | 0.05 | |
| | 31-Aug-05 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.001 | |
| | 15-Nov-05 | MAX | | | < 1 | < | 0.05 | < | 0.01 | < | 0.05 | |
| | 28-Apr-06 | Maxx | < | 0.1 | < 1 | < | 0.03 | < | 0.005 | < | 0.03 | |
| | 07-Jun-06 | Maxx | < | 0.1 | < 1 | < | 0.03 | < | 0.005 | | 0.005 | |
| | 30-Aug-06 | MAX | < | 0.1 | < 1 | < | 0.03 | < | 0.005 | < | 0.03 | |
| | 24-Nov-06 | MAX | < | 0.1 | < 1 | < | 0.03 | < | 0.005 | < | 0.03 | |
| | 11-Apr-07 | Maxx | < | 0.1 | < 1 | < | 0.03 | < | 0.005 | < | 0.03 | |
| | 18-Jun-07 | Maxx | < | 0.1 | < 1 | < | 0.03 | < | 0.005 | < | 0.03 | |
| | 14-Aug-07 | Maxx | < | 0.1 | < 1 | < | 0.03 | < | 0.005 | < | 0.03 | |
| | 14-Nov-07 | Maxx | < | 0.1 | < 1 | < | 0.03 | < | 0.005 | < | 0.03 | |
| | 02-May-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 17-Jun-08 | Maxx | < | 0.1 | 2 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 09-Sep-08 | Maxx | < | 0.5 | < 5 | < | 0.03 | < | 0.005 | < | 0.03 | |
| | 25-Nov-08 | Maxx | < | 0.1 | < 10 | < | 0.001 | < | 0.001 | < | 0.005 | |
| | 28-Apr-09 | Maxx | < | 0.1 | 2 | < | 0.005 | < | -0.001 | < | 0.005 | |
| | 26-Jun-09 | Maxx | < | 0.1 | < 2 | < | 0.03 | < | 0.005 | < | 0.03 | |
| | 28-Aug-09 | Maxx | < | 0.1 | < 5 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 18-Nov-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.006 | |
| | 19-May-10 | Maxx | < | 0.1 | < 1 | < | 0.03 | < | 0.005 | < | 0.03 | |
| | 27-Oct-10 | Maxx | < | 0.1 | < 10 | < | 0.005 | < | 0.001 | | 0.005 | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I mg/L | Br mg/L | Cr mg/L | Ni mg/L | Zn mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** 13-V Outwash 0.1 - 2.2 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | 0.02 |
| | 21-Jun-05 | INV | | | | | |
| | 31-Aug-05 | INV | | | | | |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | < 0.001 | 0.019 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.015 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.042 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.063 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.019 |
| | 11-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.016 |
| | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.045 |
| | 14-Aug-07 | INV | | | | | |
| | 14-Nov-07 | INV | | | | | |
| | 02-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.067 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.068 |
| | 09-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.13 |
| | 25-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.08 |
| | 28-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.077 |
| | 26-Jun-09 | Maxx | 0.6 | < 1 | < 0.005 | < 0.001 | 0.022 |
| | 28-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.013 |
| | 18-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.049 |
| | 19-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.048 |
| | 27-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.13 |
| **Monitor** 14-II Outwash 4.5 - 5.1 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | 0.002 | 0.025 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | 0.003 | 0.023 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | 0.001 | 0.019 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | 0.002 | 0.023 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.029 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.005 | 0.022 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.018 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | 0.021 |
| | 12-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.005 | 0.027 |
| | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.03 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.005 | 0.019 |
| | 14-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.018 |
| | 01-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.024 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.025 |
| | 10-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.016 |
| | 25-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.014 |
| | 28-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.025 |
| | 26-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.022 |
| | 28-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.031 |
| | 18-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.02 |
| | 19-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.028 |
| | 02-Nov-10 | Maxx | < 0.1 | < 1 | < 0.001 | 0.002 | 0.027 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I mg/L | Br mg/L | Cr mg/L | Ni mg/L | Zn mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** | 11-Apr-05 | INV | | | | | |
| **14-III** | 21-Jun-05 | INV | | | | | |
| **Outwash** | 31-Aug-05 | INV | | | | | |
| **0.2 - 2.3 m** | 15-Nov-05 | INV | | | | | |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.01 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.01 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.003 | 0.009 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.013 |
| | 12-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.008 |
| | 18-Jun-07 | Maxx | 0.1 | < 1 | < 0.005 | 0.003 | 0.008 |
| | 13-Aug-07 | INV | | | | | |
| | 14-Nov-07 | INV | | | | | |
| | 01-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.012 |
| | 20-Jun-08 | INV | | | | | |
| | 10-Sep-08 | INV | | | | | |
| | 25-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.007 |
| | 28-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.007 |
| | 26-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | < 0.005 |
| | 28-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.006 |
| | 18-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.008 |
| | 19-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | < 0.005 |
| | 02-Nov-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.015 |
| **Monitor** | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | < 0.005 |
| **14-IV** | 21-Jun-05 | MAX | < 0.1 | < 35 | < 0.005 | < 0.001 | < 0.005 |
| **Bedrock** | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| **25.6 - 27.1 m** | 15-Nov-05 | MAX | | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 13-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 20-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 14-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 15-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 02-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 20-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 11-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 25-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 26-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 28-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 18-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 19-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 02-Nov-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| **Monitor** | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | < 0.005 |
| **15-I** | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| **Bedrock** | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.006 |
| **25.9 - 27.1 m** | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 12-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 14-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 29-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 09-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 29-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 25-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 25-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | Date | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | I | | Br | | Cr | | Ni | | Zn | |
| | | | mg/L | | mg/L | | mg/L | | mg/L | | mg/L | |
| | ODWS | Lab | | | | | 0.05 h | | | | 5.0 a | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **15-II** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Lower Till** | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **19.8 - 21.0 m** | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 12-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 14-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 29-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 29-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 25-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 25-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **15-III** | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | | 0.002 | | 0.008 |
| **Upper Till** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **9.0 - 10.2 m** | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 12-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 20-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 14-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 15-Nov-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 29-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 17-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | < | 0.005 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 |
| | 25-Nov-08 | N/A | | | | | | | | | | |
| | 29-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 25-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 18-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.006 |
| | 25-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.005 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | | 0.007 |
| **15-IV** | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | | 0.002 | | 0.01 |
| **Outwash** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **5.6 - 6.8 m** | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.007 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.005 |
| | 12-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 20-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.014 |
| | 14-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.007 |
| | 15-Nov-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 29-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.005 |
| | 17-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.007 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.015 |
| | 29-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.008 |
| | 25-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.008 |
| | 16-Nov-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 18-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.015 |
| | 25-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.012 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | I | | Br | | Cr | | Ni | | Zn | |
| | | | mg/L | | mg/L | | mg/L | | mg/L | | mg/L | |
| | ODWS | Lab | | | | | 0.05 h | | | | 5.0 a | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | | 0.008 |
| **15-V** | 21-Jun-05 | INV | | | | | | | | | | |
| **Fill** | 31-Aug-05 | INV | | | | | | | | | | |
| **0.1 - 2.3 m** | 15-Nov-05 | INV | | | < | | < | | < | | | |
| | 15-Nov-05 | INV | | | | | | | | | | |
| | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | < | 0.001 | | 0.013 |
| | 15-Nov-05 | MAX | | | | 1 | | 0.005 | | 0.001 | | 0.013 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.012 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.021 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.005 | | 0.041 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.01 |
| | 12-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 20-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.025 |
| | 14-Aug-07 | INV | | | | | | | | | | |
| | 15-Nov-07 | INV | | | | | | | | | | |
| | 29-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.016 |
| | 17-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.035 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.024 |
| | 24-Nov-08 | INV | | | | | | | | | | |
| | 29-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 25-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.016 |
| | 18-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.013 |
| | 25-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.023 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **16-I** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Lower Till** | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **13.0 - 15.1 m** | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 12-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 14-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 29-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 29-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 25-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 21-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.007 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | | 0.002 | | 0.013 |
| **16-IV** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | < | 0.005 |
| **Upper Till** | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.013 |
| **3.8 - 4.4 m** | 30-Aug-06 | N/A | | | | | | | | | | |
| | 12-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.005 | | 0.019 |
| | 14-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.016 |
| | 29-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.012 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.013 |
| | 29-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.012 |
| | 22-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.016 |
| | 25-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | < | 0.005 |
| | 18-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.019 |
| | 21-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.019 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | Date | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | I | | Br | Cr | | Ni | | Zn | | |
| | | | mg/L | | mg/L | mg/L | | mg/L | | mg/L | | |
| | ODWS | Lab | | | | 0.05 h | | | | 5.0 a | | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < 0.5 | < | 0.005 | < | 0.001 | | 0.021 | |
| **16-V** | 31-Aug-05 | INV | | | | | | | | | | |
| **Fill** | 28-Apr-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.017 | |
| **0.3 - 2.4 m** | 30-Aug-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.025 | |
| | 12-Apr-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.016 | |
| | 14-Aug-07 | Dry | | | | | | | | | | |
| | 29-Apr-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.017 | |
| | 09-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.03 | |
| | 29-Apr-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.021 | |
| | 22-Jun-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.025 | |
| | 25-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.023 | |
| | 18-May-10 | INSV | | | | | | | | | | |
| | 21-Oct-10 | INSV | | | | | | | | | | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < 0.5 | < | 0.005 | < | 0.001 | < | 0.005 | |
| **16-VI** | 31-Aug-05 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| **Lower Till** | 28-Apr-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| **19.2 - 17.6 m** | 30-Aug-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 12-Apr-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 14-Aug-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 29-Apr-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 09-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 29-Apr-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 25-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 21-Oct-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.011 | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < 0.5 | < | 0.005 | < | 0.001 | < | 0.005 | |
| **16-VII** | 21-Jun-05 | MAX | < | 0.1 | < 0.35 | < | 0.005 | < | 0.001 | | 0.006 | |
| **Bedrock** | 31-Aug-05 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.008 | |
| **25.5 - 27.0 m** | 15-Nov-05 | MAX | | | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 28-Apr-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 07-Jun-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 30-Aug-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 24-Nov-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 13-Apr-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 20-Jun-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 14-Aug-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 15-Nov-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 02-May-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 20-Jun-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 11-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 26-Nov-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.005 | |
| | 29-Apr-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.013 | < | 0.005 | |
| | 22-Jun-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 25-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 16-Nov-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 18-May-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.007 | |
| | 25-Oct-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < 0.5 | < | 0.005 | < | 0.001 | | 0.012 | |
| **17-I** | 31-Aug-05 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.013 | |
| **Bedrock** | 28-Apr-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.015 | |
| **24.4 - 25.6 m** | 30-Aug-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.012 | |
| | 11-Apr-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.012 | |
| | 14-Aug-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.01 | |
| | 30-Apr-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.011 | |
| | 11-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.008 | |
| | 30-Apr-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.01 | |
| | 27-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.017 | |
| | 27-Oct-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.013 | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | I | | Br | | Cr | | Ni | | Zn | |
| | | | mg/L | | mg/L | | mg/L | | mg/L | | mg/L | |
| | ODWS | Lab | | | | | 0.05 h | | | | 5.0 a | |
| **Monitor** 17-II Lower Till 18.6 - 19.2 m | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 11-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 14-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 11-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | < | 0.005 |
| | 27-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 27-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** 17-III Upper Till 5.9 - 7.1 m | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 |
| | 28-Apr-06 | Maxx | | | | | | | | | | |
| | 30-Aug-06 | INV | | | | | | | | | | |
| | 11-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 14-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.007 |
| | 30-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.005 |
| | 11-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.007 |
| | 27-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 27-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** 17-IV Outwash 0.5 - 4.2 m | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | | 0.015 |
| | 21-Jun-05 | INV | | | | | | | | | | |
| | 31-Aug-05 | INV | | | | | | | | | | |
| | 15-Nov-05 | INV | | | | | | | | | | |
| | 28-Apr-06 | INV | | | | | | | | | | |
| | 07-Jun-06 | INV | | | | | | | | | | |
| | 30-Aug-06 | INV | | | | | | | | | | |
| | 24-Nov-06 | INV | < | | < | | < | | < | | | |
| | 24-Nov-06 | INV | | | | | | | | | | |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.023 |
| | 24-Nov-06 | MAX | | 0.1 | | 1 | | 0.005 | | 0.001 | | 0.023 |
| | 11-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.016 |
| | 18-Jun-07 | INV | | | | | | | | | | |
| | 14-Aug-07 | Dry | | | | | | | | | | |
| | 15-Nov-07 | INV | | | | | | | | | | |
| | 30-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.014 |
| | 18-Jun-08 | INV | | | | | | | | | | |
| | 11-Sep-08 | INV | | | | | | | | | | |
| | 26-Nov-08 | INV | | | | | | | | | | |
| | 30-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.016 |
| | 26-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.024 |
| | 27-Aug-09 | INSV | | | | | | | | | | |
| | 20-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.037 |
| | 27-Oct-10 | INVS | | | | | | | | | | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | Date | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | I | | Br | | Cr | | Ni | | Zn | |
| | | | mg/L | | mg/L | | mg/L | | mg/L | | mg/L | |
| | ODWS | Lab | | | | | 0.05 h | | | | 5.0 a | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | | 0.003 | | 0.073 |
| **18-III** | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | | 0.004 | | 0.107 |
| **Outwash** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.033 |
| **0.1 - 2.9 m** | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | | 0.001 | | 0.03 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.12 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.005 | | 0.32 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.07 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.14 |
| | 11-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.005 | | 0.11 |
| | 18-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.005 | | 0.14 |
| | 14-Aug-07 | INV | | | | | | | | | | |
| | 15-Nov-07 | INV | | | | | | | | | | |
| | 30-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.11 |
| | 18-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.14 |
| | 11-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.098 |
| | 26-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.13 |
| | 30-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.087 |
| | 26-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.12 |
| | 27-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.086 |
| | 18-Nov-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.006 | | 0.16 |
| | 20-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.005 | | 0.11 |
| | 27-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.12 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **19-I** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Bedrock** | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **24.6 - 25.8 m** | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 11-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 15-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.029 |
| | 01-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 01-May-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 26-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 26-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **19-II** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Lower Till** | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **19.8 - 21.0 m** | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 11-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 15-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 01-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 09-Sep-08 | Maxx | | 0 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 01-May-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 26-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 26-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **19-IV** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Upper Till** | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **6.1 - 8.9 m** | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.005 |
| | 11-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 13-Aug-07 | Maxx | | | | | | | | | | |
| | 15-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.005 |
| | 01-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 09-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 01-May-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 26-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.005 |
| | 26-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.007 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | Date | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | | | I | Br | Cr | Ni | Zn |
| | | | mg/L | mg/L | mg/L | mg/L | mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** 26-I Outwash 0.8 - 2.3 m | 11-Apr-05 | N/A | | | | | |
| | 21-Jun-05 | INV | | | | | |
| | 31-Aug-05 | Dry | | | | | |
| | 15-Nov-05 | Dry | | | | | |
| | 28-Apr-06 | INV | | | | | |
| | 28-Apr-06 | INV | | | | | |
| | 28-Apr-06 | N/A | | | | | |
| | 28-Apr-06 | N/A | | | | | |
| | 07-Jun-06 | INV | | | | | |
| | 30-Aug-06 | INV | | | | | |
| | 24-Nov-06 | INV | | | | | |
| | 11-Apr-07 | INV | | | | | |
| | 21-Jun-07 | INV | | | | | |
| | 14-Aug-07 | Dry | | | | | |
| | 13-Nov-07 | INV | | | | | |
| | 06-May-08 | INV | | | | | |
| | 20-Jun-08 | INV | | | | | |
| | 15-Sep-08 | Dry | | | | | |
| | 26-Nov-08 | INV | | | | | |
| | 23-Jun-09 | INV | | | | | |
| | 26-Aug-09 | INSV | | | | | |
| | 18-Nov-09 | INSV | | | | | |
| **Monitor** 28-I Outwash 0.8 - 2.3 m | 11-Apr-05 | INV | | | | | |
| | 21-Jun-05 | INV | | | | | |
| | 31-Aug-05 | INV | | | | | |
| | 15-Nov-05 | INV | | | | | |
| | 28-Apr-06 | INV | | | | | |
| | 07-Jun-06 | INV | | | | | |
| | 30-Aug-06 | INV | | | | | |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | 0.82 |
| | 11-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 1.1 |
| | 21-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.58 |
| | 14-Aug-07 | INV | | | | | |
| | 13-Nov-07 | INV | | | | | |
| | 06-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.91 |
| | 20-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.76 |
| | 15-Sep-08 | Maxx | < 0.5 | < 1 | < 0.005 | 0.003 | 2 |
| | 26-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.29 |
| | 29-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.51 |
| | 23-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.4 |
| | 28-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.43 |
| | 18-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.38 |
| | 20-May-10 | INSV | | | | | |
| | 28-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.61 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | Date | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | I | | Br | | Cr | | Ni | | Zn | |
| | | | mg/L | | mg/L | | mg/L | | mg/L | | mg/L | |
| | ODWS | Lab | | | | | 0.05 h | | | | 5.0 a | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | | 0.006 | | 1.03 |
| | 21-Jun-05 | INV | | | | | | | | | | |
| 30-I | 31-Aug-05 | INV | | | | | | | | | | |
| Outwash | 15-Nov-05 | INV | | | | | | | | | | |
| 0.6 - 2.3 m | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.004 | | 0.57 |
| | 07-Jun-06 | INV | | | | | | | | | | |
| | 30-Aug-06 | INV | | | | | | | | | | |
| | 24-Nov-06 | INV | | | | | | | | | | |
| | 24-Nov-06 | INV | < | | < | | < | | | | | |
| | 24-Nov-06 | MAX | | 0.1 | | 1 | | 0.005 | | 0.006 | | 0.24 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.006 | | 0.24 |
| | 11-Apr-07 | INV | | | | | | | | | | |
| | 21-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.064 |
| | 14-Aug-07 | INV | | | | | | | | | | |
| | 13-Nov-07 | INV | | | | | | | | | | |
| | 30-Apr-08 | Maxx | | | | | | | | | | |
| | 06-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.004 | | 1.8 |
| | 20-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.005 | | 8.2 |
| | 15-Sep-08 | Maxx | < | 0.5 | < | 1 | < | 0.005 | | 0.007 | | 0.66 |
| | 26-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.36 |
| | 29-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.005 | | 4 |
| | 23-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 4 |
| | 28-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 18-Nov-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.064 |
| | 20-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 1.3 |
| | 28-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | | 0.001 | | 0.104 |
| | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | | 0.002 | | 0.107 |
| 35-I | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.097 |
| Outwash | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | | 0.006 | | 0.096 |
| 0.2 - 1.9 m | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.18 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.19 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.11 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.15 |
| | 11-Apr-07 | Froze | | | | | | | | | | |
| | 18-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.066 |
| | 14-Aug-07 | INV | | | | | | | | | | |
| | 13-Nov-07 | INV | | | | | | | | | | |
| | 30-Apr-08 | Maxx | < | | < | | < | | | | | |
| | 30-Apr-08 | Maxx | | | | | | | | | | |
| | 30-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.17 |
| | 30-Apr-08 | Maxx | | 0.1 | | 1 | | 0.005 | | 0.003 | | 0.17 |
| | 18-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.014 |
| | 11-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.081 |
| | 26-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.14 |
| | 01-May-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.25 |
| | 26-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.7 |
| | 27-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.64 |
| | 18-Nov-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.3 |
| | 20-May-10 | N/A | | | | | | | | | | |
| | 28-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | I | | Br | Cr | | Ni | | Zn | | |
| | | | mg/L | | mg/L | mg/L | | mg/L | | mg/L | | |
| | ODWS | Lab | | | | 0.05 h | | | | 5.0 a | | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < 0.5 | < | 0.005 | < | 0.001 | | 0.011 | |
| **37-I** | 21-Jun-05 | MAX | < | 0.1 | < 0.35 | < | 0.005 | < | 0.001 | | 0.011 | |
| **Bedrock** | 31-Aug-05 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.007 | |
| **23.0 - 27.5 m** | 15-Nov-05 | MAX | | | < 1 | < | 0.005 | < | 0.001 | | 0.008 | |
| | 28-Apr-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.012 | |
| | 07-Jun-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.009 | |
| | 30-Aug-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.012 | |
| | 24-Nov-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.012 | |
| | 11-Apr-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.013 | |
| | 19-Jun-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.013 | |
| | 14-Aug-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.01 | |
| | 13-Nov-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.014 | |
| | 30-Apr-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.012 | |
| | 18-Jun-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.013 | |
| | 11-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.01 | |
| | 26-Nov-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.016 | |
| | 29-Apr-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.015 | |
| | 23-Jun-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.036 | |
| | 28-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.018 | |
| | 18-Nov-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.009 | |
| | 19-May-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.006 | |
| | 27-Jul-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 28-Oct-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 06-Dec-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.003 | | 0.12 | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < 0.5 | < | 0.005 | < | 0.001 | < | 0.005 | |
| **50-I** | 21-Jun-05 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| **Bedrock** | 31-Aug-05 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| **39.8 - 41.2 m** | 15-Nov-05 | MAX | | | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 28-Apr-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 07-Jun-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 30-Aug-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.009 | |
| | 24-Nov-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 12-Apr-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 19-Jun-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.003 | < | 0.005 | |
| | 16-Aug-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 12-Nov-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 02-May-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 18-Jun-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 10-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 26-Nov-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 01-May-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 22-Jun-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 27-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 16-Nov-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 19-May-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 27-Jul-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.006 | |
| | 21-Oct-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 06-Dec-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I mg/L | Br mg/L | Cr mg/L | Ni mg/L | Zn mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** 53-I Bedrock 21.0 - 22.6 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | < 0.005 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | < 0.001 | < 0.005 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.008 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 14-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.036 |
| | 29-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 08-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 25-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 27-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 17-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 17-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 27-Jul-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 26-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 06-Dec-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| **Monitor** 53-II Lower Till 13.9 - 15.4 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | 0.002 | < 0.005 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | 0.002 | 0.008 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | < 0.005 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | 0.002 | < 0.005 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.017 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.03 | 0.001 | 0.01 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | < 0.005 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | 0.013 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.005 |
| **Monitor** 53-IIR Lower Till 13.4 - 15.2 m | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.009 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | < 0.005 |
| | 14-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | < 0.005 |
| | 29-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | < 0.005 |
| | 08-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | < 0.005 |
| | 25-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | < 0.005 |
| | 30-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | < 0.005 |
| | 24-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | < 0.005 |
| | 27-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.013 |
| | 17-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.006 |
| | 17-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.008 |
| | 26-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | < 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | Date | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | | | I | Br | Cr | Ni | Zn |
| | | | mg/L | mg/L | mg/L | mg/L | mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** 54-I Bedrock 25.9 - 27.4 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | 0.055 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | < 0.001 | 0.059 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.061 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | < 0.001 | 0.057 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.06 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.056 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.055 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.059 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.054 |
| | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.043 |
| | 14-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.056 |
| | 12-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.055 |
| | 01-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.059 |
| | 19-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.064 |
| | 10-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.065 |
| | 25-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.059 |
| | 01-May-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.071 |
| | 22-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.05 |
| | 26-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.063 |
| | 16-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.055 |
| | 17-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.06 |
| | 25-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.055 |
| **Monitor** 60-I Lower Till 13.3 - 14.8 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | < 0.005 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | < 0.001 | 0.008 |
| | 31-Aug-05 | MAX | | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 20-Jun-07 | Maxx | < 0.1 | 3 | < 0.005 | < 0.001 | < 0.005 |
| | 16-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 15-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 01-May-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 19-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 08-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 29-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 22-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 27-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.01 |
| | 17-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 17-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 27-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | Date | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | I | | Br | | Cr | | Ni | | Zn | |
| | | | mg/L | | mg/L | | mg/L | | mg/L | | mg/L | |
| | ODWS | Lab | | | | | 0.05 h | | | | 5.0 a | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **60-II** | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | < | 0.001 | | 0.006 |
| **Upper Till** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.013 |
| **10.7 - 12.2 m** | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 10-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 20-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 16-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 15-Nov-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 01-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 19-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 08-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 29-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 22-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 27-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 17-Nov-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 17-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 27-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **60-III** | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | < | 0.001 | | 0.01 |
| **Upper Till** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.007 |
| **0.6 - 5.2** | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | | 0.004 | < | 0.005 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 10-Apr-07 | Maxx | < | 0.1 | | 6 | < | 0.005 | < | 0.001 | | 0.005 |
| | 20-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.008 |
| | 16-Aug-07 | Maxx | < | 0.1 | | 1 | < | 0.005 | | 0.002 | < | 0.005 |
| | 15-Nov-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.007 |
| | 01-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 19-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 08-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 29-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 22-Jun-09 | Maxx | | 0.3 | < | 1 | < | 0.005 | | 0.002 | | 0.005 |
| | 27-Aug-09 | Maxx | | 0.3 | < | 1 | < | 0.005 | | 0.003 | < | 0.005 |
| | 17-Nov-09 | Maxx | | 0.3 | < | 1 | < | 0.005 | | 0.003 | < | 0.005 |
| | 17-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | < | 0.005 |
| | 27-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.007 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | I | | Br | | Cr | | Ni | | Zn | | | |
| | | | mg/L | | mg/L | | mg/L | | mg/L | | mg/L | | | |
| | ODWS | Lab | | | | | 0.05 h | | | | 5.0 a | | | |
| **Monitor** 90-II bedrock 31.4 - 32.9 m | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | | 0.006 | | 0.107 | | |
| | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | | 0.004 | | 0.052 | | |
| | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.004 | | 0.031 | | |
| | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | | 0.003 | | 0.028 | | |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.005 | | 0.12 | | |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.005 | | 0.13 | | |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.004 | | 0.085 | | |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | | 0.009 | | 0.22 | | |
| | 12-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.011 | | 0.5 | | |
| | 21-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.01 | | 0.4 | | |
| | 15-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.007 | | 0.2 | | |
| | 13-Nov-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.005 | | 0.12 | | |
| | 01-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.008 | | 0.3 | | |
| | 18-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.008 | | 0.32 | | |
| | 10-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.008 | | 0.35 | | |
| | 25-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.006 | | 0.26 | | |
| | 01-May-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.01 | | 0.4 | | |
| | 24-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.009 | | 0.36 | | |
| | 26-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.007 | | 0.29 | | |
| | 16-Nov-09 | Maxx | < | 0.2 | < | 1 | < | 0.005 | | 0.005 | | 0.16 | | |
| | 17-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.005 | | 0.17 | | |
| | 27-Jul-10 | NA | | | | | | | | | | | | |
| | 25-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.003 | | 0.14 | | |
| | 06-Dec-10 | NA | | | | | | | | | | | | |
| **Monitor** 91-I Bedrock 25.5 - 27.0 m | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | | 0.05 | | |
| | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | < | 0.001 | | 0.035 | | |
| | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.014 | | |
| | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | < | 0.001 | | 0.016 | | |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.065 | | |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.049 | | |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.025 | | |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 | | |
| | 12-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.007 | | |
| | 18-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 | | |
| | 15-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.005 | | |
| | 12-Nov-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 | | |
| | 01-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.047 | | |
| | 19-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.045 | | |
| | 10-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.035 | | |
| | 25-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.012 | | |
| | 01-May-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.008 | | |
| | 22-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 | | |
| | 26-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 | | |
| | 16-Nov-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 | | |
| | 17-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.012 | | |
| | 27-Jul-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.009 | | |
| | 25-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 | | |
| | 06-Dec-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 | | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | I | | Br | Cr | | Ni | | Zn | | |
| | | | mg/L | | mg/L | mg/L | | mg/L | | mg/L | | |
| | ODWS | Lab | | | | 0.05 h | | | | 5.0 a | | |
| **Monitor** 92-I Bedrock 32.0 - 33.5 m | 11-Apr-05 | Philip | < | 0.1 | < 0.5 | < | 0.005 | < | 0.001 | | 0.051 | |
| | 21-Jun-05 | MAX | < | 0.1 | < 0.35 | < | 0.005 | < | 0.001 | | 0.052 | |
| | 31-Aug-05 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.052 | |
| | 15-Nov-05 | MAX | | | < 1 | < | 0.005 | | 0.001 | | 0.067 | |
| | 28-Apr-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.067 | |
| | 07-Jun-06 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.061 | |
| | 30-Aug-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.059 | |
| | 24-Nov-06 | MAX | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.058 | |
| | 12-Apr-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.061 | |
| | 18-Jun-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.054 | |
| | 15-Aug-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.057 | |
| | 14-Nov-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.058 | |
| | 30-Apr-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.064 | |
| | 18-Jun-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.066 | |
| | 11-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.088 | |
| | 26-Nov-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.077 | |
| | 29-Apr-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.002 | | 0.14 | |
| | 23-Jun-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.08 | |
| | 28-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.002 | | 0.092 | |
| | 18-Nov-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.095 | |
| | 19-May-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.081 | |
| | 20-Oct-10 | Deco | | | | | | | | | | |
| | 06-Dec-10 | Deco | | | | | | | | | | |
| **Monitor** 93-I Bedrock 24.6 - 28.7 m | 12-Nov-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.002 | < | 0.005 | |
| | 30-Apr-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.007 | |
| | 17-Jun-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.008 | |
| | 10-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.008 | |
| | 26-Nov-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.009 | |
| | 28-Apr-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.009 | |
| | 22-Jun-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.011 | |
| | 25-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.005 | |
| | 16-Nov-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.009 | |
| | 18-May-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.008 | |
| | 27-Jul-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.012 | |
| | 20-Oct-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.013 | |
| | 06-Dec-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.009 | |
| **Monitor** 94-I Bedrock 20.6 - 25.2 m | 12-Nov-07 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.002 | | 0.013 | |
| | 02-May-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.006 | |
| | 17-Jun-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.005 | |
| | 10-Sep-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.016 | |
| | 25-Nov-08 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 30-Apr-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.008 | |
| | 22-Jun-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 27-Aug-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | | 0.009 | |
| | 17-Nov-09 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | < | 0.005 | |
| | 18-May-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.009 | |
| | 27-Jul-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.007 | |
| | 20-Oct-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | < | 0.001 | < | 0.005 | |
| | 06-Dec-10 | Maxx | < | 0.1 | < 1 | < | 0.005 | | 0.001 | | 0.006 | |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | Date | | Trace Elements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | I | | Br | | Cr | | Ni | | Zn | |
| | | | mg/L | | mg/L | | mg/L | | mg/L | | mg/L | |
| | ODWS | Lab | | | | | 0.05 h | | | | 5.0 a | |
| **Monitor** | 12-Nov-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.002 | | 0.034 |
| **95-I** | 02-May-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.029 |
| **Bedrock** | 17-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | | 0.001 | | 0.024 |
| **36.2 - 41.0 m** | 10-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.026 |
| | 26-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.019 |
| | 01-May-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.021 |
| | 22-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.015 |
| | 27-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.022 |
| | 17-Nov-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.013 |
| | 18-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.018 |
| | 27-Jul-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.008 |
| | 21-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.01 |
| | 06-Dec-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.008 |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **S281** | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | < | 0.001 | < | 0.005 |
| **Outwash** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.001 | < | 0.05 | < | 0.0005 |
| | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.006 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 12-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 19-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.008 |
| | 14-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 13-Nov-07 | Deco | | | | | | | | | | |
| | 02-May-08 | Rem | | | | | | | | | | |
| | 17-Jun-08 | Gone | | | | | | | | | | |
| | 09-Sep-08 | Gone | | | | | | | | | | |
| | 25-Nov-08 | Gone | | | | | | | | | | |
| **Monitor** | 11-Apr-05 | Philip | < | 0.1 | < | 0.5 | < | 0.005 | < | 0.001 | < | 0.005 |
| **C2-I** | 21-Jun-05 | MAX | < | 0.1 | < | 0.35 | < | 0.005 | < | 0.001 | | 0.013 |
| **Outwash** | 31-Aug-05 | MAX | < | 0.1 | < | 1 | < | 0.001 | < | 0.05 | < | 0.0005 |
| **7.5 - 9.0 m** | 15-Nov-05 | MAX | | | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 28-Apr-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 07-Jun-06 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Aug-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Nov-06 | MAX | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 10-Apr-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 18-Jun-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 13-Aug-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 14-Nov-07 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 29-Apr-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 17-Jun-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 08-Sep-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 25-Nov-08 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 30-Apr-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 24-Jun-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 27-Aug-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 17-Nov-09 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |
| | 17-May-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | | 0.007 |
| | 17-May-10 | Maxx | | 0.1 | | 1 | | 0.005 | | 0.001 | | 0.007 |
| | 17-May-10 | Maxx | < | | < | | < | | < | | | |
| | 17-May-10 | Maxx | | | | | | | | | | |
| | 20-Oct-10 | Maxx | < | 0.1 | < | 1 | < | 0.005 | < | 0.001 | < | 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I | Br | Cr | Ni | Zn |
| | | | mg/L | mg/L | mg/L | mg/L | mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** C6-I Outwash 10.0 - 11.5 m | 11-Apr-05 | Philip | < 0.2 | < 0.5 | < 0.05 | < 0.01 | < 0.05 |
| | 21-Jun-05 | MAX | < 0.1 | < 18 | < 0.005 | 0.002 | 0.041 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.05 | < 0.01 | < 0.05 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | 0.003 | 0.038 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.005 | 0.044 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.039 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | 0.042 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.006 | 0.042 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.005 | 0.037 |
| | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.032 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.004 | 0.029 |
| | 13-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.005 | 0.032 |
| | 29-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.009 | 0.03 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.034 |
| | 08-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.032 |
| | 24-Nov-08 | Maxx | < 0.1 | < 1 | 0.006 | 0.003 | 0.029 |
| | 29-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.028 | 0.053 |
| | 24-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.004 | 0.039 |
| | 25-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.037 |
| | 16-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.043 |
| | 18-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.011 | 0.053 |
| | 20-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.009 | 0.042 |
| **Monitor** C9-I Outwash 5.8 - 7.3 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | < 0.005 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | < 0.001 | < 0.005 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.001 | < 0.05 | 0.011 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.006 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.005 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 13-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.009 |
| | 29-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | < 0.005 |
| | 08-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 29-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 23-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 25-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 16-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.005 |
| | 18-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.006 |
| | 20-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C2: Routine Groundwater Quality - Trace Metels Analysis - - Eastview Road Landfill Site

| | | | Trace Elements | | | | |
|---|---|---|---|---|---|---|---|
| | Date | | I mg/L | Br mg/L | Cr mg/L | Ni mg/L | Zn mg/L |
| | ODWS | Lab | | | 0.05 h | | 5.0 a |
| **Monitor** C10-I Outwash 6.9 - 8.5 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | < 0.001 | < 0.005 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | < 0.001 | < 0.005 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.0005 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | < 0.005 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 13-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 29-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 08-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 24-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 29-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 23-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 25-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| | 16-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.007 |
| | 18-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | 0.009 |
| | 20-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | < 0.001 | < 0.005 |
| **Monitor** C11-I Outwash 5.9 - 7.4 m | 11-Apr-05 | Philip | < 0.1 | < 0.5 | < 0.005 | 0.002 | 0.097 |
| | 21-Jun-05 | MAX | < 0.1 | < 0.35 | < 0.005 | 0.002 | 0.082 |
| | 31-Aug-05 | MAX | < 0.1 | < 1 | < 0.001 | 0.001 | 0.042 |
| | 15-Nov-05 | MAX | | < 1 | < 0.005 | 0.003 | 0.043 |
| | 28-Apr-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.079 |
| | 07-Jun-06 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.08 |
| | 30-Aug-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | 0.077 |
| | 24-Nov-06 | MAX | < 0.1 | < 1 | < 0.005 | 0.002 | 0.078 |
| | 10-Apr-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.092 |
| | 18-Jun-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.089 |
| | 13-Aug-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.063 |
| | 13-Nov-07 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.05 |
| | 29-Apr-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.087 |
| | 17-Jun-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.077 |
| | 08-Sep-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.066 |
| | 24-Nov-08 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.069 |
| | 29-Apr-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.097 |
| | 23-Jun-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.081 |
| | 25-Aug-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.058 |
| | 16-Nov-09 | Maxx | < 0.1 | < 1 | < 0.005 | 0.002 | 0.05 |
| | 18-May-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.003 | 0.096 |
| | 20-Oct-10 | Maxx | < 0.1 | < 1 | < 0.005 | 0.001 | 0.073 |

**NOTE: ODWS - Ontario Drinking Water Standards**
**a - Aesthetic Related Objective, h - Heath Related Objective**

# C3: Routine Surface Water Quality - General Analysis - Eastview Road Landfill Site

| SW 1 | Drainage Discharge | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab. | Field pH | Cond-uctivity | Alk. CaCO3 | Chloride mg/L | Boron mg/L | Phenol ug/L | NH3-N mg/L | Iron mg/L | Manganese mg/L | Chromium mg/L | Nickel mg/L | Zinc mg/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | TSS mg/L | Hard. CaCO3 | Un-ion. NH3-N |
| PWQO | | 6.5-8.5 | | | | 0.2 | 1.0 | | 0.30 | | 0.1 | 0.025 | 0.02 | | | | | | | 0.02 |
| 04-Apr-05 | Philip | 8.27 | 723 | 196 | 102 | < 0.01 | < 1 | < 0.03 | 0.11 | 0.016 | < 0.005 | < 0.02 | 0.027 | 66.9 | 50.5 | 17.5 | < 1 | 4 | 262 | 0.0009 |
| 30-Apr-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 16-May-05 | No Fl | | | | | | | | | | | | | | | | | | | |
| 30-Jun-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 25-Aug-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 28-Sep-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 14-Oct-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 30-Nov-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 24-Apr-06 | MAX | 7.70 | 583 | 189 | 72 | < 0.02 | < 1 | 0.17 | 0.19 | 0.01 | < 0.01 | < 0.05 | 0.02 | 59 | 45 | 15 | < 1 | 7 | 210 | 0.0014 |
| 30-Apr-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 31-May-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 09-Jun-06 | Low | | | | | | | | | | | | | | | | | | | |
| 09-Aug-06 | Low | | | | | | | | | | | | | | | | | | | |
| 14-Sep-06 | MAX | 7.50 | 854 | 282 | 102 | < 0.02 | < 1 | 0.19 | 0.59 | 0.21 | < 0.01 | < 0.05 | 0.14 | 98 | 47 | 26 | 2 | 11 | 330 | 0.0019 |
| 12-Oct-06 | MAX | 7.80 | 676 | 210 | 74 | < 0.02 | 1 | 0.58 | 0.22 | 0.02 | < 0.01 | < 0.05 | 0.04 | 74 | 43 | 17 | 2 | 2 | 240 | 0.0075 |
| 13-Dec-06 | MAX | 7.30 | 625 | 233 | 58 | 0.03 | 1 | 0.15 | 0.17 | 0.02 | < 0.01 | < 0.05 | 0.02 | 70 | 39 | 17 | 1 | 3 | 240 | 0.0004 |
| 23-Mar-07 | Maxx | 7.40 | 661 | 207 | 71 | < 0.02 | < 1 | 0.24 | 0.21 | 0.03 | < 0.01 | < 0.05 | 0.03 | 63 | 43 | 16 | 1 | 3 | 230 | 0.0007 |
| 26-Apr-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 17-May-07 | Maxx | 7.60 | 688 | 237 | 80 | 0.02 | < 1 | 0.12 | 0.25 | 0.03 | < 0.01 | < 0.05 | 0.03 | 72 | 47 | 18 | 1 | < 10 | 250 | 0.0012 |
| 19-Jun-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 10-Aug-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 26-Sep-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 10-Oct-07 | Low | | | | | | | | | | | | | | | | | | | |
| 31-Oct-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 29-Nov-07 | Maxx | 6.90 | 752 | 170 | 100 | < 0.02 | < 1 | 0.16 | 0.36 | 0.11 | < 0.01 | < 0.05 | 0.1 | 71 | 51 | 16 | 3 | 51 | 230 | 0.0001 |
| 09-Apr-08 | Maxx | 7.10 | 715 | 148 | 110 | < 0.02 | < 1 | 0.13 | 0.05 | < 0.01 | < 0.01 | < 0.05 | 0.03 | 66 | 60 | 16 | < 1 | < 10 | 210 | 0.0003 |
| 20-Aug-08 | Dry | | | | | | | | | | | | | | | | | | | |
| 16-Sep-08 | Maxx | 7.40 | 698 | 214 | 68 | 0.02 | 2 | < 0.05 | 0.24 | 0.04 | < 0.01 | < 0.05 | 0.04 | 80 | 47 | 19 | 1 | < 10 | 250 | 0.0004 |
| 18-Dec-08 | Maxx | 8.10 | 734 | 225 | 82 | < 0.02 | < 1 | < 0.05 | 0.84 | 0.04 | < 0.01 | < 0.05 | 0.07 | 74 | 55 | 19 | 1 | 35 | 260 | 0.0007 |
| 28-May-09 | Maxx | 7.50 | 831 | 242 | 120 | < 0.02 | < 1 | 0.10 | 0.75 | 0.14 | < 0.01 | < 0.05 | 0.05 | 74 | 62 | 18 | 1 | 5 | 270 | 0.0008 |
| 27-Jul-09 | Maxx | 7.60 | 841 | 288 | 89 | < 0.02 | < 1 | 0.16 | 0.51 | 0.2 | < 0.01 | < 0.05 | 0.1 | 90 | 40 | 24 | 1 | 4 | 350 | 0.0023 |
| 14-Oct-09 | Maxx | 7.50 | 912 | 254 | 120 | < 0.02 | < 1 | 0.08 | 0.7 | 0.13 | < 0.01 | < 0.05 | 0.14 | 94 | 51 | 25 | 1 | 16 | 340 | 0.0004 |
| 05-Nov-09 | Maxx | 7.40 | 997 | 275 | 130 | 0.02 | < 1 | 0.06 | 0.44 | 0.14 | < 0.01 | < 0.05 | 0.14 | 100 | 57 | 27 | < 1 | 4 | 370 | 0.0002 |
| 26-Nov-09 | Maxx | 7.60 | 1020 | 280 | 130 | < 0.02 | < 1 | 0.07 | 0.37 | 0.13 | < 0.01 | < 0.05 | 0.16 | 110 | 63 | 29 | < 1 | 2 | 380 | 0.0004 |
| 16-Dec-09 | Maxx | 7.60 | 801 | 228 | 86 | < 0.02 | < 1 | 0.08 | 0.58 | 0.05 | < 0.01 | < 0.05 | 0.08 | 84 | 41 | 21 | 2 | 17 | 300 | 0.0003 |
| 25-Mar-10 | Maxx | 7.70 | 793 | 194 | 100 | < 0.02 | < 1 | < 0.05 | 0.43 | 0.04 | < 0.01 | < 0.05 | 0.07 | 86 | 65 | 21 | < 1 | 14 | 270 | 0.0004 |
| 20-Aug-10 | Maxx | 7.80 | 888 | 284 | 100 | < 0.02 | < 1 | < 0.05 | 0.6 | 0.15 | < 0.01 | < 0.05 | 0.14 | 97 | 49 | 27 | < 1 | 23 | 350 | 0.0013 |
| 04-Oct-10 | Maxx | 6.90 | 932 | 292 | 110 | 0.03 | < 1 | < 0.05 | 0.25 | 0.1 | < 0.01 | < 0.05 | 0.2 | 100 | 60 | 30 | < 1 | 4 | 370 | 0.0001 |
| 29-Nov-10 | Maxx | 6.60 | 914 | 266 | 110 | < 0.02 | < 1 | < 0.05 | 0.34 | 0.05 | < 0.01 | < 0.05 | 0.09 | 97 | 59 | 24 | 1 | 11 | 310 | 0.0000 |

# C3: Routine Surface Water Quality - General Analysis - Eastview Road Landfill Site

| SW 2 | Ditch | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab. | Field pH | Cond-uctivity | Alk. CaCO3 | Chloride mg/L | Boron mg/L | Phenol ug/L | NH3-N mg/L | Iron mg/L | Manganese mg/L | Chromium mg/L | Nickel mg/L | Zinc mg/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | TSS mg/L | Hard. CaCO3 | Un-ion. NH3-N |
| PWQO | | 6.5-8.5 | | | | 0.2 | 1.0 | | 0.30 | | 0.1 | 0.025 | 0.02 | | | | | | | 0.02 |
| 04-Apr-05 | Philip | 8.41 | 776 | 212 | 106 | 0.02 | < 1 | 0.05 | 0.23 | 0.026 | < 0.005 | < 0.02 | 0.055 | 72.5 | 53.2 | 17.2 | 2 | < 1 | 257.2 | 0.0016 |
| 30-Apr-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 16-May-05 | No Fl | | | | | | | | | | | | | | | | | | | |
| 30-Jun-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 25-Aug-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 28-Sep-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 14-Oct-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 30-Nov-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 24-Apr-06 | MAX | 7.70 | 761 | 290 | 86 | 0.04 | < 1 | < 0.05 | 0.31 | 0.05 | < 0.01 | < 0.05 | 0.03 | 81 | 55 | 20 | 2 | 1 | 280 | 0.0004 |
| 30-Apr-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 31-May-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 09-Jun-06 | Low | | | | | | | | | | | | | | | | | | | |
| 09-Aug-06 | Low | | | | | | | | | | | | | | | | | | | |
| 14-Sep-06 | Dry | | | | | | | | | | | | | | | | | | | |
| 12-Oct-06 | MAX | 7.40 | 896 | 296 | 113 | 0.04 | 6 | 0.06 | 1.2 | 0.19 | < 0.01 | < 0.05 | 0.02 | 93 | 62 | 21 | 4 | 3 | 300 | 0.0003 |
| 13-Dec-06 | MAX | 7.20 | 736 | 280 | 66 | 0.03 | < 1 | 0.23 | 0.25 | 0.06 | < 0.01 | < 0.05 | 0.02 | 85 | 39 | 21 | 1 | < 1 | 290 | 0.0005 |
| 23-Mar-07 | Maxx | 7.50 | 496 | 149 | 50 | < 0.02 | 1 | 0.76 | 0.27 | 0.05 | < 0.01 | < 0.05 | 0.03 | 46 | 26 | 11 | 3 | 2 | 170 | 0.0029 |
| 26-Apr-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 17-May-07 | Maxx | 7.60 | 857 | 246 | 120 | 0.05 | < 1 | 0.13 | 2.8 | 0.13 | < 0.01 | < 0.05 | 0.12 | 80 | 68 | 18 | 2 | < 10 | 270 | 0.0013 |
| 19-Jun-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Aug-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 26-Sep-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Oct-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 31-Oct-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 29-Nov-07 | Snow | | | | | | | | | | | | | | | | | | | |
| 09-Apr-08 | Maxx | 7.10 | 519 | 129 | 62 | 0.03 | < 1 | 0.10 | 0.32 | 0.05 | < 0.01 | < 0.05 | 0.13 | 53 | 36 | 11 | 2 | < 10 | 160 | 0.0002 |
| 20-Aug-08 | Dry | | | | | | | | | | | | | | | | | | | |
| 16-Sep-08 | Maxx | 7.40 | 512 | 196 | 31 | 0.09 | < 1 | 0.05 | 1.8 | 0.18 | < 0.01 | < 0.05 | 0.04 | 75 | 22 | 13 | 2 | 17 | 210 | 0.0004 |
| 18-Dec-08 | Maxx | 7.60 | 722 | 253 | 57 | 0.05 | < 1 | 0.17 | 1.5 | 0.17 | < 0.01 | < 0.05 | 0.11 | 89 | 36 | 19 | 3 | < 10 | 300 | 0.0010 |
| 28-May-09 | Maxx | 7.40 | 614 | 150 | 84 | 0.02 | < 1 | 0.09 | 1.1 | 0.09 | < 0.01 | < 0.05 | 0.03 | 46 | 50 | 15 | 3 | 5 | 170 | 0.0006 |
| 27-Jul-09 | Maxx | 8.10 | 364 | 92 | 40 | < 0.02 | < 1 | < 0.05 | 0.85 | 0.08 | < 0.01 | < 0.05 | 0.01 | 25 | 23 | 13 | 2 | 11 | 110 | 0.0025 |
| 14-Oct-09 | Maxx | 7.60 | 595 | 173 | 63 | 0.03 | < 1 | 0.11 | 1.9 | 0.17 | < 0.01 | < 0.05 | 0.03 | 66 | 40 | 11 | 2 | 12 | 210 | 0.0006 |
| 05-Nov-09 | Maxx | 7.50 | 734 | 178 | 100 | 0.04 | < 1 | 0.14 | 1.9 | 0.37 | < 0.01 | < 0.05 | 0.01 | 66 | 59 | 12 | 3 | 7 | 220 | 0.0006 |
| 26-Nov-09 | Maxx | 7.80 | 517 | 140 | 57 | 0.02 | < 1 | 0.10 | 0.87 | 0.1 | < 0.01 | < 0.05 | 0.01 | 52 | 38 | 11 | 2 | 10 | 170 | 0.0012 |
| 16-Dec-09 | Maxx | 7.80 | 650 | 181 | 59 | < 0.02 | < 1 | 0.07 | 0.37 | 0.07 | < 0.01 | < 0.05 | 0.02 | 68 | 32 | 14 | 1 | 1 | 240 | 0.0006 |
| 25-Mar-10 | Maxx | 7.90 | 996 | 229 | 150 | 0.05 | < 1 | 0.07 | 0.83 | 0.15 | < 0.01 | < 0.05 | 0.13 | 90 | 84 | 19 | 2 | 5 | 300 | 0.0008 |
| 20-Aug-10 | Maxx | 8.00 | 903 | 292 | 99 | 0.05 | < 1 | 0.09 | 1.2 | 0.08 | < 0.01 | < 0.05 | 0.09 | 100 | 53 | 28 | < 1 | 22 | 360 | 0.0033 |
| 04-Oct-10 | Maxx | 7.10 | 1030 | 256 | 170 | 0.05 | < 1 | 0.13 | 1.4 | 0.39 | < 0.01 | < 0.05 | 0.02 | 87 | 110 | 18 | 3 | 6 | 280 | 0.0003 |
| 29-Nov-10 | Maxx | 7.00 | 791 | 249 | 83 | 0.05 | < 1 | 0.17 | 1.3 | 0.17 | < 0.01 | < 0.05 | 0.06 | 89 | 52 | 20 | 3 | 7 | 260 | 0.0002 |

# C3: Routine Surface Water Quality - General Analysis - Eastview Road Landfill Site

| SW 3A | Hadati Creek | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab. | Field pH | Cond-uctivity | Alk. CaCO3 | Chloride mg/L | Boron mg/L | Phenol ug/L | NH3-N mg/L | Iron mg/L | Manganese mg/L | Chromium mg/L | Nickel mg/L | Zinc mg/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | TSS mg/L | Hard. CaCO3 | Un-ion. NH3-N |
| PWQO | | 6.5-8.5 | | | | 0.2 | 1.0 | | 0.30 | | 0.1 | 0.025 | 0.02 | | | | | | | 0.02 |
| 04-Apr-05 | Philip | 8.08 | 767 | 204 | 109 | < 0.01 | 1 | 0.03 | 0.26 | 0.032 | < 0.005 | < 0.02 | 0.038 | 71.2 | 55.2 | 18 | < 1 | 5 | 266.4 | 0.0005 |
| 30-Apr-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 16-May-05 | No Fl | | | | | | | | | | | | | | | | | | | |
| 30-Jun-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 25-Aug-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 28-Sep-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 14-Oct-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 30-Nov-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 24-Apr-06 | MAX | 7.80 | 645 | 212 | 77 | < 0.02 | < 1 | < 0.05 | 0.42 | 0.04 | < 0.01 | < 0.05 | 0.03 | 65 | 48 | 16 | 2 | 4 | 230 | 0.0005 |
| 30-Apr-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 31-May-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 09-Jun-06 | Low | | | | | | | | | | | | | | | | | | | |
| 09-Aug-06 | Low | | | | | | | | | | | | | | | | | | | |
| 14-Sep-06 | Dry | | | | | | | | | | | | | | | | | | | |
| 12-Oct-06 | MAX | 7.60 | 771 | 244 | 94 | 0.03 | 3 | 0.07 | 0.56 | 0.08 | < 0.01 | < 0.05 | 0.04 | 80 | 52 | 18 | 3 | 2 | 260 | 0.0005 |
| 13-Dec-06 | MAX | 7.40 | 668 | 247 | 63 | 0.03 | < 1 | 0.30 | 0.37 | 0.05 | < 0.01 | < 0.05 | 0.03 | 76 | 40 | 19 | 1 | 6 | 260 | 0.0010 |
| 23-Mar-07 | Maxx | 7.60 | 620 | 191 | 68 | < 0.02 | < 1 | 0.26 | 0.29 | 0.04 | < 0.01 | < 0.05 | 0.03 | 57 | 36 | 14 | 1 | 5 | 210 | 0.0012 |
| 26-Apr-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 17-May-07 | Maxx | 8.00 | 740 | 243 | 88 | 0.03 | 1 | 0.17 | 0.57 | 0.07 | < 0.01 | < 0.05 | 0.04 | 77 | 52 | 19 | 2 | 19 | 270 | 0.0040 |
| 19-Jun-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 10-Aug-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Aug-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Aug-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 10-Aug-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 26-Sep-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Oct-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 31-Oct-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 29-Nov-07 | Maxx | 7.00 | 892 | 212 | 120 | 0.03 | < 1 | 0.16 | 0.38 | 0.03 | < 0.01 | < 0.05 | 0.04 | 83 | 63 | 18 | 3 | < 10 | 270 | 0.0002 |
| 09-Apr-08 | Maxx | 7.10 | 690 | 149 | 99 | 0.02 | < 1 | 0.11 | 0.12 | 0.02 | < 0.01 | < 0.05 | 0.05 | 61 | 51 | 14 | < 1 | < 10 | 200 | 0.0003 |
| 20-Aug-08 | Dry | | | | | | | | | | | | | | | | | | | |
| 16-Sep-08 | Maxx | 7.50 | 609 | 213 | 48 | 0.06 | < 1 | < 0.05 | 1.1 | 0.14 | < 0.01 | < 0.05 | 0.04 | 80 | 36 | 16 | 1 | 15 | 230 | 0.0004 |
| 18-Dec-08 | Maxx | 7.90 | 768 | 238 | 82 | < 0.02 | < 1 | 0.06 | 0.44 | 0.09 | < 0.01 | < 0.05 | 0.07 | 80 | 50 | 19 | 2 | < 10 | 280 | 0.0005 |
| 28-May-09 | Maxx | 7.50 | 826 | 214 | 130 | < 0.02 | < 1 | 0.11 | 0.76 | 0.12 | < 0.01 | < 0.05 | 0.04 | 65 | 68 | 18 | 2 | 4 | 250 | 0.0008 |
| 27-Jul-09 | Maxx | 7.90 | 483 | 135 | 44 | < 0.02 | < 1 | 0.07 | 0.72 | 0.05 | < 0.01 | < 0.05 | 0.02 | 39 | 30 | 15 | 2 | 10 | 170 | 0.0021 |
| 14-Oct-09 | Maxx | 7.60 | 884 | 252 | 110 | 0.03 | < 1 | 0.06 | 0.79 | 0.1 | < 0.01 | < 0.05 | 0.05 | 85 | 53 | 21 | 2 | 10 | 310 | 0.0004 |
| 05-Nov-09 | Maxx | 7.80 | 994 | 272 | 140 | 0.04 | < 1 | 0.11 | 0.58 | 0.12 | < 0.01 | < 0.05 | 0.06 | 100 | 70 | 24 | 2 | 11 | 340 | 0.0010 |
| 26-Nov-09 | Maxx | 8.00 | 775 | 215 | 94 | 0.02 | < 1 | 0.07 | 0.68 | 0.11 | < 0.01 | < 0.05 | 0.05 | 78 | 52 | 19 | 2 | 3 | 270 | 0.0012 |
| 16-Dec-09 | Maxx | 8.00 | 762 | 214 | 80 | < 0.02 | < 1 | 0.09 | 1 | 0.1 | < 0.01 | < 0.05 | 0.06 | 81 | 41 | 19 | 1 | 25 | 280 | 0.0012 |
| 25-Mar-10 | Maxx | 7.80 | 861 | 210 | 120 | < 0.02 | < 1 | < 0.05 | 0.38 | 0.07 | < 0.01 | < 0.05 | 0.07 | 88 | 69 | 21 | < 1 | 7 | 280 | 0.0005 |
| 20-Aug-10 | Maxx | 8.20 | 900 | 291 | 100 | 0.04 | < 1 | < 0.05 | 1.4 | 0.09 | < 0.01 | < 0.05 | 0.06 | 100 | 54 | 29 | < 1 | 120 | 350 | 0.0034 |
| 04-Oct-10 | Maxx | 7.60 | 989 | 291 | 130 | 0.05 | < 1 | < 0.05 | 0.57 | 0.12 | < 0.01 | < 0.05 | 0.09 | 99 | 74 | 28 | 2 | 5 | 360 | 0.0004 |
| 29-Nov-10 | Maxx | 7.00 | 917 | 269 | 110 | 0.02 | < 1 | 0.06 | 0.47 | 0.1 | < 0.01 | < 0.05 | 0.07 | 97 | 62 | 24 | 2 | 2 | 310 | 0.0001 |

# C3: Routine Surface Water Quality - General Analysis - Eastview Road Landfill Site

| SW 4 | | Wetland Discharge | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab. | Field pH | Cond-uctivity | Alk. CaCO3 | Chloride mg/L | Boron mg/L | Phenol ug/L | NH3-N mg/L | Iron mg/L | Manganese mg/L | Chromium mg/L | Nickel mg/L | Zinc mg/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | TSS mg/L | Hard. CaCO3 | Un-ion. NH3-N |
| PWQO | | 6.5-8.5 | | | | 0.2 | 1.0 | | 0.30 | | 0.1 | 0.025 | 0.02 | | | | | | | 0.02 |
| 04-Apr-05 | Philip | 7.94 | 469 | 164 | 45.2 | 0.02 | 1 | 0.06 | 0.13 | 0.011 | < 0.005 | < 0.02 | 0.005 | 58 | 22.5 | 13.5 | 3 | < 1 | 198.9 | 0.0007 |
| 30-Apr-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 16-May-05 | No Fl | | | | | | | | | | | | | | | | | | | |
| 25-Aug-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 28-Sep-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 30-Nov-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 24-Apr-06 | MAX | 7.80 | 476 | 206 | 32 | < 0.02 | < 1 | 0.09 | 0.21 | 0.07 | < 0.01 | < 0.05 | < 0.01 | 64 | 18 | 14 | 4 | 1 | 210 | 0.0010 |
| 30-Apr-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 31-May-06 | Dry | | | | | | | | | | | | | | | | | | | |
| 09-Aug-06 | Dry | | | | | | | | | | | | | | | | | | | |
| 14-Sep-06 | Dry | | | | | | | | | | | | | | | | | | | |
| 12-Oct-06 | MAX | 7.40 | 456 | 201 | 25 | 0.04 | 12 | 0.27 | 1.2 | 0.8 | < 0.01 | < 0.05 | 0.02 | 68 | 8.4 | 13 | 6 | 10 | 230 | 0.0012 |
| 13-Dec-06 | MAX | 7.10 | 464 | 188 | 33 | < 0.02 | 1 | 0.20 | 0.2 | 0.15 | < 0.01 | < 0.05 | < 0.01 | 58 | 16 | 13 | 2 | < 1 | 200 | 0.0003 |
| 23-Mar-07 | Maxx | 7.80 | 313 | 107 | 22 | < 0.02 | 2 | 0.40 | 0.21 | 0.05 | < 0.01 | < 0.05 | 0.01 | 35 | 10 | 7.8 | 3 | 2 | 120 | 0.0029 |
| 26-Apr-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 17-May-07 | Maxx | 7.60 | 551 | 224 | 41 | 0.03 | 3 | 0.16 | 0.96 | 0.1 | < 0.01 | < 0.05 | < 0.01 | 67 | 20 | 15 | 4 | 12 | 240 | 0.0015 |
| 10-Aug-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 26-Sep-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Oct-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 31-Oct-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 29-Nov-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 09-Apr-08 | Maxx | 7.10 | 291 | 100 | 22 | < 0.02 | < 1 | 0.07 | 0.07 | 0.04 | < 0.01 | < 0.05 | 0.01 | 36 | 12 | 7.8 | 2 | < 10 | 110 | 0.0002 |
| 20-Aug-08 | Dry | | | | | | | | | | | | | | | | | | | |
| 16-Sep-08 | Maxx | 7.60 | 493 | 208 | 19 | 0.09 | < 1 | < 0.05 | 0.21 | 0.1 | < 0.01 | < 0.05 | < 0.01 | 71 | 13 | 12 | 1 | < 10 | 230 | 0.0006 |
| 18-Dec-08 | Maxx | 7.60 | 645 | 265 | 38 | 0.03 | < 1 | 0.12 | 0.21 | 0.11 | < 0.01 | < 0.05 | < 0.01 | 89 | 21 | 18 | 2 | < 10 | 290 | 0.0005 |
| 28-May-09 | Maxx | 8.40 | 378 | 92 | 45 | < 0.02 | < 1 | 0.09 | 1.4 | 0.07 | < 0.01 | < 0.05 | 0.04 | 27 | 25 | 13 | 3 | 30 | 110 | 0.0065 |
| 27-Jul-09 | Maxx | 8.90 | 266 | 69 | 26 | < 0.02 | < 1 | 0.07 | 1 | 0.07 | < 0.01 | < 0.05 | 0.03 | 22 | 13 | 12 | 2 | 28 | 100 | |
| 14-Oct-09 | Maxx | | | | | | | | | | | | | | | | | | | |
| 05-Nov-09 | Maxx | 8.10 | 331 | 105 | 26 | < 0.02 | < 1 | 0.07 | 0.4 | 0.04 | < 0.01 | < 0.05 | 0.01 | 35 | 16 | 7.9 | 2 | 8 | 120 | |
| 26-Nov-09 | Maxx | 8.50 | 317 | 105 | 18 | < 0.02 | < 1 | < 0.05 | 0.25 | 0.02 | < 0.01 | < 0.05 | 0.01 | 37 | 10 | 9.5 | 2 | 8 | 130 | |
| 16-Dec-09 | Maxx | 8.50 | 566 | 166 | 42 | < 0.02 | < 1 | < 0.05 | 0.11 | 0.03 | < 0.01 | < 0.05 | < 0.01 | 66 | 23 | 14 | 1 | 2 | 230 | |
| 25-Mar-10 | Maxx | 7.50 | 811 | 168 | 140 | 0.03 | < 1 | < 0.05 | 0.17 | 0.07 | < 0.01 | < 0.05 | 0.01 | 68 | 65 | 15 | 4 | 4 | 220 | 0.0002 |
| 20-Aug-10 | Maxx | 9.40 | 378 | 94 | 48 | 0.03 | < 1 | < 0.05 | 1.6 | 0.14 | < 0.01 | < 0.05 | 0.03 | 32 | 34 | 9.6 | 2 | 57 | 100 | 0.0271 |
| 04-Oct-10 | Maxx | 7.60 | 289 | 103 | 21 | < 0.02 | < 1 | < 0.05 | 1.1 | 0.05 | < 0.01 | < 0.05 | 0.03 | 35 | 13 | 7.5 | 2 | 34 | 110 | 0.0004 |
| 29-Nov-10 | Maxx | 7.20 | 510 | 192 | 33 | 0.02 | < 1 | 0.11 | 0.8 | 0.09 | < 0.01 | < 0.05 | 0.02 | 64 | 20 | 15 | 4 | 16 | 200 | 0.0002 |

# C3: Routine Surface Water Quality - General Analysis - Eastview Road Landfill Site

| SW 5 | | Discharge to Site | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab. | Field pH | Cond-uctivity | Alk. CaCO3 | Chloride mg/L | Boron mg/L | Phenol ug/L | NH3-N mg/L | Iron mg/L | Manganese mg/L | Chromium mg/L | Nickel mg/L | Zinc mg/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | TSS mg/L | Hard. CaCO3 | Un-ion. NH3-N |
| PWQO | | 6.5-8.5 | | | | 0.2 | 1.0 | | 0.30 | | 0.1 | 0.025 | 0.02 | | | | | | | 0.02 |
| 04-Apr-05 | Philip | 8.51 | 1131 | 242 | 212 | 0.01 | < 1 | 0.07 | 0.18 | 0.025 | < 0.005 | < 0.02 | 0.027 | 85 | 119 | 19.9 | 2 | 6 | 298.2 | 0.0030 |
| 30-Apr-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 16-May-05 | No Fl | | | | | | | | | | | | | | | | | | | |
| 30-Jun-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 25-Aug-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 28-Sep-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 14-Oct-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 30-Nov-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 24-Apr-06 | MAX | 7.80 | 992 | 345 | 114 | 0.04 | < 1 | < 0.05 | 0.1 | 0.02 | < 0.01 | < 0.05 | 0.02 | 93 | 84 | 23 | 2 | < 1 | 320 | 0.0005 |
| 30-Apr-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 31-May-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 09-Jun-06 | Low | | | | | | | | | | | | | | | | | | | |
| 09-Aug-06 | Low | | | | | | | | | | | | | | | | | | | |
| 14-Sep-06 | Dry | | | | | | | | | | | | | | | | | | | |
| 12-Oct-06 | MAX | 7.70 | 1100 | 355 | 144 | 0.03 | < 1 | 0.14 | 0.52 | 0.08 | < 0.01 | < 0.05 | 0.03 | 120 | 100 | 25 | 2 | 12 | 380 | 0.0014 |
| 13-Dec-06 | MAX | 7.40 | 880 | 320 | 86 | 0.03 | < 1 | 0.17 | 0.55 | 0.05 | < 0.01 | < 0.05 | 0.03 | 85 | 61 | 20 | 2 | 10 | 310 | 0.0006 |
| 23-Mar-07 | Maxx | 8.00 | 1050 | 322 | 120 | < 0.02 | 1 | 0.23 | 0.33 | 0.07 | < 0.01 | < 0.05 | 0.02 | 85 | 64 | 20 | 2 | 9 | 340 | 0.0030 |
| 26-Apr-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 17-May-07 | Maxx | 8.40 | 1200 | 376 | 160 | 0.04 | < 1 | 0.21 | 0.47 | 0.08 | < 0.01 | < 0.05 | 0.03 | 120 | 91 | 27 | 2 | < 10 | 400 | 0.0114 |
| 19-Jun-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Aug-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 26-Sep-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Oct-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 31-Oct-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 29-Nov-07 | Maxx | 6.90 | 1460 | 102 | 370 | < 0.02 | < 1 | 0.79 | 0.16 | 0.02 | < 0.01 | < 0.05 | 0.07 | 48 | 210 | 8.2 | 1 | 10 | 140 | 0.0007 |
| 09-Apr-08 | Maxx | 7.10 | 960 | 256 | 130 | 0.03 | < 1 | 0.07 | 0.11 | < 0.01 | < 0.01 | < 0.05 | 0.03 | 82 | 87 | 18 | 2 | < 10 | 260 | 0.0002 |
| 20-Aug-08 | Dry | | | | | | | | | | | | | | | | | | | |
| 16-Sep-08 | Maxx | 7.20 | 1570 | 364 | 230 | 0.05 | 3 | < 0.05 | 0.34 | 0.14 | < 0.01 | < 0.05 | 0.02 | 120 | 140 | 27 | 1 | < 10 | 400 | 0.0002 |
| 18-Dec-08 | Maxx | 7.90 | 1090 | 382 | 120 | < 0.02 | < 1 | < 0.05 | 0.04 | 0.02 | < 0.01 | < 0.05 | 0.02 | 110 | 85 | 25 | 2 | < 10 | 370 | 0.0004 |
| 28-May-09 | Maxx | 7.60 | 756 | 204 | 110 | < 0.02 | < 1 | 0.09 | 0.62 | 0.05 | < 0.01 | < 0.05 | 0.03 | 56 | 73 | 12 | 3 | 11 | 190 | 0.0010 |
| 27-Jul-09 | Maxx | 7.60 | 1470 | 315 | 270 | 0.03 | < 1 | 0.34 | 1.1 | 0.17 | < 0.01 | < 0.05 | 0.04 | 110 | 150 | 23 | 2 | 9 | 340 | 0.0048 |
| 14-Oct-09 | Maxx | 7.60 | 2090 | 337 | 430 | 0.03 | < 1 | 0.70 | 1.1 | 0.25 | < 0.01 | < 0.05 | 0.03 | 94 | 280 | 17 | 2 | 15 | 320 | 0.0040 |
| 05-Nov-09 | Maxx | 8.00 | 233 | 67 | 30 | < 0.02 | 4 | 0.68 | 0.51 | 0.06 | < 0.01 | < 0.05 | 0.06 | 21 | 21 | 3.1 | 4 | 13 | 61 | 0.0097 |
| 26-Nov-09 | Maxx | 8.00 | 146 | 39 | 15 | < 0.02 | < 1 | 0.33 | 0.4 | 0.02 | < 0.01 | < 0.05 | 0.05 | 16 | 17 | 2.4 | < 1 | 5 | 40 | 0.0057 |
| 16-Dec-09 | Maxx | 8.00 | 519 | 182 | 21 | < 0.02 | < 1 | < 0.05 | 0.12 | < 0.01 | < 0.01 | < 0.05 | < 0.01 | 70 | 8.7 | 17 | 4 | 2 | 240 | 0.0007 |
| 25-Mar-10 | Maxx | 7.30 | 1510 | 335 | 250 | 0.03 | < 1 | 0.11 | 0.81 | 0.09 | < 0.01 | < 0.05 | 0.06 | 120 | 170 | 27 | 2 | 6 | 360 | 0.0003 |
| 20-Aug-10 | Maxx | 8.40 | 859 | 270 | 77 | 0.03 | < 1 | < 0.05 | 0.51 | 0.04 | < 0.01 | < 0.05 | 0.07 | 100 | 44 | 29 | 3 | 26 | 360 | 0.0046 |
| 04-Oct-10 | Maxx | 7.00 | 930 | 306 | 110 | 0.02 | < 1 | < 0.05 | 4.6 | 0.67 | < 0.01 | < 0.05 | 0.02 | 100 | 78 | 21 | 4 | 13 | 330 | 0.0001 |
| 29-Nov-10 | Maxx | 7.10 | 603 | 213 | 38 | < 0.02 | < 1 | < 0.05 | 1.7 | 0.07 | < 0.01 | < 0.05 | 0.03 | 84 | 20 | 19 | 3 | 12 | 240 | 0.0001 |

# C3: Routine Surface Water Quality - General Analysis - Eastview Road Landfill Site

| SW 7 | | Background | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Lab. | Field pH | Cond-uctivity | Alk. CaCO3 | Chloride mg/L | Boron mg/L | Phenol ug/L | NH3-N mg/L | Iron mg/L | Manganese mg/L | Chromium mg/L | Nickel mg/L | Zinc mg/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | TSS mg/L | Hard. CaCO3 | Un-ion. NH3-N |
| PWQO | | 6.5-8.5 | | | | 0.2 | 1.0 | | 0.30 | | 0.1 | 0.025 | 0.02 | | | | | | | 0.02 |
| 04-Apr-05 | Philip | 8.00 | 604 | 140 | 98.3 | < 0.01 | < 1 | 0.04 | 0.63 | 0.061 | < 0.005 | < 0.02 | 0.033 | 47.5 | 49 | 12.8 | < 1 | 8 | 182.7 | 0.0005 |
| 30-Apr-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 16-May-05 | No Fl | | | | | | | | | | | | | | | | | | | |
| 30-Jun-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 25-Aug-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 28-Sep-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 14-Oct-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 30-Nov-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 24-Apr-06 | MAX | 7.80 | 474 | 170 | 48 | < 0.02 | < 1 | < 0.05 | 0.89 | 0.07 | < 0.01 | < 0.05 | 0.04 | 52 | 31 | 15 | 2 | 2 | 170 | 0.0005 |
| 30-Apr-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 31-May-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 09-Jun-06 | Low | | | | | | | | | | | | | | | | | | | |
| 09-Aug-06 | Low | | | | | | | | | | | | | | | | | | | |
| 14-Sep-06 | MAX | 7.90 | 341 | 124 | 24 | < 0.02 | < 1 | 0.11 | 2.3 | 0.15 | < 0.01 | < 0.05 | 0.07 | 39 | 15 | 14 | 3 | 23 | 130 | 0.0028 |
| 12-Oct-06 | MAX | 7.80 | 414 | 150 | 33 | < 0.02 | 3 | 0.20 | 3.7 | 0.3 | < 0.01 | < 0.05 | 0.11 | 54 | 20 | 13 | 3 | 23 | 170 | 0.0023 |
| 13-Dec-06 | MAX | 7.40 | 528 | 182 | 56 | < 0.02 | 2 | 0.44 | 1 | 0.3 | < 0.01 | < 0.05 | 0.04 | 56 | 34 | 15 | 2 | 5 | 190 | 0.0015 |
| 23-Mar-07 | Maxx | 7.00 | 633 | 205 | 70 | < 0.02 | 1 | 0.34 | 2.8 | 0.61 | < 0.01 | < 0.05 | 0.08 | 62 | 38 | 16 | 2 | 41 | 210 | 0.0004 |
| 26-Apr-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 17-May-07 | Maxx | 8.00 | 544 | 187 | 60 | < 0.02 | 2 | 0.18 | 2.8 | 0.19 | < 0.01 | < 0.05 | 0.09 | 59 | 33 | 16 | 2 | 49 | 200 | 0.0041 |
| 19-Jun-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Aug-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 26-Sep-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Oct-07 | Maxx | 7.10 | 372 | 123 | 22 | 0.05 | < 1 | 0.09 | 1.4 | 0.16 | < 0.01 | < 0.05 | 0.03 | 39 | 11 | 10 | 3 | 22 | 140 | 0.0003 |
| 31-Oct-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 29-Nov-07 | Maxx | 7.00 | 1160 | 135 | 240 | < 0.02 | < 1 | 0.13 | 0.99 | 0.11 | < 0.01 | < 0.05 | 0.05 | 48 | 150 | 12 | 3 | 14 | 150 | 0.0001 |
| 09-Apr-08 | Maxx | 7.10 | 580 | 118 | 87 | < 0.02 | < 1 | 0.06 | 0.64 | 0.2 | < 0.01 | < 0.05 | 0.04 | 52 | 45 | 13 | < 1 | < 10 | 160 | 0.0001 |
| 20-Aug-08 | Dry | | | | | | | | | | | | | | | | | | | |
| 16-Sep-08 | Maxx | 7.90 | 394 | 136 | 35 | 0.04 | < 1 | < 0.05 | 1.9 | 0.13 | < 0.01 | < 0.05 | 0.05 | 46 | 19 | 10 | 4 | 30 | 140 | 0.0013 |
| 18-Dec-08 | Maxx | 7.60 | 849 | 263 | 110 | < 0.02 | 7 | 0.10 | 2.7 | 1.1 | < 0.01 | < 0.05 | 0.04 | 75 | 69 | 20 | 5 | 10 | 260 | 0.0005 |
| 28-May-09 | Maxx | 7.40 | 706 | 167 | 100 | 0.03 | < 1 | 0.26 | 0.9 | 0.14 | < 0.01 | < 0.05 | 0.03 | 50 | 51 | 21 | 3 | 13 | 200 | 0.0016 |
| 27-Jul-09 | Maxx | 8.00 | 442 | 100 | 60 | 0.04 | < 1 | 0.11 | 1.2 | 0.09 | < 0.01 | < 0.05 | 0.04 | 35 | 29 | 15 | 2 | 23 | 140 | 0.0039 |
| 14-Oct-09 | Maxx | 7.40 | 638 | 193 | 78 | 0.04 | < 1 | 0.12 | 1.1 | 0.23 | < 0.01 | < 0.05 | 0.03 | 59 | 40 | 16 | 4 | 7 | 220 | 0.0005 |
| 05-Nov-09 | Maxx | 7.40 | 785 | 211 | 110 | 0.03 | < 1 | 0.26 | 4.7 | 0.45 | < 0.01 | < 0.05 | 0.03 | 67 | 58 | 20 | 4 | 30 | 250 | 0.0008 |
| 26-Nov-09 | Maxx | 9.80 | 562 | 169 | 56 | 0.03 | < 1 | 0.27 | 0.76 | 0.25 | < 0.01 | < 0.05 | 0.03 | 56 | 26 | 17 | 4 | 18 | 220 | 0.1415 |
| 16-Dec-09 | Maxx | 9.80 | 834 | 186 | 130 | 0.02 | 1 | 0.36 | 0.83 | 0.16 | < 0.01 | < 0.05 | 0.04 | 59 | 68 | 17 | 3 | 13 | 220 | 0.1563 |
| 25-Mar-10 | Maxx | 7.10 | 689 | 166 | 110 | 0.02 | < 1 | < 0.05 | 0.46 | 0.05 | < 0.01 | < 0.05 | 0.04 | 60 | 58 | 15 | 2 | 7 | 200 | 0.0001 |
| 20-Aug-10 | Maxx | 7.70 | 752 | 161 | 130 | 0.05 | < 1 | 0.08 | 1.4 | 0.31 | < 0.01 | < 0.05 | 0.11 | 56 | 66 | 19 | 2 | 66 | 220 | 0.0019 |
| 04-Oct-10 | Maxx | 7.40 | 546 | 159 | 64 | 0.04 | < 1 | < 0.05 | 0.69 | 0.17 | < 0.01 | < 0.05 | 0.04 | 52 | 34 | 14 | 4 | 7 | 200 | 0.0002 |
| 29-Nov-10 | Maxx | 7.40 | 613 | 182 | 73 | 0.03 | 1 | 0.07 | 0.72 | 0.07 | < 0.01 | < 0.05 | 0.03 | 61 | 39 | 17 | 5 | 13 | 200 | 0.0002 |

# C3: Routine Surface Water Quality - General Analysis - Eastview Road Landfill Site

**SW 15** **Adjacent Water Course**

| Date | Lab. | Field pH | Cond-uctivity | Alk. CaCO3 | Chloride mg/L | Boron mg/L | Phenol ug/L | NH3-N mg/L | Iron mg/L | Manganese mg/L | Chromium mg/L | Nickel mg/L | Zinc mg/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | TSS mg/L | Hard. CaCO3 | Un-ion. NH3-N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PWQO | | 6.5-8.5 | | | | 0.2 | 1.0 | | 0.30 | | 0.1 | 0.025 | 0.02 | | | | | | | 0.02 |
| 04-Apr-05 | Philip | 7.65 | 497 | 189 | 31.9 | < 0.01 | < 1 | < 0.03 | 0.05 | < 0.005 | < 0.005 | < 0.02 | < 0.005 | 59.6 | 10.6 | 18.1 | 2 | < 1 | 241.7 | 0.0002 |
| 30-Apr-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 16-May-05 | No Fl | | | | | | | | | | | | | | | | | | | |
| 30-Jun-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 25-Aug-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 28-Sep-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 14-Oct-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 30-Nov-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 24-Apr-06 | MAX | 7.60 | 540 | 243 | 29 | < 0.02 | < 1 | < 0.05 | 0.08 | < 0.01 | < 0.01 | < 0.05 | < 0.01 | 69 | 14 | 20 | 1 | 1 | 250 | 0.0004 |
| 30-Apr-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 31-May-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 09-Jun-06 | Low | | | | | | | | | | | | | | | | | | | |
| 09-Aug-06 | Low | | | | | | | | | | | | | | | | | | | |
| 14-Sep-06 | MAX | 7.30 | 648 | 309 | 45 | < 0.02 | < 1 | 0.10 | 0.44 | 0.1 | < 0.01 | < 0.05 | < 0.01 | 87 | 18 | 27 | 1 | 1 | 310 | 0.0006 |
| 12-Oct-06 | MAX | 7.70 | 646 | 271 | 47 | < 0.02 | < 1 | < 0.05 | 0.17 | 0.01 | < 0.01 | < 0.05 | < 0.01 | 81 | 15 | 25 | 2 | < 1 | 310 | 0.0005 |
| 13-Dec-06 | MAX | 7.30 | 576 | 251 | 30 | < 0.02 | < 1 | 0.16 | 0.04 | < 0.01 | < 0.01 | < 0.05 | < 0.01 | 76 | 13 | 22 | 2 | < 1 | 280 | 0.0005 |
| 23-Mar-07 | Maxx | 7.00 | 497 | 202 | 25 | < 0.02 | < 1 | 0.20 | 0.2 | 0.03 | < 0.01 | < 0.05 | < 0.01 | 57 | 10 | 17 | 2 | < 1 | 220 | 0.0003 |
| 26-Apr-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 17-May-07 | Maxx | 7.60 | 587 | 276 | 27 | < 0.02 | < 1 | 0.08 | 0.11 | 0.01 | < 0.01 | < 0.05 | < 0.01 | 74 | 13 | 22 | < 1 | < 10 | 290 | 0.0008 |
| 19-Jun-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Aug-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 26-Sep-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Oct-07 | Maxx | 7.10 | 1180 | 154 | 180 | 0.02 | < 1 | 0.66 | 0.45 | 0.22 | < 0.01 | < 0.05 | 0.06 | 110 | 88 | 23 | 6 | < 10 | 360 | 0.0022 |
| 31-Oct-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 29-Nov-07 | Maxx | 6.90 | 1290 | 147 | 55 | 0.02 | < 1 | < 0.05 | < 0.02 | 0.01 | < 0.01 | < 0.05 | 0.01 | 170 | 21 | 48 | 4 | < 10 | 630 | 0.0001 |
| 09-Apr-08 | Maxx | 7.00 | 431 | 156 | 21 | < 0.02 | < 1 | < 0.05 | 0.04 | < 0.01 | < 0.01 | < 0.05 | 0.01 | 57 | 9.9 | 15 | < 1 | < 10 | 190 | 0.0001 |
| 20-Aug-08 | Dry | | | | | | | | | | | | | | | | | | | |
| 16-Sep-08 | Maxx | 8.00 | 608 | 276 | 30 | < 0.02 | < 1 | < 0.05 | 0.39 | 0.04 | < 0.01 | < 0.05 | < 0.01 | 81 | 14 | 24 | 2 | < 10 | 290 | 0.0017 |
| 18-Dec-08 | Maxx | 7.40 | 565 | 241 | 31 | < 0.02 | < 1 | < 0.05 | 0.05 | < 0.01 | < 0.01 | < 0.05 | < 0.01 | 70 | 13 | 21 | 3 | < 10 | 260 | 0.0002 |
| 28-May-09 | Maxx | 7.20 | 630 | 304 | 25 | < 0.02 | < 1 | < 0.05 | 0.48 | 0.22 | < 0.01 | < 0.05 | < 0.01 | 82 | 13 | 24 | 1 | 2 | 300 | 0.0002 |
| 27-Jul-09 | Maxx | 7.20 | 665 | 320 | 32 | < 0.02 | < 1 | < 0.05 | 0.88 | 0.19 | < 0.01 | < 0.05 | < 0.01 | 91 | 15 | 27 | 2 | 3 | 350 | 0.0003 |
| 14-Oct-09 | Maxx | 7.00 | 661 | 288 | 43 | < 0.02 | < 1 | < 0.05 | 0.16 | 0.02 | < 0.01 | < 0.05 | < 0.01 | 83 | 18 | 27 | 2 | < 1 | 310 | 0.0001 |
| 05-Nov-09 | Maxx | 7.70 | 684 | 294 | 43 | < 0.02 | < 1 | < 0.05 | 0.14 | 0.01 | < 0.01 | < 0.05 | < 0.01 | 84 | 17 | 26 | 3 | 2 | 320 | 0.0003 |
| 26-Nov-09 | Maxx | 7.70 | 678 | 289 | 39 | < 0.02 | < 1 | < 0.05 | 0.15 | < 0.01 | < 0.01 | < 0.05 | < 0.01 | 89 | 16 | 28 | 3 | < 1 | 330 | 0.0004 |
| 16-Dec-09 | Maxx | 7.70 | 729 | 299 | 40 | < 0.02 | < 1 | < 0.05 | 0.03 | < 0.01 | < 0.01 | < 0.05 | < 0.01 | 88 | 17 | 28 | < 1 | < 1 | 350 | 0.0003 |
| 25-Mar-10 | Maxx | 7.20 | 571 | 226 | 30 | < 0.02 | < 1 | < 0.05 | 0.04 | < 0.01 | < 0.01 | < 0.05 | < 0.01 | 76 | 14 | 22 | 2 | 1 | 270 | 0.0001 |
| 20-Aug-10 | Maxx | 7.60 | 761 | 358 | 35 | < 0.02 | < 1 | 0.18 | 7.6 | 0.62 | < 0.01 | < 0.05 | < 0.01 | 110 | 19 | 31 | < 1 | 22 | 390 | 0.0029 |
| 04-Oct-10 | Maxx | 7.40 | 679 | 299 | 40 | < 0.02 | < 1 | < 0.05 | 0.26 | 0.06 | < 0.01 | < 0.05 | < 0.01 | 84 | 19 | 28 | 2 | 2 | 350 | 0.0002 |
| 29-Nov-10 | Maxx | 7.30 | 726 | 305 | 39 | < 0.02 | < 1 | < 0.05 | 0.06 | < 0.01 | < 0.01 | < 0.05 | < 0.01 | 95 | 18 | 30 | 2 | 4 | 320 | 0.0001 |

# C3: Routine Surface Water Quality - General Analysis - Eastview Road Landfill Site

**SW 16** **Discharge to Hadati Creek**

| Date | Lab. | Field pH | Cond-uctivity | Alk. CaCO3 | Chloride mg/L | Boron mg/L | Phenol ug/L | NH3-N mg/L | Iron mg/L | Manganese mg/L | Chromium mg/L | Nickel mg/L | Zinc mg/L | Ca mg/L | Na mg/L | Mg mg/L | K mg/L | TSS mg/L | Hard. CaCO3 | Un-ion. NH3-N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PWQO | | 6.5-8.5 | | | | 0.2 | 1.0 | | 0.30 | | 0.1 | 0.025 | 0.02 | | | | | | | 0.02 |
| 04-Apr-05 | Philip | 7.93 | 738 | 200 | 104 | < 0.01 | < 1 | < 0.03 | 0.26 | 0.029 | < 0.005 | < 0.02 | 0.029 | 70.8 | 54.6 | 18.6 | < 1 | 9 | 255 | 0.0003 |
| 30-Apr-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 16-May-05 | No Fl | | | | | | | | | | | | | | | | | | | |
| 30-Jun-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 25-Aug-05 | Dry | | | | | | | | | | | | | | | | | | | |
| 28-Sep-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 14-Oct-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 30-Nov-05 | N/S | | | | | | | | | | | | | | | | | | | |
| 24-Apr-06 | MAX | 7.80 | 613 | 192 | 71 | < 0.02 | < 1 | < 0.05 | 0.49 | 0.04 | < 0.01 | < 0.05 | 0.03 | 62 | 45 | 16 | 1 | 34 | 210 | 0.0005 |
| 30-Apr-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 31-May-06 | N/S | | | | | | | | | | | | | | | | | | | |
| 09-Jun-06 | Low | | | | | | | | | | | | | | | | | | | |
| 09-Aug-06 | Low | | | | | | | | | | | | | | | | | | | |
| 14-Sep-06 | MAX | 8.00 | 892 | 303 | 110 | 0.05 | < 1 | 0.28 | 1.7 | 0.19 | < 0.01 | < 0.05 | 0.09 | 100 | 56 | 28 | 2 | 35 | 340 | 0.0084 |
| 12-Oct-06 | MAX | 7.70 | 683 | 221 | 75 | < 0.02 | < 1 | 0.12 | 0.37 | 0.04 | < 0.01 | < 0.05 | 0.04 | 74 | 43 | 17 | 2 | 1 | 260 | 0.0010 |
| 13-Dec-06 | MAX | 7.40 | 623 | 233 | 59 | < 0.02 | 1 | 0.26 | 0.28 | 0.02 | < 0.01 | < 0.05 | 0.03 | 71 | 38 | 17 | 1 | 7 | 240 | 0.0008 |
| 23-Mar-07 | Maxx | 7.40 | 663 | 207 | 71 | < 0.02 | < 1 | 0.27 | 0.3 | 0.03 | < 0.01 | < 0.05 | 0.03 | 60 | 40 | 15 | 1 | 8 | 230 | 0.0009 |
| 26-Apr-07 | N/S | | | | | | | | | | | | | | | | | | | |
| 17-May-07 | Maxx | 7.90 | 693 | 237 | 79 | 0.02 | 2 | 0.12 | 0.33 | 0.03 | < 0.01 | < 0.05 | 0.03 | 70 | 46 | 18 | 1 | < 10 | 250 | 0.0020 |
| 19-Jun-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Aug-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 26-Sep-07 | Dry | | | | | | | | | | | | | | | | | | | |
| 10-Oct-07 | Maxx | 7.00 | 1810 | 424 | 280 | 0.38 | < 1 | 0.11 | 1.5 | 0.12 | < 0.01 | < 0.05 | 0.03 | 120 | 190 | 47 | 7 | 37 | 470 | 0.0003 |
| 31-Oct-07 | MAX | | | | | | | | | | | | | | | | | | | |
| 29-Nov-07 | Maxx | 7.00 | 981 | 214 | 150 | 0.03 | < 1 | 0.20 | 0.57 | 0.11 | < 0.01 | < 0.05 | 0.06 | 82 | 79 | 18 | 3 | < 10 | 270 | 0.0002 |
| 09-Apr-08 | Maxx | 7.00 | 729 | 149 | 110 | < 0.02 | < 1 | < 0.05 | 0.08 | < 0.01 | < 0.01 | < 0.05 | 0.03 | 64 | 59 | 16 | < 1 | < 10 | 200 | 0.0001 |
| 20-Aug-08 | Dry | | | | | | | | | | | | | | | | | | | |
| 16-Sep-08 | Maxx | 7.40 | 717 | 221 | 73 | 0.03 | 2 | < 0.05 | 0.32 | 0.04 | < 0.01 | < 0.05 | 0.03 | 76 | 45 | 18 | < 1 | < 10 | 260 | 0.0004 |
| 18-Dec-08 | Maxx | 7.90 | 747 | 229 | 82 | < 0.02 | < 1 | < 0.05 | 0.4 | 0.04 | < 0.01 | < 0.05 | 0.06 | 71 | 52 | 18 | < 1 | < 10 | 260 | 0.0005 |
| 28-May-09 | Maxx | 7.60 | 891 | 230 | 130 | < 0.02 | < 1 | 0.13 | 0.71 | 0.14 | < 0.01 | < 0.05 | 0.05 | 75 | 70 | 19 | 2 | 3 | 270 | 0.0011 |
| 27-Jul-09 | Maxx | 7.80 | 401 | 102 | 45 | 0.02 | < 1 | 0.06 | 0.69 | 0.04 | < 0.01 | < 0.05 | 0.02 | 28 | 25 | 13 | 3 | 8 | 120 | 0.0018 |
| 14-Oct-09 | Maxx | 7.70 | 922 | 263 | 120 | 0.03 | < 1 | 0.12 | 0.55 | 0.07 | < 0.01 | < 0.05 | 0.1 | 90 | 52 | 24 | 1 | 6 | 330 | 0.0009 |
| 05-Nov-09 | Maxx | 7.60 | 1020 | 288 | 140 | 0.03 | < 1 | 0.14 | 0.43 | 0.1 | < 0.01 | < 0.05 | 0.12 | 100 | 64 | 27 | 1 | 3 | 370 | 0.0009 |
| 26-Nov-09 | Maxx | 7.80 | 1030 | 298 | 130 | 0.03 | < 1 | 0.09 | 0.87 | 0.15 | < 0.01 | < 0.05 | 0.11 | 100 | 69 | 25 | 1 | 8 | 370 | 0.0009 |
| 16-Dec-09 | Maxx | 7.80 | 844 | 239 | 92 | < 0.02 | < 1 | 0.07 | 0.53 | 0.06 | < 0.01 | < 0.05 | 0.07 | 84 | 44 | 21 | 2 | 11 | 310 | 0.0004 |
| 25-Mar-10 | Maxx | 7.50 | 814 | 203 | 110 | < 0.02 | < 1 | < 0.05 | 0.41 | 0.04 | < 0.01 | < 0.05 | 0.07 | 85 | 63 | 21 | 1 | 12 | 270 | 0.0002 |
| 20-Aug-10 | Maxx | 7.90 | 926 | 292 | 110 | 0.05 | < 1 | 0.26 | 8.3 | 0.33 | < 0.01 | < 0.05 | 0.19 | 110 | 58 | 30 | 1 | 85 | 360 | 0.0078 |
| 04-Oct-10 | Maxx | 7.40 | 953 | 290 | 120 | 0.04 | < 1 | < 0.05 | 0.5 | 0.11 | < 0.01 | < 0.05 | 0.17 | 100 | 63 | 30 | < 1 | 4 | 380 | 0.0002 |
| 29-Nov-10 | Maxx | 6.90 | 934 | 272 | 110 | < 0.02 | < 1 | < 0.05 | 0.31 | 0.06 | < 0.01 | < 0.05 | 0.08 | 95 | 60 | 24 | < 1 | 5 | 310 | 0.0000 |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 1 | | | | | | | |
| | 10-Apr-92 | | N/A | N/A | 10 | | clear, good flow |
| | 11-Jun-92 | | 800 | 9.20 | 18 | | Numerous water insects, patchy scom on surface |
| | 13-Aug-92 | | 1000 | 7.60 | 13 | | Yellowish, some sediment, creek bottom reddish |
| | 10-Nov-92 | | 1000 | 7.60 | 7 | | Slight yellow colour, fast flow |
| | 20-Apr-93 | | 700 | 9.10 | 5 | | Dirty brown, heavy sediment. silty bottom |
| | 10-Jun-93 | | 800 | 9.20 | 14 | | Fairly clear, silty bottom |
| | 02-Sep-93 | | 700 | 7.60 | 17 | 6.79 | Clear, little flow, silty bottom, weeds |
| | 05-Nov-93 | | 1100 | 7.90 | 8 | 11.62 | Clear, little flow |
| | 30-Nov-93 | | 800 | 8.00 | 2 | 10.9 | Clear, silty bottom |
| | 13-Apr-94 | Spring Freshet | 800 | 7.40 | 5 | 5.62 | Yellow/brown colour, weeds, some sediment |
| | 04-May-94 | Spring Dry | 800 | 8.20 | 14 | 5.51 | Yellowish colour, very clear, reddish brown mud bottom |
| | 26-May-94 | Spring Rain | 700 | 8.10 | 11 | 10.17 | Brown colour, silty, high level |
| | 17-Jun-94 | June Dry | 600 | 7.10 | 20 | 10.95 | Clear yellow, biological growth on surface, slow flow |
| | 04-Aug-94 | Summer Rain | 800 | 8.00 | 15 | 10.85 | Very weedy, silty bottom, 7 cm silt up staff gauge |
| | 17-Aug-94 | August Dry | 700 | 7.10 | 13 | 9.36 | Silty/muddy/weedy bottom, algea growth in water |
| | 14-Oct-94 | Fall Dry | 800 | 7.90 | 8 | 11.35 | Yellow coloured, flow through small channels |
| | 21-Nov-94 | Fall Rain | 700 | 8.00 | 8 | 10.87 | Fairly clear, weedy |
| | 13-Apr-95 | Spring Freshet | 900 | 8.00 | 5 | 10.95 | Muddy/weedy bottom, clear/yellow coloured, algae noted at banks |
| | 28-Apr-95 | Spring Dry | 700 | 8.10 | 10 | 10.15 | Muddy/weedy bottom, clear, turtles and bugs present |
| | 17-May-95 | Spring Rain | 800 | 7.30 | 12 | 8.21 | Weedy growth present, fairly clear, silty sandy bottom, good flow |
| | 30-Jun-95 | June Dry | 800 | 7.80 | 18 | 6.34 | Clear yellowish colour |
| | 23-Aug-95 | August Dry | 800 | 7.30 | 17 | 6.33 | Fairly clear, very weedy bottom, algae |
| | 20-Oct-95 | Fall Dry | 700 | 7.80 | 12 | 7.42 | Clear yellowish colour, very weedy bottom, lots of bugs |
| | 28-Nov-95 | Fall Rain | 895 | 7.50 | 4.8 | 10 | Fairly clear, some grass and reeds |
| | 16-Apr-96 | Spring Freshet | 664 | 8.10 | 5.1 | 5.6 | Good Flow |
| | 27-May-96 | Spring Dry | 800 | 7.80 | 12 | 6.5 | Some Flow, concentrated in centre, lots of weeds |
| | 18-Jun-96 | Spring Rain | 850 | N/A | 15 | 5.5 | Some Flow, Lots of reeds |
| | 06-Aug-96 | June Dry | 900 | N/A | 12 | | Very little flow, lots of grass growing |
| | 07-Oct-96 | August Dry | N/A | N/A | N/A | N/A | Little flow, Lots of reeds |
| | 30-Oct-96 | Summer Rain | 833 | 7.80 | 8.8 | 5.1 | Good flow, some weeds |
| | 06-Dec-96 | Fall Rain | 991 | 7.60 | 4.1 | 3.9 | Good flow |
| | 16-Apr-97 | Spring Freshet | 778 | 7.60 | 6.9 | 6.3 | Good flow, some algae growing in creek |
| | 23-May-97 | Spring Dry | 775 | 7.30 | 10.2 | 6.7 | Good flow |
| | 07-Aug-97 | Summer Dry | 720 | 6.60 | 11.4 | 3.7 | Lots of Reeds, some flow |
| | 18-Nov-97 | Fall Dry | 720 | 7.50 | 5.8 | 4.9 | Some flow, clear water |
| | 26-Nov-97 | Fall Rain | 768 | 7.40 | 8 | 3.2 | Flowing, clear |
| | 17-Jun-98 | Spring Rain | 789 | 7.80 | 17.6 | 4.2 | Water moving slowly |
| | 07-Dec-98 | Fall Rain | 576 | 6.80 | 9.1 | 5.3 | Beaver dam in culvert, evidence of runoff (with sediments) from bush lot |
| | 23-Apr-99 | Spring Freshet | 556 | 7.70 | 8.3 | 5.2 | Good flow, silt in bottom of creek |
| | 30-Jun-99 | Summer Rain | N/A | N/A | N/A | N/A | |
| | 06-Dec-99 | Fall Rain | 411 | 7.10 | 9.2 | 6.2 | Some flow, murky water |
| | 15-Mar-00 | Spring Freshet | 416 | 7.50 | 4.5 | 6.5 | Some flow; Algae growing in bottom; Bushlot visibly discharging water |
| | 20-Sep-00 | Fall Dry | 260 | 7.90 | 15.3 | 3.2 | Very little flow - almost still; some surface water sediment |
| | 27-Nov-00 | Fall Rain | 514 | 6.70 | 7.3 | 4.7 | Very little flow; bits of silt present on bottom of creek bed |
| | 20-Mar-01 | Spring Freshet | 381 | 7.61 | 6.4 | 5.3 | Visible TSS, Visible discharge from Bushlot, some flow |
| | 10-Oct-01 | Fall Dry | 675 | 7.70 | 9 | 1.9 | No flow, Lots of suspended solids |
| | 03-Dec-01 | Fall rain | 670 | 7.90 | 7.9 | 3.5 | |
| | 18-Feb-02 | Spring Freshet | | | | | Not enough water to grab samples. |
| | 17-Apr-02 | April Dry | | | | | Dry Conditions with warm temperatures - no flows observed |
| | 15-May-02 | Spring Rain | | | | | No flow observed |
| | 06-Jun-02 | Summer Rain | 848 | 7.80 | 11.7 | N/A | Very little flow, water is fairly clear |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 1 | | | | | | | |
| | 17-Jun-02 | June Dry | | | | | No dry conditions due to heavy rains, Dry event could not be completed |
| | 12-Aug-02 | August Dry | | | | | No rain for 10 days, no surface water to sample |
| | 25-Oct-02 | October Dry | | | | | No more than 2 dry days in a row, no samples taken |
| | 23-Dec-02 | Fall Rain | | | | | Rains for 2 days, still not enough water to sample |
| | 18-Mar-03 | Spring Freshet | 306 | 7.40 | 5 | 8.49 | Good flow, visible TSS |
| | 28-Apr-03 | April Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 26-May-03 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 18-Jun-03 | June Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 06-Aug-03 | Summer Rain | 649 | 7.90 | 15 | 7.09 | Water but no flow, clear |
| | 26-Aug-03 | August Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 24-Oct-03 | October Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 19-Nov-03 | Fall Rain | 483 | 7.90 | 10.8 | 8.14 | Good Flow |
| | 10-Mar-04 | Spring Freshet | 649 | 7.30 | 5.2 | 7.77 | Low flow |
| | 22-Apr-04 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 27-May-04 | April Dry | 750 | 7.80 | 16.5 | 3.63 | Grate blocked with plastic. Suspect beaver dam inside culvert. Some flow. |
| | 28-Jun-04 | June Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 17-Aug-04 | August Dry | 647 | 7.80 | 15.2 | 9.52 | Some flow, algae observed on surface, some flooding due to gravel in culvert. |
| | 19-Oct-04 | Summer Rain | 981 | 8.20 | 6.3 | 8.83 | Very little flow, algae growth, clear. Silt back up is around 0.6m deep. |
| | 28-Oct-04 | October Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 08-Dec-04 | Fall Rain | 540 | 7.85 | 8 | | Some flow, clear. Silt accumulation at bottom of culvert (~0.4m). |
| | 04-Apr-05 | Spring Freshet | 601 | 8.27 | 9.2 | 6.57 | Some flow, Clear. Silt present at mouth of culvert. |
| | 30-Apr-05 | April Dry | | | | | No sample taken due to rain |
| | 16-May-05 | Spring Rain | | | | | No sample taken, not enough run-off after rain event on May 16. Very little rain during rest of month. |
| | 30-Jun-05 | June Dry | | | | | No samples taken, dry |
| | 25-Aug-05 | August Dry | | | | | No sample taken, not enough run-off even after rain event earlier in the week of Aug 25. |
| | 28-Sep-05 | Summer Rain | | | | | No sample taken, not enough run-off |
| | 14-Oct-05 | October Dry | | | | | No sample taken, Dry |
| | 30-Nov-05 | Fall Rain | | | | | No sample taken, not enough run-off |
| | 24-Apr-06 | Spring Freshet | 553 | 7.70 | 8.1 | 8.74 | Good flow, Clear |
| | 30-Apr-06 | April Dry | | | | | No Dry Period During Month |
| | 31-May-06 | Spring Rain | | | | | Rain event early in month, no run-off occuring later in month. |
| | 09-Jun-06 | June Dry | | | | | Low Water |
| | 09-Aug-06 | August Dry | | | | | Low Water |
| | 14-Sep-06 | Summer Rain | 760 | 7.50 | 17.1 | 4.11 | Very low flow |
| | 12-Oct-06 | October Dry | 606 | 7.80 | 11.4 | 5.73 | Good flow |
| | 13-Dec-06 | Fall Rain | 488 | 7.30 | 6.5 | 7.5 | Good flow, Clear. Silt build up observed. |
| | 23-Mar-07 | Spring Freshet | 471 | 7.40 | 3.9 | 6.35 | Good Flow, Clear |
| | 26-Apr-07 | April Dry | | | | | Dry |
| | 17-May-07 | Spring Rain | 715 | 7.60 | 14.4 | 4.77 | Good Flow, Clear |
| | 19-Jun-07 | June Dry | | | | | Dry, No water next day after June 9 (9.8mm) and June 19 (22.4mm). |
| | 10-Aug-07 | August Dry | | | | | Dry, No water next day after largest rain event on August 7 (18mm). |
| | 26-Sep-07 | Summer Rain | | | | | Dry. No water next day after last rain event on Sept 26 (7.8mm). |
| | 10-Oct-07 | Fall Rain | | | | | Low Water, 38 mm previous three days. |
| | 31-Oct-07 | October Dry | | | | | Dry |
| | 29-Nov-07 | Additional Fall | 655 | 6.90 | 3.5 | 6.7 | Low Flow, clear. |
| | 09-Apr-08 | Spring Freshet | 316 | 7.10 | 11.6 | 6.2 | Clear. Good flow, some grass/weeds on grate |
| | 20-Aug-08 | Summer Dry | | | | | Dry. Attempts made after 13.7 mm of rain in last 7 days |
| | 16-Sep-08 | Summer Rain | 655 | 7.40 | 16.2 | 3.92 | Good Flow. Some rock/silt partially blocking creek |
| | 18-Dec-08 | Fall Rain | 597 | 8.10 | 4.6 | 6.2 | Clear. Slow flow |
| | 28-May-09 | Spring Freshet | 643 | 7.50 | 14.8 | 5.19 | Dark with sheen |
| | 27-Jul-09 | Summer Dry | 667 | 7.60 | 19.1 | 7.93 | Barely any flow/ lots of weeds |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 1 | | | | | | | |
| | 14-Oct-09 | | 872 | 7.50 | 8.2 | 6.53 | Barely any flow/ lots of weeds |
| | 05-Nov-09 | | 898 | 7.40 | 6.2 | 6.98 | |
| | 26-Nov-09 | | 973 | 7.60 | 8.2 | 5.98 | |
| | 16-Dec-09 | | 973 | 7.60 | 2 | 8.44 | |
| | 25-Mar-10 | | 5.99 | 6.80 | 7.7 | 671 | Brownish with good flow |
| | 20-Aug-10 | | 7.26 | 20.90 | 7.8 | 699 | Cloudy with floating aquatic vegetation |
| | 04-Oct-10 | | 6.84 | 8.50 | 6.9 | 955 | Murky with average flow |
| | 29-Nov-10 | | 7.7 | 6.00 | 6.6 | 960 | Slightly cloudy average flow |
| SW 2 | | | | | | | |
| | 10-Apr-92 | | 900 | 8.40 | 10 | | Fairly clear, some red staining on creek bottom |
| | 11-Jun-92 | | 900 | 7.60 | 22 | | Clear, some red staining on creek bottom |
| | 13-Aug-92 | | 1200 | 7.80 | 17 | | Yellow sediment |
| | 10-Nov-92 | | N/A | N/A | 8 | | Yellow, red stain/growth on weeds and grass |
| | 01-Apr-93 | | 1000 | 9.30 | 1 | | Brown, heavy sediment, gravel bottom |
| | 20-Apr-93 | | 1000 | 9.30 | 5 | | Clear, gravel bottom, weeds |
| | 10-Jun-93 | | N/A | N/A | 15 | | Dry, not sampled |
| | 05-Nov-93 | | 1100 | 8.00 | 7 | 10.71 | Clear, some floating suspended particulate |
| | 30-Nov-93 | | 1100 | 8.10 | 1 | 10.45 | Yellow colour |
| | 13-Apr-94 | Spring Freshet | 1000 | 7.00 | 6 | 5.53 | Cloudy, brown green colour, very quick flow |
| | 26-Apr-94 | Spring Rain | 1200 | 8.10 | 11 | 10.35 | Light yellow, clear, good flow in narrow channel |
| | 04-May-94 | Spring Dry | 1000 | 7.90 | 16 | 5.44 | Yellow reddish colour, fairly clear |
| | 17-Jun-94 | June Dry | 1700 | 7.50 | 27 | 5.8 | Yellow colour, heavy growth, snails/minnows, slow flow |
| | 04-Aug-94 | Summer Rain | 1000 | 8.10 | 14 | 10.51 | Ditch almost dry, trickle, 9 cm silt up staff gauge |
| | 17-Aug-94 | August Dry | | | | | Dry, not sampled |
| | 14-Oct-94 | Fall Dry | | | | | Dry, not sampled |
| | 21-Nov-94 | Fall Rain | 1400 | 8.10 | 9 | 10.6 | Cloudy brown, ditch has been re-dug |
| | 13-Apr-95 | Spring Freshet | 1600 | 7.80 | 5 | 11.15 | Clear/yellowish sample, heavy iron staining on north side of ditch |
| | 28-Apr-95 | Spring Dry | 1200 | 8.20 | 9 | 10.4 | Weedy/silty bottom, good flow |
| | 17-May-95 | Spring Rain | 1300 | 7.10 | 11 | 7.1 | Clear/yellowish colour, some silt, heavy weed growth in ditch |
| | 30-Jun-95 | June Dry | | | | | Dry, not sampled |
| | 23-Aug-95 | August Dry | 1700 | 7.80 | 28 | 13.85 | Fairly clear/yellowish, very weedy, lots of snails, some flow |
| | 20-Oct-95 | Fall Dry | | | | | Dry, not sampled |
| | 28-Nov-95 | Fall Rain | 1171 | 7.50 | 6.2 | 8 | Some sediments, grass |
| | 16-Apr-96 | Spring Freshet | 680 | 8.40 | 5.9 | 8.6 | Ditch fairly clear, some reeds |
| | 27-May-96 | Spring Dry | 1000 | 7.80 | 11 | 5 | Reeds and grass, Some silt on bottom, water bugs, clear |
| | 18-Jun-96 | Spring Rain | 1350 | N/A | 15 | 7 | Fairly clear, flow |
| | 06-Aug-96 | June Dry | 1400 | N/A | 18 | N/A | Very little flow, grass and reeds |
| | 07-Oct-96 | August Dry | N/A | N/A | N/A | N/A | Ditch clear, re-cut twoweeks ago, clear, water level high |
| | 30-Oct-96 | Summer Rain | 908 | 8.00 | 9.4 | 4.9 | Some flow |
| | 06-Dec-96 | Fall Rain | 1015 | 7.60 | 4 | 5.2 | Some flow |
| | 16-Apr-97 | Spring Freshet | 939 | 7.80 | 7.6 | 7.4 | Lots of silt around staff gauge, some litter |
| | 23-May-97 | Spring Dry | 933 | 7.20 | 7.2 | 4.8 | Lots of weeds, sticks and silt |
| | 07-Aug-97 | Summer Dry | 857 | 6.90 | 13.1 | 3.8 | Water backed up; Beaver dam about 10 m downstream of SW 16. |
| | 18-Nov-97 | Fall Dry | 1249 | 7.40 | 4 | 5.4 | Site is iced; sample taken at culvert 8 m downstream at open water |
| | 26-Nov-97 | Fall Rain | 973 | 7.40 | 5.9 | 3.7 | very little flowing; cloudy |
| | 17-Jun-98 | Spring Rain | 2100 | 7.70 | 24.2 | 4.4 | Water flowing well, clear |
| | 07-Dec-98 | Fall Rain | | | | | No flow |
| | 23-Apr-99 | Spring Freshet | 1101 | 7.80 | 8.6 | 5.2 | Clear, good flow |
| | 30-Jun-99 | Summer Rain | N/A | N/A | N/A | N/A | |
| | 06-Dec-99 | Fall Rain | 672 | 6.90 | 7.3 | 5 | Good flow, narrow channel, grass lining ditch bottom |
| | 15-Mar-00 | Spring Freshet | 585 | 7.30 | 4.3 | 4.9 | Clear; good flow |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 2 | | | | | | | |
| | 20-Sep-00 | Fall Dry | | | | | No sample - location was dry; ditch is overgrown with grass |
| | 27-Nov-00 | Fall Rain | | | | | No Flow |
| | 20-Mar-01 | Spring Freshet | 400 | 7.40 | 5.1 | 4.6 | some flow, occasional pieces of litter in ditch |
| | 10-Oct-01 | Fall Dry | | | | | Dry |
| | 03-Dec-01 | Fall rain | 655 | 7.80 | 6 | 8.4 | Flowing, clear |
| | 18-Feb-02 | Spring Freshet | | | | | Not enough water to grab samples. |
| | 17-Apr-02 | April Dry | | | | | Dry Conditions with warm temperatures - no flows observed |
| | 15-May-02 | Spring Rain | | | | | No flow observed |
| | 06-Jun-02 | Summer Rain | | | | | Dry |
| | 17-Jun-02 | June Dry | | | | | No dry conditions due to heavy rains, Dry event could not be completed |
| | 12-Aug-02 | August Dry | | | | | No rain for 10 days, no surface water to sample |
| | 25-Oct-02 | October Dry | | | | | No more than 2 dry days in a row, no samples taken |
| | 23-Dec-02 | Fall Rain | | | | | Rains for 2 days, still not enough water to sample |
| | 18-Mar-03 | Spring Freshet | 493 | 7.10 | 3.8 | 8.55 | Good flow, ditch is lined with ice |
| | 28-Apr-03 | April Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 26-May-03 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 18-Jun-03 | June Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 06-Aug-03 | Summer Rain | | | | | Dry |
| | 26-Aug-03 | August Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 24-Oct-03 | October Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 19-Nov-03 | Fall Rain | 844 | 7.50 | 10.5 | 5.94 | Some Flow |
| | 10-Mar-04 | Spring Freshet | 570 | 7.40 | 5 | 5.87 | Clear, some flow |
| | 22-Apr-04 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 27-May-04 | April Dry | 853 | 7.97 | 14.7 | 5.54 | Clear, flowing well. |
| | 28-Jun-04 | June Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 17-Aug-04 | August Dry | | | | | No sample collected, dry, |
| | 19-Oct-04 | Summer Rain | | | | | Dry |
| | 28-Oct-04 | October Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 08-Dec-04 | Fall Rain | 657 | 7.90 | 8.2 | | Some flow, clear. |
| | 04-Apr-05 | Spring Freshet | 644 | 8.41 | 5 | 7.41 | Good flow, clear |
| | 30-Apr-05 | April Dry | | | | | No sample taken due to rain |
| | 16-May-05 | Spring Rain | | | | | No sample taken, not enough run-off after rain event on May 16. Very little rain during rest of month. |
| | 30-Jun-05 | June Dry | | | | | No samples taken, dry |
| | 25-Aug-05 | August Dry | | | | | No sample taken, not enough run-off even after rain event earlier in the week of Aug 25. |
| | 28-Sep-05 | Summer Rain | | | | | No sample taken, not enough run-off |
| | 14-Oct-05 | October Dry | | | | | No sample taken, Dry |
| | 30-Nov-05 | Fall Rain | | | | | No sample taken, not enough run-off |
| | 24-Apr-06 | Spring Freshet | 741 | 7.70 | 8.5 | 8.03 | Good flow |
| | 30-Apr-06 | April Dry | | | | | No Dry Period During Month |
| | 31-May-06 | Spring Rain | | | | | Rain event early in month, no run-off occuring later in month. |
| | 09-Jun-06 | June Dry | | | | | Low Water |
| | 09-Aug-06 | August Dry | | | | | Low Water |
| | 14-Sep-06 | Summer Rain | | | | | Dry |
| | 12-Oct-06 | October Dry | 810 | 7.40 | 9.4 | 3.48 | SW2 dry, sample taken 6m downstream. Minimal Flow. |
| | 13-Dec-06 | Fall Rain | 488 | 7.20 | 5.1 | 7.67 | Clear. Lots of grass in ditch. |
| | 23-Mar-07 | Spring Freshet | 432 | 7.50 | 4.6 | 8.55 | Slow Flow, Clear. |
| | 26-Apr-07 | April Dry | | | | | Dry |
| | 17-May-07 | Spring Rain | 715 | 7.60 | 14.4 | 4.77 | Slow Flow, Clear. |
| | 19-Jun-07 | June Dry | | | | | Dry, No water next day after June 9 (9.8mm) and June 19 (22.4mm). |
| | 10-Aug-07 | August Dry | | | | | Dry, No water next day after largest rain event on August 7 (18mm). |
| | 26-Sep-07 | Summer Rain | | | | | Dry. No water next day after last rain event on Sept 26 (7.8mm). |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 2 | | | | | | | |
| | 10-Oct-07 | Fall Rain | | | | | Dry, 38 mm previous three days. |
| | 31-Oct-07 | October Dry | | | | | Dry |
| | 29-Nov-07 | Additional Fall | | | | | No Water, ~15cm of snow in ditch. |
| | 09-Apr-08 | Spring Freshet | 412 | 7.10 | 10.6 | 8.39 | Clear. Some flow |
| | 20-Aug-08 | Summer Dry | | | | | Dry. Attempts made after 13.7 mm of rain in last 7 days |
| | 16-Sep-08 | Summer Rain | 497 | 7.40 | 16.3 | 4.36 | Slow flow. Overgrown with grass |
| | 18-Dec-08 | Fall Rain | 574 | 7.60 | 6.8 | 6.4 | Very little flow. |
| | 28-May-09 | Spring Freshet | 488 | 7.40 | 15.4 | 4.06 | Slight sheen |
| | 27-Jul-09 | Summer Dry | 288 | 8.10 | 20.6 | 4.71 | No flow/ weeds |
| | 14-Oct-09 | | 567 | 7.60 | 6.6 | 5.82 | Slow flow/ weeds/ Sample taken 3 meters from gauge |
| | 05-Nov-09 | | 732 | 7.50 | 5.4 | 5.3 | Slow flow/ weeds |
| | 26-Nov-09 | | 488 | 7.80 | 10.4 | 7.6 | Slow flow/ weeds |
| | 16-Dec-09 | | 488 | 7.80 | 5.2 | 8.58 | Broke ice |
| | 25-Mar-10 | | 4.98 | 6.50 | 7.9 | 524 | Murky with good flow |
| | 20-Aug-10 | | 8.2 | 19.60 | 8 | 674 | Brownish colour with lots of floating aquatic vegetation |
| | 04-Oct-10 | | 5.85 | 8.50 | 7.1 | 932 | Clear with some flow |
| | 29-Nov-10 | | 8.94 | 3.30 | 7 | 732 | Clear very low flow |
| SW 3A | | | | | | | |
| | 02-Sep-93 | | 1200 | 7.50 | 22 | 13.41 | Fairly clear, good flow, silty bottom, bugs |
| | 05-Nov-93 | | 1200 | 8.00 | 8 | 10.59 | fairly clear, low flow |
| | 30-Nov-93 | | 900 | 8.10 | 1 | 10.75 | Fairly clear |
| | 13-Apr-94 | Spring Freshet | 800 | 7.30 | 6 | 5.55 | Fairly clear, yellowish colour, weeds, some debris |
| | 26-Apr-94 | Spring Rain | 800 | 8.00 | 11 | 10.42 | Yellow colour, clear, mud bottom/weeds, minnows/insects |
| | 04-May-94 | Spring Dry | 700 | 8.00 | 15 | 7.19 | Silty yellowish brown, muddy bottom weeds/grass |
| | 17-Jun-94 | June Dry | 900 | 7.50 | 20 | 9.55 | Heavy growth, grass/weeds/reeds, bio growth on surface |
| | 04-Aug-94 | Summer Rain | 900 | 8.20 | 12 | 10.73 | Very weedy, meandering water course, silty sample |
| | 17-Aug-94 | August Dry | 900 | 7.70 | 15 | 9.45 | Weedy muddy bottom, meandering water course |
| | 14-Oct-94 | Fall Dry | 900 | 8.00 | 8 | 10.63 | Yellowish colour, main flow through weed channel |
| | 21-Nov-94 | Fall Rain | 700 | 8.20 | 9 | 10.72 | Cloudy brown, good flow through channel |
| | 13-Apr-95 | Spring Freshet | 900 | 7.90 | 5 | 10.87 | Fairly clear/yellowish, good flow, algea noted on banks |
| | 28-Apr-95 | Spring Dry | 700 | 8.10 | 10 | 10.52 | Very clear sample, muddy/weedy bottom, lots of life, good flow |
| | 17-May-95 | Spring Rain | 1000 | 7.30 | 11 | 6.91 | Clear/yellowish colour, heavy weed growth, flow is through weeds |
| | 30-Jun-95 | June Dry | 1000 | 7.80 | 18 | 7.6 | Lots of weeds |
| | 11-Aug-95 | Summer Rain | N/A | N/A | 19 | N/A | |
| | 23-Aug-95 | August Dry | 900 | 7.90 | 19 | 11.71 | Brown/green scum, yellowish sample, lots of algae, very weedy |
| | 20-Oct-95 | Fall Dry | 800 | 7.90 | 12 | 10.59 | Very weedy/grass, yellowish colour, flow through weeds |
| | 28-Nov-95 | Fall Rain | 952 | 7.60 | 5.9 | 10 | Grass in bed of stream |
| | 16-Apr-96 | Spring Freshet | 715 | 8.60 | 4.5 | 8.5 | Good flow, clear |
| | 27-May-96 | Spring Dry | 950 | 7.90 | 11 | 5.8 | Lots of reeds in water, clear |
| | 18-Jun-96 | Spring Rain | 1000 | N/A | 15 | 6 | Lots of weeds, good flow |
| | 06-Aug-96 | June Dry | 1050 | N/A | 17 | | Very little flow |
| | 07-Oct-96 | August Dry | N/A | N/A | N/A | N/A | |
| | 30-Oct-96 | Summer Rain | 812 | 8.00 | 8.8 | 0 | Reeds and grass, high water level, good flow |
| | 06-Dec-96 | Fall Rain | 1673 | 7.60 | 4.2 | 6.2 | Good flow |
| | 16-Apr-97 | Spring Freshet | 936 | 8.00 | 7.5 | 7 | Bags around staff gauge |
| | 23-May-97 | Spring Dry | 810 | 7.80 | 8.1 | 5.2 | Some flow and flies; clear water |
| | 07-Aug-97 | Summer Dry | 804 | 7.70 | 14.2 | 4.3 | |
| | 18-Nov-97 | Fall Dry | 1088 | 7.80 | 5.1 | 1.2 | 1" of ice on creek. Elevated water due to beaver dam downstream 25 m |
| | 26-Nov-97 | Fall Rain | 921 | 7.40 | 7.2 | 2.8 | Ice on creek; had to break to get sample |
| | 17-Jun-98 | Spring Rain | 957 | 8.00 | 21.8 | 7 | Brown and silty, flowing slowly, some floating debris |
| | 07-Dec-98 | Fall Rain | 771 | 9.00 | 9.7 | 5.4 | Flow moderate to slow; slightly turbid |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 3A | | | | | | | |
| | 23-Apr-99 | Spring Freshet | 652 | 8.00 | 5.9 | 5.9 | Clear, good flow |
| | 30-Jun-99 | Summer Rain | N/A | N/A | N/A | N/A | |
| | 06-Dec-99 | Fall Rain | 672 | 6.70 | 6.7 | 7.2 | Some flow, clear |
| | 15-Mar-00 | Spring Freshet | 463 | 7.40 | 5.3 | 6.7 | Creek is clear of debris; good flow |
| | 20-Sep-00 | Fall Dry | 130 | 7.60 | 13.7 | 7.7 | Very little flow - water level very low; creek bed is silty |
| | 27-Nov-00 | Fall Rain | 535 | 7.10 | 14.1 | 4.8 | Some flow; clear; silty bottom |
| | 20-Mar-01 | Spring Freshet | 372 | 7.60 | 6.2 | 5.1 | Some flow, Stream bed clear of debri, Very clear |
| | 10-Oct-01 | Fall Dry | 913 | 7.60 | 9.5 | 2.1 | Very little flow, trickle |
| | 03-Dec-01 | Fall rain | 665 | 8.00 | 8.4 | 3.7 | Flowing, clear |
| | 18-Feb-02 | Spring Freshet | | | | | Not enough water to grab samples. |
| | 17-Apr-02 | April Dry | | | | | Dry Conditions with warm temperatures - no flows observed |
| | 15-May-02 | Spring Rain | | | | | No flow observed |
| | 06-Jun-02 | Summer Rain | 588 | 7.80 | 12.6 | N/A | Good flow, clear |
| | 17-Jun-02 | June Dry | | | | | No dry conditions due to heavy rains, Dry event could not be completed |
| | 12-Aug-02 | August Dry | | | | | No rain for 10 days, no surface water to sample |
| | 25-Oct-02 | October Dry | | | | | No more than 2 dry days in a row, no samples taken |
| | 23-Dec-02 | Fall Rain | | | | | Rains for 2 days, still not enough water to sample |
| | 18-Mar-03 | Spring Freshet | 427 | 7.40 | 4.8 | 9.05 | Good flow, creek is lined with ice |
| | 28-Apr-03 | April Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 26-May-03 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 18-Jun-03 | June Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 06-Aug-03 | Summer Rain | | | | | Wet, no water |
| | 26-Aug-03 | August Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 24-Oct-03 | October Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 19-Nov-03 | Fall Rain | 587 | 7.70 | 11 | 7.6 | Good flow, silty |
| | 10-Mar-04 | Spring Freshet | 650 | 7.50 | 1.6 | 8.87 | Clear, some flow |
| | 22-Apr-04 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 27-May-04 | April Dry | 801 | 7.89 | 13.3 | 8.14 | Water faily clear, some flow. |
| | 28-Jun-04 | June Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 17-Aug-04 | August Dry | 830 | 8.02 | 14.5 | 8.35 | Minor flow, clear. |
| | 19-Oct-04 | Summer Rain | 1124 | 8.30 | 8.4 | 8.3 | Very little flow, clear. |
| | 28-Oct-04 | October Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 08-Dec-04 | Fall Rain | 574 | 7.89 | 4.9 | | Some flow, clear. |
| | 04-Apr-05 | Spring Freshet | 642 | 8.08 | 5.2 | 7.98 | Moderate flow, clear |
| | 30-Apr-05 | April Dry | | | | | No sample taken due to rain |
| | 16-May-05 | Spring Rain | | | | | No sample taken, not enough run-off after rain event on May 16. Very little rain during rest of month. |
| | 30-Jun-05 | June Dry | | | | | No samples taken, dry |
| | 25-Aug-05 | August Dry | | | | | No sample taken, not enough run-off even after rain event earlier in the week of Aug 25. |
| | 28-Sep-05 | Summer Rain | | | | | No sample taken, not enough run-off |
| | 14-Oct-05 | October Dry | | | | | No sample taken, Dry |
| | 30-Nov-05 | Fall Rain | | | | | No sample taken, not enough run-off |
| | 24-Apr-06 | Spring Freshet | 625 | 7.80 | 8.2 | 8.1 | Good Flow. Garbage observed on east side of Access road. |
| | 30-Apr-06 | April Dry | | | | | No Dry Period During Month |
| | 31-May-06 | Spring Rain | | | | | Rain event early in month, no run-off occuring later in month. |
| | 09-Jun-06 | June Dry | | | | | Low Water |
| | 09-Aug-06 | August Dry | | | | | Low Water |
| | 14-Sep-06 | Summer Rain | | | | | Dry |
| | 12-Oct-06 | October Dry | 705 | 7.60 | 8.6 | 6.27 | Slow flow, good volume of water in creek. |
| | 13-Dec-06 | Fall Rain | 507 | 7.40 | 5.8 | 8.15 | Slow flow, good volume of water in creek. |
| | 23-Mar-07 | Spring Freshet | 458 | 7.60 | 4.5 | 7.7 | Slow Flow, Clear. |
| | 26-Apr-07 | April Dry | | | | | Dry |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 3A | | | | | | | |
| | 17-May-07 | Spring Rain | 630 | 8.00 | 13.4 | 7.75 | Slow Flow, Clear. |
| | 19-Jun-07 | June Dry | | | | | Dry, No water next day after June 9 (9.8mm) and June 19 (22.4mm). |
| | 10-Aug-07 | August Dry | | | | | Dry, No water next day after largest rain event on August 7 (18mm). |
| | 26-Sep-07 | Summer Rain | | | | | Dry. No water next day after last rain event on Sept 26 (7.8mm). |
| | 10-Oct-07 | Fall Rain | | | | | Dry, 38 mm previous three days. |
| | 31-Oct-07 | October Dry | | | | | Dry |
| | 29-Nov-07 | Additional Fall | 700 | 7.00 | 3.8 | 9.89 | Slow Flow, Clear. Leaves lining bottom of Creek. |
| | 09-Apr-08 | Spring Freshet | 522 | 7.10 | 11.2 | 7.71 | Clear. Moderate flow |
| | 20-Aug-08 | Summer Dry | | | | | Dry. Attempts made after 13.7 mm of rain in last 7 days |
| | 16-Sep-08 | Summer Rain | 584 | 7.50 | 15.3 | 6.21 | Slow flow. TSS visible (possibly from development) |
| | 18-Dec-08 | Fall Rain | 642 | 7.90 | 3.2 | 8.05 | Clear. Slow flow |
| | 28-May-09 | Spring Freshet | 676 | 7.50 | 13 | 5.6 | Some sediment/ Good flow |
| | 27-Jul-09 | Summer Dry | 389 | 7.90 | 19.6 | 6.04 | Slow flow/ Mucky |
| | 14-Oct-09 | | 803 | 7.60 | 8 | 9.27 | Slow flow/ Mucky |
| | 05-Nov-09 | | 929 | 7.80 | 6.6 | 6.6 | Slow flow/ weeds |
| | 26-Nov-09 | | 705 | 8.00 | 9.3 | 8.6 | Slow flow/ weeds |
| | 16-Dec-09 | | 705 | 8.00 | 6.1 | 8.9 | Broke ice |
| | 25-Mar-10 | | 6.14 | 7.10 | 7.8 | 647 | Slightly cloudy with goodflow |
| | 20-Aug-10 | | 9.35 | 22.10 | 8.2 | 653 | Clear, stream very shallow with staff gauge out of the water |
| | 04-Oct-10 | | 7.55 | 9.50 | 7.6 | 878 | Slightly cloudy, staff gauge out of water |
| | 29-Nov-10 | | 9.46 | 4.40 | 7 | 932 | Clear |
| SW 4 | | | | | | | |
| | 10-Apr-92 | | N/A | N/A | 10 | | Clear, good flow out of culvert |
| | 11-Jun-92 | | | | | | Not sampled |
| | 13-Aug-92 | | 1200 | 7.60 | 15 | | Fairly clear, biological build up on culvert |
| | 10-Nov-92 | | 1000 | 8.00 | 7 | | Yellowish red, red staining on culvert and grass |
| | 20-Apr-93 | | 600 | 9.30 | 5 | | Cloudy, discharge from wetland appears silty |
| | 10-Jun-93 | | 600 | 9.20 | 14 | | Some silt, fast flow out of wetland |
| | 29-Nov-93 | Spring Freshet | 900 | 8.10 | 1 | 11.04 | Yellow colour |
| | 13-Apr-94 | Spring Rain | 600 | 7.40 | 6 | 5.68 | Cloudy brown, silty. Entering clear ditch water |
| | 26-May-94 | Summer Rain | 700 | 8.10 | 11 | 4.2 | Light yellow colour, some visible particles |
| | 04-Aug-94 | Fall Rain | 900 | 8.10 | 14 | 11.31 | Trickle from culvert, previously dry |
| | 21-Nov-94 | Spring Freshet | | | | | Dry, not sampled although there has been substantial rain falls |
| | 13-Apr-95 | Spring Rain | 700 | 8.00 | 3 | 11.35 | Debris in culvert (twigs etc.), fairly good flow |
| | 17-May-95 | Summer Rain | 700 | 6.90 | 12 | 4.38 | Clear, good flow through culvert |
| | 28-Nov-95 | Fall Rain | 1615 | 7.60 | 5.7 | 11 | Leaf accumulation in ditch, lots of growing, very little flow |
| | 16-Apr-96 | Spring Freshet | 734 | 8.20 | 5.1 | 10.8 | Grass in ditch, |
| | 18-Jun-96 | Spring Rain | 1150 | N/A | 15 | 6 | Very little flow, lots of grass in ditch |
| | 30-Oct-96 | Summer Rain | 675 | 8.10 | 9.2 | 4.5 | Good flow |
| | 06-Dec-96 | Fall Rain | 720 | 7.40 | 2.5 | 2.4 | Good flow |
| | 16-Apr-97 | Spring Freshet | 557 | 7.60 | 7.2 | 4.3 | Good flow |
| | 26-Nov-97 | Fall Rain | 701 | 7.40 | 10.3 | 2.2 | Sampled for TSS only; flow well clear |
| | 17-Jun-98 | Spring Rain | | | | | No flow |
| | 07-Dec-98 | Fall Rain | | | | | No flow |
| | 23-Apr-99 | Spring Freshet | 479 | 8.30 | 8 | 2.1 | Clear, good flow |
| | 30-Jun-99 | Summer Rain | N/A | N/A | N/A | N/A | |
| | 06-Dec-99 | Fall Rain | 319 | 6.80 | 10.5 | 1.2 | Good flow from pipe, foam present |
| | 15-Mar-00 | Spring Freshet | 315 | 7.00 | 4.2 | 3 | Good flow; clear |
| | 20-Sep-00 | Fall Dry | | | | | No sample - pipe is not discharging |
| | 27-Nov-00 | Fall Rain | | | | | No Flow |
| | 20-Mar-01 | Spring Freshet | 288 | 7.10 | 3.8 | 2.1 | Good flow from pipe |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 4 | | | | | | | |
| | 10-Oct-01 | Fall Dry | | | | | Dry |
| | 03-Dec-01 | Fall rain | 355 | 7.60 | 7.7 | 1 | Flowing, cloudy |
| | 18-Feb-02 | Spring Freshet | | | | | Not enough water to grab samples. |
| | 15-May-02 | Spring Rain | | | | | No flow observed |
| | 06-Jun-02 | Summer Rain | | | | | Dry |
| | 23-Dec-02 | Fall Rain | | | | | Rains for 2 days, still not enough water to sample |
| | 18-Mar-03 | Spring Freshet | | | | | No Flow from culvert, frozen |
| | 26-May-03 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 06-Aug-03 | Summer Rain | | | | | No flow |
| | 19-Nov-03 | Fall Rain | 513 | 7.60 | 11.9 | 2.52 | Good flow, culvert half full |
| | 10-Mar-04 | Spring Freshet | 418 | 7.40 | 6.9 | 4.57 | Clear, good flow |
| | 22-Apr-04 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 27-May-04 | April Dry | 444 | 7.82 | 15.1 | 2.88 | Clear, some flow |
| | 17-Aug-04 | August Dry | | | | | No sample collected, dry, |
| | 19-Oct-04 | Summer Rain | | | | | No flow |
| | 08-Dec-04 | Fall Rain | 444 | 7.66 | 9.5 | | Good flow, culvert third full |
| | 04-Apr-05 | Spring Freshet | 404 | 7.94 | 6.1 | 4.47 | Pipe is flowing half full, clear |
| | 30-Apr-05 | April Dry | | | | | No sample taken due to rain |
| | 16-May-05 | Spring Rain | | | | | No sample taken, not enough run-off after rain event on May 16. Very little rain during rest of month. |
| | 25-Aug-05 | August Dry | | | | | No sample taken, not enough run-off even after rain event earlier in the week of Aug 25. |
| | 28-Sep-05 | Summer Rain | | | | | No sample taken, not enough run-off |
| | 30-Nov-05 | Fall Rain | | | | | No sample taken, not enough run-off |
| | 24-Apr-06 | Spring Freshet | 470 | 7.80 | 8.9 | 5.18 | Culvert flowing (half full), clear. |
| | 30-Apr-06 | April Dry | | | | | No Dry Period During Month |
| | 31-May-06 | Spring Rain | | | | | Dry |
| | 09-Aug-06 | August Dry | | | | | Dry |
| | 14-Sep-06 | Summer Rain | | | | | Dry |
| | 12-Oct-06 | October Dry | 411 | 7.40 | 9.5 | 1.81 | low flow. Water discoloured due to large amounts of leaves in bush. |
| | 13-Dec-06 | Fall Rain | 370 | 7.10 | 5 | 5.8 | Some flow in culvert (about half full), clear. |
| | 23-Mar-07 | Spring Freshet | 277 | 7.80 | 3.9 | 8.39 | Good Flow. Pipe 3/4 full. Ice cover in bused area. |
| | 26-Apr-07 | April Dry | | | | | Dry |
| | 17-May-07 | Spring Rain | 245 | 7.60 | 13.3 | 2.71 | Good Flow. Pipe 1/4 full. |
| | 10-Aug-07 | August Dry | | | | | Dry, No water next day after largest rain event on August 7 (18mm). |
| | 26-Sep-07 | Summer Rain | | | | | Dry. No water next day after last rain event on Sept 26 (7.8mm). |
| | 10-Oct-07 | Fall Rain | | | | | Dry, 38 mm previous three days. |
| | 31-Oct-07 | October Dry | | | | | Dry |
| | 29-Nov-07 | Additional Fall | | | | | Dry |
| | 09-Apr-08 | Spring Freshet | 240 | 7.10 | 9 | 7.71 | Good Flow. Pipe 1/2 full. Flooded in bush area. |
| | 20-Aug-08 | Summer Dry | | | | | Dry. Attempts made after 13.7 mm of rain in last 7 days |
| | 16-Sep-08 | Summer Rain | 457 | 7.60 | 16.5 | 1.86 | Clear. Good flow. Pipe 1/4 full |
| | 18-Dec-08 | Fall Rain | 527 | 7.60 | 3.6 | 3.11 | Clear. Slow flow |
| | 28-May-09 | Spring Freshet | 321 | 8.40 | 16.6 | 9.22 | Silky |
| | 27-Jul-09 | Summer Dry | 219 | 8.90 | | 5.88 | Silky |
| | 14-Oct-09 | | | | | | No Discharge from location |
| | 05-Nov-09 | | 350 | 8.10 | | 6.3 | No Discharge from location |
| | 26-Nov-09 | | 324 | 8.50 | | 9.58 | |
| | 16-Dec-09 | | 324 | 8.50 | | 8.79 | |
| | 25-Mar-10 | | 7.21 | 6.90 | 7.5 | 409 | clear |
| | 20-Aug-10 | | 19.13 | 22.40 | 9.4 | 302 | Last small pool of Water, very low flow, clear |
| | 04-Oct-10 | | 7.27 | 10.40 | 7.6 | 298 | Clear with very little flow |
| | 29-Nov-10 | | 7.67 | 3.70 | 7.2 | 549 | Slightly cloudy with very low flow |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 4 | | | | | | | |
| SW 5 | | | | | | | |
| | 10-Apr-92 | | N/A | N/A | 10 | | Clear |
| | 11-Jun-92 | | 1600 | 7.40 | 15 | | Clear |
| | 13-Aug-92 | | 1400 | 7.40 | 14 | | Clear, slow |
| | 10-Nov-92 | | 1800 | 7.80 | 8 | | Clear, some sediment |
| | 20-Apr-93 | | 1500 | 9.30 | 5 | | Fairly clear, yellow colour, some silt, silty bottom |
| | 10-Jun-93 | | 1200 | 8.90 | 14 | | Some suspended silt, very silty bottom |
| | 02-Sep-93 | | 400 | 7.70 | 17 | 6.3 | Dark colour, lots of silt and weeds, slow |
| | 05-Nov-93 | | 1000 | 8.00 | 7 | 11.87 | Dirty brown colour, slow |
| | 30-Nov-93 | | 1100 | 8.00 | 1 | 11.21 | Dark colour, weed and algae growth |
| | 13-Apr-94 | Spring Freshet | 2400 | 7.20 | 6.5 | 5.66 | Clear through weeds, some sediment load |
| | 04-May-94 | Spring Dry | 2100 | 7.60 | 12 | 5.43 | Light yellow, clear, lot of weeds at culvert opening |
| | 26-May-94 | Spring Rain | 1000 | 8.00 | 11 | 10.53 | Brown colour, very silty, mud bottom, weeds/grass |
| | 17-Jun-94 | June Dry | 1800 | 7.40 | 19 | 9.55 | Clear yellow, heavy growth, liitle flow |
| | 04-Aug-94 | Summer Rain | 1200 | 8.00 | 19 | 11.23 | Very weedy, sample appears silty |
| | 17-Aug-94 | August Dry | | | | | Dry, not sampled, some small stagnant pools |
| | 14-Oct-94 | Fall Dry | | | | | Dry, not sampled, some small stagnant pools |
| | 21-Nov-94 | Fall Rain | 600 | 8.00 | 9 | 11.2 | Fairly clear, lots of reeds and grass |
| | 13-Apr-95 | Spring Freshet | 2200 | 7.80 | 5 | 11.05 | Clear/yellow colour, lots of weeds/mud |
| | 28-Apr-95 | Spring Dry | 1600 | 8.00 | 10 | 10.05 | Clear, silty/muddy/weedy botom, lots of reeds |
| | 17-May-95 | Spring Rain | 1000 | 7.40 | 13 | 10.7 | Clear with some silt, growth around staff gauge |
| | 30-Jun-95 | June Dry | 2100 | 7.60 | 18 | 5.3 | Very weedy |
| | 23-Aug-95 | August Dry | 2000 | 7.50 | 18 | 6.89 | Clear/yellow sample, very weedy, scum orange film, minimal flow |
| | 20-Oct-95 | Fall Dry | 2200 | 7.70 | 12 | 6.84 | Very weedy/bull rushes, minimal flow |
| | 28-Nov-95 | Fall Rain | 4450 | 7.80 | 6 | 8 | Lots of grass and reeds |
| | 16-Apr-96 | Spring Freshet | 1418 | 8.10 | 6.3 | 8.5 | Some flow, lots of reeds |
| | 27-May-96 | Spring Dry | 1800 | 8.20 | 11 | 6.2 | Some flow, weeds, some silt |
| | 18-Jun-96 | Spring Rain | 1200 | N/A | 16 | 6.3 | Some flow, lots of reeds and grass |
| | 06-Aug-96 | June Dry | 2150 | N/A | 16 | N/A | Very little flow, Lots of reeds |
| | 07-Oct-96 | August Dry | N/A | N/A | N/A | N/A | Lots of reeds |
| | 30-Oct-96 | Summer Rain | 1244 | 8.00 | 10.2 | 5.4 | Some flow, lots of reeds |
| | 06-Dec-96 | Fall Rain | 6260 | 7.80 | 6.5 | 5.4 | Little flow, water cloudy, Gas Line work on Speedvale |
| | 16-Apr-97 | Spring Freshet | 1133 | 7.70 | 7.3 | 6.7 | Some garbage around area. Very little flow coming from silt dams |
| | 23-May-97 | Spring Dry | 1597 | 7.30 | 9.6 | 6.9 | No flow |
| | 07-Aug-97 | Summer Dry | | | | | No flow - dry |
| | 18-Nov-97 | Fall Dry | 16370 | 7.50 | 3.8 | 3.5 | Leaves lining bottom of creek, no flow, clear water |
| | 26-Nov-97 | Fall Rain | 2110 | 7.60 | 10.9 | 6.4 | Cloudy, no flow |
| | 17-Jun-98 | Spring Rain | 486 | 7.80 | 20.8 | 3.3 | Standing water |
| | 07-Dec-98 | Fall Rain | 1350 | 6.80 | 8.9 | 5.8 | Very slight flow |
| | 23-Apr-99 | Spring Freshet | 964 | 7.70 | 8.6 | 5.7 | Standing water, clear |
| | 30-Jun-99 | Summer Rain | N/A | N/A | N/A | N/A | |
| | 06-Dec-99 | Fall Rain | 474 | 7.10 | 10.2 | 6.5 | Very small flow through silt in culvert, very narrow |
| | 15-Mar-00 | Spring Freshet | 636 | 7.40 | 4.8 | 7.2 | Trickling flow |
| | 27-Mar-00 | MOEE Samples | 431 | 7.40 | 7.7 | 7.3 | Good flow; somewhat of a trickle |
| | 20-Sep-00 | Fall Dry | | | | | No sample - location is dry; pile of silt has formed in creek 6 m downstream; removed silt |
| | 27-Nov-00 | Fall Rain | 1253 | 7.10 | 6.5 | 4.1 | Very little flow / still; some silt in bottom |
| | 20-Mar-01 | Spring Freshet | 552 | 7.60 | 5.5 | 6 | Very little flow, clear |
| | 10-Oct-01 | Fall Dry | | | | | Dry |
| | 03-Dec-01 | Fall rain | 974 | 7.90 | 8.8 | 3.8 | No real flow (trickle), clear |
| | 18-Feb-02 | Spring Freshet | | | | | Not enough water to grab samples. |
| | 17-Apr-02 | April Dry | | | | | Dry Conditions with warm temperatures - no flows observed |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 5 | | | | | | | |
| | 15-May-02 | Spring Rain | | | | | No flow observed |
| | 06-Jun-02 | Summer Rain | 134 | 7.60 | 11.7 | | Some flow |
| | 17-Jun-02 | June Dry | | | | | No dry conditions due to heavy rains, Dry event could not be completed |
| | 12-Aug-02 | August Dry | | | | | No rain for 10 days, no surface water to sample |
| | 25-Oct-02 | October Dry | | | | | No more than 2 dry days in a row, no samples taken |
| | 23-Dec-02 | Fall Rain | | | | | Rains for 2 days, still not enough water to sample |
| | 18-Mar-03 | Spring Freshet | 744 | 7.50 | 3.4 | 9.8 | Low flow, visible TSS |
| | 28-Apr-03 | April Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 26-May-03 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 18-Jun-03 | June Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 06-Aug-03 | Summer Rain | | | | | Very little water |
| | 26-Aug-03 | August Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 24-Oct-03 | October Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 19-Nov-03 | Fall Rain | 657 | 7.70 | 11.2 | 8.3 | Some flow, clear |
| | 10-Mar-04 | Spring Freshet | 1115 | 7.60 | 4.3 | 8.73 | Clear, trickle flow |
| | 22-Apr-04 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 27-May-04 | April Dry | 944 | 8.09 | 15.6 | 6.9 | Clear, trickle flow |
| | 28-Jun-04 | June Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 17-Aug-04 | August Dry | | | | | No sample collected, dry, |
| | 19-Oct-04 | Summer Rain | | | | | No flow |
| | 28-Oct-04 | October Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 08-Dec-04 | Fall Rain | 965 | 8.08 | 8.6 | | Very little flow, clear. |
| | 04-Apr-05 | Spring Freshet | 960 | 8.51 | 6.5 | 9.68 | Some flow, visible TSS |
| | 30-Apr-05 | April Dry | | | | | No sample taken due to rain |
| | 16-May-05 | Spring Rain | | | | | No sample taken, not enough run-off after rain event on May 16. Very little rain during rest of month. |
| | 30-Jun-05 | June Dry | | | | | No samples taken, dry |
| | 25-Aug-05 | August Dry | | | | | No sample taken, not enough run-off even after rain event earlier in the week of Aug 25. |
| | 28-Sep-05 | Summer Rain | | | | | No sample taken, not enough run-off |
| | 14-Oct-05 | October Dry | | | | | No sample taken, Dry |
| | 30-Nov-05 | Fall Rain | | | | | No sample taken, not enough run-off |
| | 24-Apr-06 | Spring Freshet | 933 | 7.80 | 8 | 8.8 | Slow flow, clear. |
| | 30-Apr-06 | April Dry | | | | | No Dry Period During Month |
| | 31-May-06 | Spring Rain | | | | | Rain event early in month, no run-off occuring later in month. |
| | 09-Jun-06 | June Dry | | | | | Low Water |
| | 09-Aug-06 | August Dry | | | | | Low Water |
| | 14-Sep-06 | Summer Rain | | | | | Dry |
| | 12-Oct-06 | October Dry | 1063 | 7.70 | 10.8 | 7.8 | No flow. Lots of leaves and grass. |
| | 13-Dec-06 | Fall Rain | 707 | 7.40 | 6.8 | 9.05 | No flow. |
| | 23-Mar-07 | Spring Freshet | 825 | 8.00 | 5.6 | 8.88 | Slow to No Flow. Ice/slush blockage upstream. |
| | 26-Apr-07 | April Dry | | | | | Dry |
| | 17-May-07 | Spring Rain | 959 | 8.40 | 12.7 | 6.55 | Slow Flow, Clear. |
| | 19-Jun-07 | June Dry | | | | | Dry, No water next day after June 9 (9.8mm) and June 19 (22.4mm). |
| | 10-Aug-07 | August Dry | | | | | Dry, No water next day after largest rain event on August 7 (18mm). |
| | 26-Sep-07 | Summer Rain | | | | | Dry. No water next day after last rain event on Sept 26 (7.8mm). |
| | 10-Oct-07 | Fall Rain | | | | | Dry, 38 mm previous three days. |
| | 31-Oct-07 | October Dry | | | | | Dry |
| | 29-Nov-07 | Additional Fall | 1281 | 6.90 | 3.8 | 10 | Slow to No Flow, Clear. Leaves/silt buildup in ditch.. |
| | 09-Apr-08 | Spring Freshet | 806 | 7.10 | 9.7 | 8.62 | Clear. Slow flow |
| | 20-Aug-08 | Summer Dry | | | | | Dry. Attempts made after 13.7 mm of rain in last 7 days |
| | 16-Sep-08 | Summer Rain | 1422 | 7.20 | 16 | 4.97 | Clear. Very low flow. |
| | 18-Dec-08 | Fall Rain | 826 | 7.90 | 3.5 | 10.18 | Clear. Very little flow |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 5 | | | | | | | |
| | 28-May-09 | Spring Freshet | 589 | 7.60 | 15.1 | 7.86 | Silky |
| | 27-Jul-09 | Summer Dry | 1333 | 7.60 | 18.7 | 3.58 | No flow/ Clean |
| | 14-Oct-09 | | 1934 | 7.60 | 6.8 | 1.86 | Slow flow/ Clean |
| | 05-Nov-09 | | 1734 | 8.00 | 6.8 | 8.86 | Slow flow/ Clean |
| | 26-Nov-09 | | 1944 | 8.00 | 9.2 | 8.8 | Slow flow/ Clean |
| | 16-Dec-09 | | 1944 | 8.00 | 6.2 | 7.78 | Broke ice |
| | 25-Mar-10 | | 6.67 | 7.10 | 7.3 | 573 | Slightly cloudy with average flow |
| | 20-Aug-10 | | 9.5 | 20.40 | 8.4 | 701 | Brownish colour |
| | 04-Oct-10 | | 4.48 | 8.50 | 7 | 904 | Slightly murky with average flow |
| | 29-Nov-10 | | 8.15 | 1.30 | 7.1 | 682 | Clear, Ice on surface, |
| SW 7 | | | | | | | |
| | 10-Apr-92 | | N/A | N/A | 10 | | Clear |
| | 11-Jun-92 | | 800 | 7.40 | 14 | | Clear, red staining on creek bottom |
| | 13-Aug-92 | | 1000 | 7.40 | 14 | | Slightly yellow, good flow |
| | 10-Nov-92 | | 900 | 7.60 | 6 | | Reddish staining on creek bottom and grass |
| | 20-Apr-93 | | 700 | 9.20 | 5 | | Clear, fast, gravel bottom, red staining on culvert |
| | 10-Jun-93 | | 800 | 8.40 | 15 | | Clear |
| | 01-Sep-93 | | | | 1 | | Dry, not sampled |
| | 26-May-94 | Spring Rain | 700 | 8.10 | 11 | 7.56 | Light yellow colour, good flow |
| | 17-Jun-94 | June Dry | 1000 | 7.10 | 21 | 1.4 | Yellow colour, some ponding and stagnant areas |
| | 17-Aug-94 | August Dry | | | | | Dry, not sampled |
| | 21-Nov-94 | Fall Rain | 2000 | 8.10 | | 11.15 | Clear, gravelly bottom, weeds |
| | 17-May-95 | Spring Rain | 900 | 7.10 | 13 | 5.26 | Clear sample, gravel bottom, little growth |
| | 30-Jun-95 | June Dry | | | | | Dry, not sampled |
| | 23-Aug-95 | August Dry | | | | | Dry, not sampled |
| | 28-Nov-95 | Fall Rain | 810 | 7.80 | 4.4 | 9 | Some grass and leaves in creek |
| | 18-Jun-96 | Spring Rain | 800 | N/A | 16 | 5.7 | Fairly good flow, some sticks in culvert |
| | 06-Aug-96 | June Dry | 1400 | N/A | 18 | N/A | No flow |
| | 07-Oct-96 | August Dry | N/A | N/A | N/A | N/A | Little flow, scum observed on water down stream |
| | 06-Dec-96 | Fall Rain | 819 | 7.60 | 2.3 | 5.2 | Good flow |
| | 26-Nov-97 | Fall Rain | 1182 | 7.90 | 3.6 | 3.8 | Water clear and running |
| | 17-Jun-98 | Spring Rain | | | | | No flow |
| | 07-Dec-98 | Fall Rain | 781 | 7.60 | 10.1 | 4.2 | Some flow; lots of woody debris |
| | 23-Apr-99 | Spring Freshet | | | | | Not sampled |
| | 30-Jun-99 | Summer Rain | N/A | N/A | N/A | N/A | |
| | 06-Dec-99 | Fall Rain | 447 | 6.80 | 9 | 5.2 | Good flow |
| | 15-Mar-00 | Spring Freshet | 187 | 7.10 | 4 | 4.5 | Some flow; clear |
| | 20-Sep-00 | Fall Dry | | | | | No sample - flow path is dry; lined with old leaves |
| | 27-Nov-00 | Fall Rain | 672 | 6.70 | 7.1 | 4.3 | Some flow; lots of leaves lining bottom |
| | 20-Mar-01 | Spring Freshet | 104 | 7.30 | 2.2 | 4.2 | Water flowing, clear |
| | 10-Oct-01 | Fall Dry | | | | | Dry |
| | 03-Dec-01 | Fall rain | 704 | 7.80 | 8 | 3 | Slight flow, clear |
| | 18-Feb-02 | Spring Freshet | | | | | Not enough water to grab samples. |
| | 15-May-02 | Spring Rain | | | | | No flow observed |
| | 06-Jun-02 | Summer Rain | 924 | 7.50 | 13 | | Very little flow, almost still. A few sticks in culvert, clear. |
| | 17-Jun-02 | June Dry | | | | | No dry conditions due to heavy rains, Dry event could not be completed |
| | 12-Aug-02 | August Dry | | | | | No rain for 10 days, no surface water to sample |
| | 25-Oct-02 | October Dry | | | | | No more than 2 dry days in a row, no samples taken |
| | 23-Dec-02 | Fall Rain | | | | | Rains for 2 days, still not enough water to sample |
| | 18-Mar-03 | Spring Freshet | 592 | 7.60 | 2.2 | 6.84 | Excellent flow, clear. Note construction on adjacent property |
| | 26-May-03 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 7 | | | | | | | |
| | 18-Jun-03 | June Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 06-Aug-03 | Summer Rain | | | | | Very little water, construction continues on adjacent property |
| | 26-Aug-03 | August Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 24-Oct-03 | October Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 19-Nov-03 | Fall Rain | | | | | No Access due to construction |
| | 10-Mar-04 | Spring Freshet | | | | | No access due to construction on adjacent property along Watson Rd. |
| | 22-Apr-04 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 27-May-04 | April Dry | 468 | 7.83 | 16.1 | 6.81 | Water has visible TSS. Note silt fence near construction has been breached by about 0.9m of water. |
| | 28-Jun-04 | June Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 17-Aug-04 | August Dry | | | | | No flow, small puddle, not enough water to sample. |
| | 19-Oct-04 | Summer Rain | | | | | No flow |
| | 28-Oct-04 | October Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 08-Dec-04 | Fall Rain | 406 | 7.98 | 9.3 | | Moderate flow, clear. Silt fence up stream is overflowing with water. |
| | 04-Apr-05 | Spring Freshet | 499 | 8.00 | 6.1 | 6.72 | Good flow, Silt fence up-stream is being breached by water |
| | 30-Apr-05 | April Dry | | | | | No sample taken due to rain |
| | 16-May-05 | Spring Rain | | | | | No sample taken, not enough run-off after rain event on May 16. Very little rain during rest of month. |
| | 30-Jun-05 | June Dry | | | | | No samples taken, dry |
| | 25-Aug-05 | August Dry | | | | | No sample taken, not enough run-off even after rain event earlier in the week of Aug 25. |
| | 28-Sep-05 | Summer Rain | | | | | No sample taken, not enough run-off |
| | 14-Oct-05 | October Dry | | | | | No sample taken, Dry |
| | 30-Nov-05 | Fall Rain | | | | | No sample taken, not enough run-off |
| | 24-Apr-06 | Spring Freshet | 459 | 7.80 | 9.2 | 8.23 | Good flow. Visible silt. |
| | 30-Apr-06 | April Dry | | | | | No Dry Period During Month |
| | 31-May-06 | Spring Rain | | | | | Rain event early in month, no run-off occuring later in month. |
| | 09-Jun-06 | June Dry | | | | | Low Water |
| | 09-Aug-06 | August Dry | | | | | Low Water |
| | 14-Sep-06 | Summer Rain | 307 | 7.90 | 17.6 | 6.21 | Good Flow. Lots of TSS (Silty). |
| | 12-Oct-06 | October Dry | 377 | 7.80 | 9.8 | 7.55 | Good flow. Visible TSS. |
| | 13-Dec-06 | Fall Rain | 303 | 7.40 | 6.5 | 9.5 | Good flow. Visible TSS. |
| | 23-Mar-07 | Spring Freshet | 539 | 7.00 | 5.1 | 8.14 | Slow Flow, Visible TSS. |
| | 26-Apr-07 | April Dry | | | | | Dry |
| | 17-May-07 | Spring Rain | 479 | 8.00 | 12.9 | 8.05 | Good Flow, Lots of Visible TSS. |
| | 19-Jun-07 | June Dry | | | | | Dry, No water next day after June 9 (9.8mm) and June 19 (22.4mm). |
| | 10-Aug-07 | August Dry | | | | | Dry, No water next day after largest rain event on August 7 (18mm). |
| | 26-Sep-07 | Summer Rain | | | | | Dry. No water next day after last rain event on Sept 26 (7.8mm). |
| | 10-Oct-07 | Fall Rain | 331 | 7.10 | 12.8 | 5.31 | Very Slow Flow, Visible TSS. |
| | 31-Oct-07 | October Dry | | | | | Dry |
| | 29-Nov-07 | Additional Fall | 950 | 7.00 | 4 | 10.2 | Flowing, Visible TSS. |
| | 09-Apr-08 | Spring Freshet | 469 | 7.10 | 7.5 | 7.97 | Good Flow. Visible TSS |
| | 20-Aug-08 | Summer Dry | | | | | Dry. Attempts made after 13.7 mm of rain in last 7 days |
| | 16-Sep-08 | Summer Rain | 385 | 7.90 | 17.5 | 5.76 | Low flow. Visible TSS. |
| | 18-Dec-08 | Fall Rain | 676 | 7.60 | 4.5 | 6.77 | Low flow. Visible TSS. |
| | 28-May-09 | Spring Freshet | 586 | 7.40 | 13.6 | 15.5 | Good flow |
| | 27-Jul-09 | Summer Dry | 365 | 8.00 | 18.9 | 6.26 | Slow flow |
| | 14-Oct-09 | | 620 | 7.40 | 9.2 | 7.92 | Slow flow |
| | 05-Nov-09 | | 840 | 7.40 | 4.2 | 4.92 | Slow flow |
| | 26-Nov-09 | | 517 | 9.80 | 9.2 | 4.92 | Slow flow |
| | 16-Dec-09 | | 517 | 9.80 | 4.7 | 8.73 | Broke ice |
| | 25-Mar-10 | | 9.87 | 6.90 | 7.1 | 556 | Clear with good flow |
| | 20-Aug-10 | | 6.61 | 22.50 | 7.7 | 587 | Clear with low flow |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 7 | | | | | | | |
| | 04-Oct-10 | | 6.86 | 10.40 | 7.4 | 516 | Clear with good flow |
| | 29-Nov-10 | | 9.27 | 4.00 | 7.4 | 651 | Clear with lower than average flow |
| SW 15 | | | | | | | |
| | 15-Apr-92 | | N/A | N/A | N/A | N/A | Clear, some sediment |
| | 11-Jun-92 | | 700 | 7.40 | 17 | | Oily film, some sediment, red stain along bank |
| | 13-Aug-92 | | 700 | 7.40 | 15 | | Oily film, Heavy biological build up on weeds, creating excessive sediment |
| | 10-Nov-92 | | 700 | 7.80 | 4 | | Clear, good volume |
| | 20-Apr-93 | | 600 | 9.00 | 6 | | Very clear, rock/gravel bottom, high volume |
| | 10-Jun-93 | | 700 | 9.00 | 13 | | Fairly clear, mud/rock bottom, weeds |
| | 02-Sep-93 | | 500 | 7.80 | 23 | 5.14 | Dark colour, lots of algal growth |
| | 30-Nov-93 | | 1000 | 8.20 | 1 | 11.34 | Clear, ice on edge |
| | 26-May-94 | Spring Rain | 700 | 8.30 | 14 | 3.7 | Yellow colour, good volume, suspended particles visible |
| | 17-Jun-94 | June Dry | 700 | 7.20 | 26 | 5.3 | Cloudy yellow, abundant invertebrates, little flow |
| | 17-Aug-94 | August Dry | 600 | 7.20 | 13 | 6.74 | Lots of algae growth, oily film on surface, muddy bottom |
| | 21-Nov-94 | Fall Rain | 700 | 8.10 | 6 | 10.83 | Murky dark colour, ditch has been reworked on right side |
| | 17-May-95 | Spring Rain | 600 | 7.30 | 15 | 5.25 | Very clear, algae on top, some suspended sediments, good flow |
| | 30-Jun-95 | June Dry | 700 | 7.60 | 22 | 5.48 | Faily clear, algae, slow flow |
| | 23-Aug-95 | August Dry | 700 | 7.00 | 23 | 6.7 | Clear, lots of algae, lots of minnows |
| | 28-Nov-95 | Fall Rain | 810 | 7.60 | 2 | 9 | Ice and snow but creek is clear |
| | 18-Jun-96 | Spring Rain | 700 | N/A | 17 | 3 | Lots of suspended particulate, good flow |
| | 06-Aug-96 | June Dry | 700 | N/A | 19 | | Little flow |
| | 07-Oct-96 | August Dry | N/A | N/A | N/A | N/A | Little flow, clear |
| | 06-Dec-96 | Fall Rain | 692 | 7.70 | 1.7 | 4.8 | Some ice on creek, cold water |
| | 07-Aug-97 | Summer Dry | 708 | 8.20 | 13.3 | 1.7 | No flow; algae plentiful |
| | 26-Nov-97 | Fall Rain | 603 | 7.60 | 4.1 | 4.2 | Clear and running; looks like a trap is at fence |
| | 17-Jun-98 | Spring Rain | | | | | No flow |
| | 07-Dec-98 | Fall Rain | 1118 | 7.00 | 8.9 | 3.3 | Good flow, lots of vegetation in water |
| | 23-Apr-99 | Spring Freshet | | | | | Not sampled |
| | 30-Jun-99 | Summer Rain | N/A | N/A | N/A | N/A | |
| | 06-Dec-99 | Fall Rain | 175 | 6.50 | 7.5 | 4.1 | Flowing well |
| | 15-Mar-00 | Spring Freshet | 151 | 6.90 | 2.3 | 5.2 | Good flow; visible flow from ditch into creek |
| | 20-Sep-00 | Fall Dry | 241 | 8.00 | 16.1 | 2.3 | Very little flow; film observed on water on downstream side; called B.Taylor @ Waste to look at water |
| | 27-Nov-00 | Fall Rain | 569 | 7.60 | 4.7 | 4.1 | Good flow; ice in creek |
| | 20-Mar-01 | Spring Freshet | 90 | 7.10 | 2.2 | 2.8 | Good flow, visible run-off from ditch (west) |
| | 10-Oct-01 | Fall Dry | 644 | 7.80 | 7.9 | 2.1 | Very little flow, clear |
| | 03-Dec-01 | Fall rain | 607 | 7.50 | 6 | 3.5 | Good Flow, clear |
| | 18-Feb-02 | Spring Freshet | | | | | Not enough water to grab samples. |
| | 15-May-02 | Spring Rain | | | | | No flow observed |
| | 06-Jun-02 | Summer Rain | 636 | 7.80 | 14.2 | | Good flow, some visible TSS |
| | 17-Jun-02 | June Dry | | | | | No dry conditions due to heavy rains, Dry event could not be completed |
| | 12-Aug-02 | August Dry | | | | | No rain for 10 days, no surface water to sample |
| | 25-Oct-02 | October Dry | | | | | No more than 2 dry days in a row, no samples taken |
| | 23-Dec-02 | Fall Rain | | | | | Rains for 2 days, still not enough water to sample |
| | 18-Mar-03 | Spring Freshet | 319 | 7.60 | 3.6 | 5.95 | Good flow, clear, snow and ice in culvert |
| | 26-May-03 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 18-Jun-03 | June Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 06-Aug-03 | Summer Rain | 463 | 7.70 | 18.7 | 1.31 | Some flow, clear, orange tinge to creek bottom and sides. |
| | 26-Aug-03 | August Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 24-Oct-03 | October Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 19-Nov-03 | Fall Rain | 348 | 7.60 | 15.4 | 4.74 | Good flow, clear |
| | 10-Mar-04 | Spring Freshet | 368 | 7.30 | 12 | 5.27 | Clear, good flow |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 15 | | | | | | | |
| | 22-Apr-04 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 27-May-04 | April Dry | 523 | 7.71 | 15.6 | 3.11 | Clear, flowing well. Duck with duckling observed in creek. |
| | 28-Jun-04 | June Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 17-Aug-04 | August Dry | 540 | 7.38 | 14.7 | 1.59 | Very little flow, reddish tinge on creek bed, some TSS. |
| | 19-Oct-04 | Summer Rain | 756 | 7.40 | 7.2 | 4.52 | Some flow, clear. |
| | 28-Oct-04 | October Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 08-Dec-04 | Fall Rain | 533 | 7.66 | 13 | | Good flow, clear. Some patchy ice. |
| | 04-Apr-05 | Spring Freshet | 413 | 7.65 | 7.7 | 6.97 | Fast flow |
| | 30-Apr-05 | April Dry | | | | | No sample taken due to rain |
| | 16-May-05 | Spring Rain | | | | | No sample taken, not enough run-off after rain event on May 16. Very little rain during rest of month. |
| | 30-Jun-05 | June Dry | | | | | No samples taken, dry |
| | 25-Aug-05 | August Dry | | | | | No sample taken, not enough run-off even after rain event earlier in the week of Aug 25. |
| | 28-Sep-05 | Summer Rain | | | | | No sample taken, not enough run-off |
| | 14-Oct-05 | October Dry | | | | | No sample taken, Dry |
| | 30-Nov-05 | Fall Rain | | | | | No sample taken, not enough run-off |
| | 24-Apr-06 | Spring Freshet | 514 | 7.60 | 11.4 | 5.37 | Good flow, clear. |
| | 30-Apr-06 | April Dry | | | | | No Dry Period During Month |
| | 31-May-06 | Spring Rain | | | | | Rain event early in month, no run-off occuring later in month. |
| | 09-Jun-06 | June Dry | | | | | Low Water |
| | 09-Aug-06 | August Dry | | | | | Low Water |
| | 14-Sep-06 | Summer Rain | 568 | 7.30 | 17.4 | 2.1 | Very little flow. Dead shunk observed. Sample upstream of this point. |
| | 12-Oct-06 | October Dry | 580 | 7.70 | 10 | 3.66 | Good flow, clear. |
| | 13-Dec-06 | Fall Rain | 364 | 7.30 | 8.6 | 7.56 | Good flow, clear. |
| | 23-Mar-07 | Spring Freshet | 432 | 7.00 | 5.7 | 6.99 | Fast Turbulent Flow, Clear |
| | 26-Apr-07 | April Dry | | | | | Dry |
| | 17-May-07 | Spring Rain | 510 | 7.60 | 13.7 | 4.55 | Good Flow, Clear |
| | 19-Jun-07 | June Dry | | | | | Dry, No water next day after June 9 (9.8mm) and June 19 (22.4mm). |
| | 10-Aug-07 | August Dry | | | | | Dry, No water next day after largest rain event on August 7 (18mm). |
| | 26-Sep-07 | Summer Rain | | | | | Dry. No water next day after last rain event on Sept 26 (7.8mm). |
| | 10-Oct-07 | Fall Rain | 1105 | 7.10 | 14.9 | 2.45 | Very Low Flow, clear. |
| | 31-Oct-07 | October Dry | | | | | Dry |
| | 29-Nov-07 | Additional Fall | 1124 | 6.90 | 7.4 | 5.35 | Slow Flow, Ice covered. |
| | 09-Apr-08 | Spring Freshet | 329 | 7.00 | 8 | 5.15 | Clear. Fast flow |
| | 20-Aug-08 | Summer Dry | | | | | Dry. Attempts made after 13.7 mm of rain in last 7 days |
| | 16-Sep-08 | Summer Rain | 540 | 8.00 | 18.5 | 2.27 | Clear. Good flow |
| | 18-Dec-08 | Fall Rain | 444 | 7.40 | 7.6 | 7.3 | Clear. Good flow |
| | 28-May-09 | Spring Freshet | 517 | 7.20 | 15.2 | 0.99 | Some sediment/ Good flow |
| | 27-Jul-09 | Summer Dry | 540 | 7.20 | 17.8 | 1.99 | Slow flow/ Lots of vegetation |
| | 14-Oct-09 | | 659 | 7.00 | 11 | 4.35 | Slow flow/ Lots of vegetation |
| | 05-Nov-09 | | 703 | 7.70 | 3 | 3.45 | Slow flow/ Lots of vegetation |
| | 26-Nov-09 | | 644 | 7.70 | 7 | 8.45 | Slow flow/ Lots of vegetation |
| | 16-Dec-09 | | 644 | 7.70 | 3.9 | 6.43 | Broke ice |
| | 25-Mar-10 | | 8.21 | 7.30 | 7.2 | 720 | clear |
| | 20-Aug-10 | | 3.52 | 20.40 | 7.6 | 608 | Very clear with good flow, lots of aquatic vegetation |
| | 04-Oct-10 | | 5.63 | 10.20 | 7.4 | 595 | Very clear with good flow |
| | 29-Nov-10 | | 9.1 | 1.60 | 7.3 | 688 | Clear with average flow |
| SW 16 | | | | | | | |
| | 02-Sep-93 | | 500 | 7.40 | 23 | 5.14 | Fairly clear, numerous bugs |
| | 05-Nov-93 | | 1200 | 8.00 | 8 | 10.61 | Fairly clear |
| | 30-Nov-93 | | 1000 | 8.10 | 2 | 10.72 | Yellow colour |
| | 13-Apr-94 | Spring Freshet | 700 | 7.20 | 5.5 | 5.51 | Reddish yellow colour, fairly clear |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 16 | | | | | | | |
| | 26-Apr-94 | Spring Rain | 750 | 8.00 | 11 | 10.54 | Yellowish colour, very clear, reddish colouring on mud and colvert |
| | 04-May-94 | Spring Dry | 800 | 8.30 | 10 | 7.58 | Brown colour, very silty, good flow |
| | 17-Jun-94 | June Dry | 800 | 7.20 | 16 | 9.75 | Clear, red colouring on bottom, very slow flow |
| | 04-Aug-94 | Summer Rain | 1000 | 8.10 | 16 | 10.7 | Note minnow creek at culvert, lots of traffic apparent |
| | 17-Aug-94 | August Dry | 1000 | 7.70 | 14 | 9.75 | Culvert red stained, muddy bottom/ weeds, insect/frogs/minnows |
| | 14-Oct-94 | Fall Dry | 900 | 8.10 | 9 | 10.52 | Yellowish colours, slightly silty due to activity in storm culvert(Oct 13) |
| | 21-Nov-94 | Fall Rain | 700 | 8.10 | 8 | 10.72 | Very cloudy brown silty, good volume |
| | 13-Apr-95 | Spring Freshet | 900 | 8.00 | 4 | 10.95 | New gate, some rust in water from gate, mud bottom, yellow sample |
| | 28-Apr-95 | Spring Dry | 700 | 8.10 | 10 | 10.13 | Clear sample, muddy bottom, algea around gate, lots of bugs/shells |
| | 17-May-95 | Spring Rain | 1600 | 7.60 | 12 | 9.76 | Very silty, cloudy sample, gravel/mud bottom |
| | 30-Jun-95 | June Dry | 700 | 7.80 | 17 | 8.1 | Clear, minimal flow |
| | 11-Aug-95 | Summer Rain | N/A | N/A | N/A | N/A | |
| | 23-Aug-95 | August Dry | 800 | 7.30 | 15 | 8.11 | Fairly clear/yellowish sample, gravel piled from ditching, algea present |
| | 20-Oct-95 | Fall Dry | 800 | 7.80 | 11 | 9.46 | Clear/pale yellow sample, surface bugs, gravel washed in from west side. |
| | 28-Nov-95 | Fall Rain | 1177 | 7.60 | 5.4 | 10 | Very little to no flow, water appears to be standing |
| | 16-Apr-96 | Spring Freshet | 687 | 8.10 | 4.8 | 6.4 | Very little flow |
| | 27-May-96 | Spring Dry | 800 | 7.80 | 9 | 4.6 | Some debris behide grate |
| | 18-Jun-96 | Spring Rain | N/A800 | N/A | 15 | 5.5 | Very murky, good flow |
| | 06-Aug-96 | June Dry | N/A1100 | N/A | 17 | N/A | Some sticks behide grate |
| | 07-Oct-96 | August Dry | N/A | N/A | N/A | N/A | Lots of reeds, water level high |
| | 30-Oct-96 | Summer Rain | 798 | 8.00 | 8.9 | 5 | Sticks behind grate |
| | 06-Dec-96 | Fall Rain | 1809 | 7.40 | 4 | 5 | Little flow |
| | 16-Apr-97 | Spring Freshet | 890 | 7.80 | 6 | 7.2 | Straw trapped behind grate should be cleaned |
| | 23-May-97 | Spring Dry | 803 | 7.40 | 7.2 | 4.4 | |
| | 07-Aug-97 | Summer Dry | 843 | 7.20 | 13.4 | 4 | Beaver dam downstream |
| | 18-Nov-97 | Fall Dry | 1089 | 7.60 | 6.4 | 5 | Open water, very deep, clear |
| | 26-Nov-97 | Fall Rain | 1037 | 7.40 | 7.6 | 5.5 | Water churned up, flow |
| | 17-Jun-98 | Spring Rain | 699 | 7.90 | 16.3 | 3.2 | Some flow, lots of suspended particles, invertebrates present |
| | 07-Dec-98 | Fall Rain | 639 | 7.60 | 10.6 | 5.2 | Murky, very little flow, can hear water trickling through beaver dam |
| | 23-Apr-99 | Spring Freshet | 555 | 7.90 | 8.9 | 6.1 | Debris behind grate, some flow, grate cleaned, better flow |
| | 30-Jun-99 | Summer Rain | N/A | N/A | N/A | N/A | |
| | 06-Dec-99 | Fall Rain | 398 | 6.90 | 6.2 | 6.9 | Some flow, sticks behind culvert |
| | 15-Mar-00 | Spring Freshet | 428 | 7.20 | 4.1 | 5.4 | Some flow; removed sticks behind grate |
| | 27-Mar-00 | MOEE Samples | 168.2 | 7.00 | 5.3 | 5 | Cloudy; some TSS |
| | 20-Sep-00 | Fall Dry | 131 | 7.60 | 13.5 | 5.1 | |
| | 27-Nov-00 | Fall Rain | 553 | 7.20 | 8.1 | 5 | Very little flow; bags removed from behind grate |
| | 20-Mar-01 | Spring Freshet | 120 | 7.60 | 4.3 | 5.2 | Some flow, weeds have accumulated behind grate on culvert |
| | 10-Oct-01 | Fall Dry | 878 | 7.50 | 9.9 | 3.4 | Very little flow, trickle |
| | 03-Dec-01 | Fall rain | 407 | 7.80 | 7.8 | 2.7 | |
| | 18-Feb-02 | Spring Freshet | | | | | Not enough water to grab samples. |
| | 17-Apr-02 | April Dry | | | | | Dry Conditions with warm temperatures - no flows observed |
| | 15-May-02 | Spring Rain | | | | | No flow observed |
| | 06-Jun-02 | Summer Rain | 879 | 7.00 | 11.2 | | Some flow, tadpoles seen, clear |
| | 17-Jun-02 | June Dry | | | | | No dry conditions due to heavy rains, Dry event could not be completed |
| | 12-Aug-02 | August Dry | | | | | No rain for 10 days, no surface water to sample |
| | 25-Oct-02 | October Dry | | | | | No more than 2 dry days in a row, no samples taken |
| | 23-Dec-02 | Fall Rain | | | | | Rains for 2 days, still not enough water to sample |
| | 18-Mar-03 | Spring Freshet | 365 | 7.40 | 4.7 | 9.19 | Good flow, visible TSS |
| | 28-Apr-03 | April Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 26-May-03 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 18-Jun-03 | June Dry | | | | | No sample taken - Could not get 5 days of no rain |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | Comments |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 16 | | | | | | | |
| | 06-Aug-03 | Summer Rain | 778 | 8.00 | 16.3 | 6.85 | Very little flow, cloudy, some debri noted behind grate |
| | 26-Aug-03 | August Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 24-Oct-03 | October Dry | | | | | No sample taken - Could not get 5 days of no rain |
| | 19-Nov-03 | Fall Rain | 529 | 7.80 | 10.6 | 7.81 | Good flow, debri noted behind grate |
| | 10-Mar-04 | Spring Freshet | 630 | 7.30 | 2.5 | 7.49 | Murky/clear water churning, some flow. Grass observed behined grate. |
| | 22-Apr-04 | Spring Rain | | | | | No sample taken - Although there was rain, no water to sample |
| | 27-May-04 | April Dry | 826 | 8.00 | 13.2 | 4.87 | Lock missing from grate. Debri observed behind grate, which was removed. |
| | 28-Jun-04 | June Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 17-Aug-04 | August Dry | 821 | 8.27 | 13.9 | 8.32 | Little flow, numerous water spiders observed. |
| | 19-Oct-04 | Summer Rain | 1006 | 8.60 | 8.9 | 9.73 | Low flow, observe silt build up behide grate (~0.2m) |
| | 28-Oct-04 | October Dry | | | | | No sample taken - Could not get 5 days of dry conditions due to significant rain all month |
| | 08-Dec-04 | Fall Rain | 575 | 7.95 | 5 | | Moderate flow, clear. Silt observed at culvert exit (from SW1). |
| | 04-Apr-05 | Spring Freshet | 624 | 7.93 | 4.8 | 7.45 | debri (sticks, weeds) behind grate |
| | 30-Apr-05 | April Dry | | | | | No sample taken due to rain |
| | 16-May-05 | Spring Rain | | | | | No sample taken, not enough run-off after rain event on May 16. Very little rain during rest of month. |
| | 30-Jun-05 | June Dry | | | | | No samples taken, dry |
| | 25-Aug-05 | August Dry | | | | | No sample taken, not enough run-off even after rain event earlier in the week of Aug 25. |
| | 28-Sep-05 | Summer Rain | | | | | No sample taken, not enough run-off |
| | 14-Oct-05 | October Dry | | | | | No sample taken, Dry |
| | 30-Nov-05 | Fall Rain | | | | | No sample taken, not enough run-off |
| | 24-Apr-06 | Spring Freshet | 562 | 7.80 | 8.4 | 7.48 | Good flow. Weeds behind grate. |
| | 30-Apr-06 | April Dry | | | | | No Dry Period During Month |
| | 31-May-06 | Spring Rain | | | | | Rain event early in month, no run-off occuring later in month. |
| | 09-Jun-06 | June Dry | | | | | Low Water |
| | 09-Aug-06 | August Dry | | | | | Low Water |
| | 14-Sep-06 | Summer Rain | 767 | 8.00 | 16.6 | 8.06 | No flow, cloudy. Some TSS. |
| | 12-Oct-06 | October Dry | 624 | 7.70 | 8.6 | 6.86 | Slow flow, clear. |
| | 13-Dec-06 | Fall Rain | 508 | 7.40 | 4.9 | 8.3 | Good flow, clear. Some grass behind grate. |
| | 23-Mar-07 | Spring Freshet | 577 | 7.40 | 5.5 | 6.28 | Good Flow, Some weed behind grate. |
| | 26-Apr-07 | April Dry | | | | | Dry |
| | 17-May-07 | Spring Rain | 609 | 7.90 | 12.1 | 6.68 | Good Flow, Clear |
| | 19-Jun-07 | June Dry | | | | | Dry, No water next day after June 9 (9.8mm) and June 19 (22.4mm). |
| | 10-Aug-07 | August Dry | | | | | Dry, No water next day after largest rain event on August 7 (18mm). |
| | 26-Sep-07 | Summer Rain | | | | | Dry. No water next day after last rain event on Sept 26 (7.8mm). |
| | 10-Oct-07 | Fall Rain | 1678 | 7.00 | 12.8 | 7.42 | No Flow, visible TSS. Slight buildup of mud ~2m downstream. |
| | 31-Oct-07 | October Dry | | | | | Dry |
| | 29-Nov-07 | Additional Fall | 878 | 7.00 | 4.5 | 11.8 | Flowing, Clear |
| | 09-Apr-08 | Spring Freshet | 574 | 7.00 | 10.5 | 6.27 | Clear. Good flow. Some grass behide grate |
| | 20-Aug-08 | Summer Dry | | | | | Dry |
| | 16-Sep-08 | Summer Rain | 659 | 7.40 | 16.2 | 4.64 | Clear. Moderate flow. Silt blowing down and washing into creek. |
| | 18-Dec-08 | Fall Rain | 613 | 7.90 | 4 | 7.11 | |
| | 28-May-09 | Spring Freshet | 759 | 7.60 | 12.4 | 4.62 | Some sediment/ Good flow |
| | 27-Jul-09 | Summer Dry | 401 | 7.80 | 23 | 4.32 | Slow flow/ Lots of vegetation/ Also two bags of garbage ( yard waste) |
| | 14-Oct-09 | | 883 | 7.70 | 7.8 | 9.81 | no flow/ Lots of vegetation/ Also two bags of garbage ( yard waste) |
| | 05-Nov-09 | | 991 | 7.60 | 7.6 | 9.66 | |
| | 26-Nov-09 | | 999 | 7.80 | 8.3 | 12.33 | |
| | 16-Dec-09 | | 999 | 7.80 | 2.4 | 6.06 | |
| | 25-Mar-10 | | 7.76 | 6.50 | 7.5 | 769 | clear |
| | 20-Aug-10 | | 5.88 | 19.70 | 7.9 | 718 | Brownish clour with lots of floating aquatic vegetation |
| | 04-Oct-10 | | 7.03 | 9.40 | 7.4 | 867 | Cloudy with floating aquatic vegetation |
| | 29-Nov-10 | | 9.05 | 4.70 | 6.9 | 954 | Slightly cloudy |

## C4: Surface Water Field Measurements

| Station | Date | Sample Event | Field Parameters | | | | **Comments** |
|---|---|---|---|---|---|---|---|
| | | | Cond | pH | Temp | DO | |
| | | | uS | | C | mg/L | |
| SW 16 | | | | | | | |

# 2010 Semi-Annual MISA Priority Pollutants Analysis from the Main Tank

## Conventional Parameters

| Analytical Test Groups (ATG) | Semi-Annual Samples | | | |
|---|---|---|---|---|
| | August 19, 2010 | | November 29, 2010 | |
| | MDL (mg/L) | Result (mg/L) | MDL (mg/L) | Result (mg/L) |
| **Metals** | | | | |
| Ag | 0.0001 | <0.0001 | 0.0001 | <0.0001 |
| Al | 0.005 | 0.039 | 0.005 | 0.028 |
| As | 0.001 | 0.001 | 0.001 | <0.001 |
| Au | 0.05 | <0.05 | 0.05 | <0.05 |
| B | 0.01 | 2.5 | 0.01 | 1.3 |
| Ba | 0.05 | 0.34 | 0.05 | 0.25 |
| Be | 0.0005 | <0.0005 | 0.0005 | <0.0005 |
| Bi | 0.001 | <0.001 | 0.001 | <0.001 |
| Ca | 0.05 | 160 | 0.05 | 150 |
| Cd | 0.0001 | <0.0001 | 0.0001 | <0.0001 |
| Ce | 0.05 | <0.05 | 0.05 | <0.05 |
| Co | 0.0005 | 0.0024 | 0.0005 | 0.0012 |
| Cr | 0.005 | <0.005 | 0.005 | <0.005 |
| Cs | 0.05 | <0.05 | 0.05 | <0.05 |
| Cu | 0.001 | 0.002 | 0.001 | 0.002 |
| Dy | 0.05 | <0.05 | 0.05 | <0.05 |
| Er | 0.05 | <0.05 | 0.05 | <0.05 |
| Eu | 0.05 | <0.05 | 0.05 | <0.05 |
| F | 0.1 | 0.2 | 0.1 | 0.1 |
| Fe | 0.05 | 5.6 | 0.05 | 2.9 |
| Ga | 0.05 | <0.05 | 0.05 | <0.05 |
| Gd | 0.05 | <0.05 | 0.05 | <0.05 |
| Ge | 0.05 | <0.05 | 0.05 | <0.05 |
| Hf | 0.05 | <0.05 | 0.05 | <0.05 |
| Ho | 0.05 | <0.05 | 0.05 | <0.05 |
| In | 0.05 | <0.05 | 0.05 | <0.05 |
| K | 0.05 | 40 | 0.05 | 20 |
| La | 0.05 | <0.05 | 0.05 | <0.05 |
| Li | 0.005 | 0.033 | 0.005 | 0.017 |
| Lu | 0.05 | <0.05 | 0.05 | <0.05 |
| Mg | 0.05 | 81 | 0.05 | 59 |
| Mn | 0.002 | 0.26 | 0.002 | 0.18 |
| Mo | 0.001 | <0.001 | 0.001 | <0.001 |
| Na | 0.05 | 230 | 0.05 | 160 |
| Nb | 0.05 | <0.05 | 0.05 | <0.05 |
| Nd | 0.05 | <0.05 | 0.05 | <0.05 |
| Ni | 0.001 | 0.016 | 0.001 | 0.008 |
| Os | 0.05 | <0.05 | 0.05 | <0.05 |
| P | 0.05 | 0.18 | 0.05 | 0.09 |
| Pb | 0.0005 | 0.0018 | 0.0005 | 0.0008 |
| Pd | 0.05 | <0.05 | 0.05 | <0.05 |
| Pr | 0.05 | <0.05 | 0.05 | <0.05 |
| Pt | 0.05 | <0.05 | 0.05 | <0.05 |
| Re | 0.05 | <0.05 | 0.05 | <0.05 |
| Rh | 0.05 | <0.05 | 0.05 | <0.05 |
| Ru | 0.05 | <0.05 | 0.05 | <0.05 |
| Sb | 0.0005 | <0.0005 | 0.0005 | <0.0005 |
| Sc | 0.05 | <0.05 | 0.05 | <0.05 |
| Se | 0.002 | <0.002 | 0.002 | <0.002 |
| Si | 0.05 | 11 | 0.05 | 9.6 |
| Sm | 0.05 | <0.05 | 0.05 | <0.05 |
| Sn | 0.001 | <0.001 | 0.001 | <0.001 |
| Sr | 0.001 | 0.47 | 0.001 | 0.38 |
| Ta | 0.05 | <0.05 | 0.05 | <0.05 |
| Tb | 0.05 | <0.05 | 0.05 | <0.05 |
| Ti | 0.05 | <0.05 | 0.05 | <0.05 |
| Tl | 0.00005 | <0.00005 | 0.00005 | <0.00005 |
| Tm | 0.05 | <0.05 | 0.05 | <0.05 |
| U | 0.0001 | 0.0004 | 0.0001 | 0.0006 |
| V | 0.001 | 0.003 | 0.001 | 0.002 |
| W | 0.05 | <0.05 | 0.05 | <0.05 |
| Y | 0.05 | <0.05 | 0.05 | <0.05 |
| Yb | 0.05 | <0.05 | 0.05 | <0.05 |
| Zn | 0.005 | 1.3 | 0.005 | 0.056 |
| Zr | 0.05 | <0.05 | 0.05 | <0.05 |

# 2010 Semi-Annual MISA Priority Pollutants Analysis from the Main Tank

## Conventional Parameters

| Analytical Test Groups (ATG) | Semi-Annual Samples | | | |
|---|---|---|---|---|
| | August 19, 2010 | | November 29, 2010 | |
| | MDL (mg/L) | Result (mg/L) | MDL (mg/L) | Result (mg/L) |
| **Conventional** | | | | |
| **BOD (C)** | 2 | 5 | 2 | 3 |
| **Cl-** | 2 | 360 | 5 | 250 |
| **COD** | 4 | 95 | 4 | 67 |
| **Sp. Cond.** (umhos/cm) | 1 | 2590 | 1 | 1920 |
| **Cr VI** | 0.005 | <0.005 | 0.005 | <0.005 |
| **DOC** | 0.2 | 32.1 | 0.2 | 20.2 |
| **F-** | 0.1 | 0.2 | 0.1 | 0.1 |
| **Hg** | 0.0001 | <0.0001 | 0.0001 | <0.0001 |
| **$NH_3$-N** | 0.5 | 42 | 0.5 | 19 |
| **$NO_2$-N** | 0.01 | 0.02 | 0.01 | 0.26 |
| **$NO_3$-N** | 0.1 | 0.3 | 0.1 | 1 |
| **Oil & Grs(A)** | 0.5 | <0.5 | 0.5 | <0.5 |
| **Oil & Grs(M)** | 0.5 | <0.5 | 0.5 | <0.5 |
| **Oil & Grs.** | 0.5 | <0.5 | 0.5 | <0.5 |
| **pH** | | 7.4 | | 7.86 |
| **Phenols** | 0.001 | <0.001 | 0.001 | 0.003 |
| **S=** | 0.02 | <0.02 | 0.02 | <0.02 |
| **SO4=** | 1 | 39 | 1 | 40 |
| **TDS** | 10 | 1660 | 10 | 1200 |
| **TOC** | 0.2 | 31.5 | 0.2 | 21.5 |
| **Total CN-** | 0.005 | <0.005 | 0.005 | <0.005 |
| **Total P** | 0.002 | 0.16 | 0.002 | 0.08 |
| **TSS** | 1 | 18 | 2 | 9 |
| **Total P** | | | | |

*Samples collected from main pumping station*
*MDL = method detection limit*
*ug/L = micrograms per Litre = parts per billion*
*mg/L = milligrams per Litre = parts per million*

# 2010 Semi-Annual MISA Priority Pollutants Analyisis from the Main Tank
## Organic Parameter Groups

AECOM

| Analytical Test Groups (ATG) | Semi-Annual Samples | | | |
|---|---|---|---|---|
| | August 19, 2010 | | November 29, 2010 | |
| | EQL | Result | EQL | Result |
| **ATG 16 Volatiles, Halogenated** | | | | |
| 1,1,1-Trichloroethane (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| 1,1,1,2-Tetrachloroethane | 0.2 | <0.2 | 0.2 | <0.2 |
| 1,1,2,2-Tetrachloroethane (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| 1,1,2-Trichlorethane (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| 1,1-Dichloroethane (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| 1,1-Dichloroethylene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| 1,2-Dichlorobenzene (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| 1,2-Dichloroethane (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| 1,2,-Dichloropropane (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| 1,3-Dichlorobenzene (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| 1,4-Dichlorobenzene (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| Acetone (ug/L) | 20 | <20 | 20 | <20 |
| Bromodichloromethane | 0.2 | <0.2 | 0.2 | <0.2 |
| Bromoform (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| Bromomethane (ug/L) | 1 | <1 | 1 | <1 |
| Carbon tetrachloride (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Chlorobenzene (ug/L) | 0.2 | 0.7 | 0.2 | 0.7 |
| Chloroform (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Cis-1,2-Dichloroethane (ug/L) | 0.2 | <0.2 | 0.2 | 0.3 |
| Cis-1,3-Dichloropropylene (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| Dibromochloromethane (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| Ethylene dibromide (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| Methyl-t-Butyl Ether (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| Methyl Ethyl Ketone (MEK) (ug/L) | 10 | <10 | 10 | <10 |
| Methyl Isobutyl Ketone (MIBK) (ug/L) | 10 | <10 | 10 | <10 |
| Methylene chloride (ug/L) | 1 | <1 | 1 | <1 |
| Tetrachloroethylene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Trans-1,2-Dichloroethylene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Trans-1,3-Dichloropropylene (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| Trichloroethylene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Vinyl chloride (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| **ATG 17 Volatiles, Non-Halogenated** | | | | |
| Benzene (ug/L) | 0.2 | 0.4 | 0.2 | 0.3 |
| Ethylbenzene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Styrene (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| Toluene (ug/L) | 0.4 | <0.4 | 0.4 | <0.4 |
| o-Xylene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| m-Xylene and p-Xylene (ug/L) | 0.2 | 0.3 | 0.2 | 0.5 |
| **ATG 18 Volatiles, Water Soluble** | | | | |
| Acrolein (ug/L) | 20 | <20 | 20 | <20 |
| Acrylonitrile (ug/L) | 10 | <10 | 10 | <10 |

# 2010 Semi-Annual MISA Priority Pollutants Analyisis from the Main Tank
## Organic Parameter Groups

AECOM

| Analytical Test Groups (ATG) | Semi-Annual Samples | | | |
|---|---|---|---|---|
| | August 19, 2010 | | November 29, 2010 | |
| | EQL | Result | EQL | Result |
| **ATG 19 Extractables, Base Neutral** | | | | |
| Acenaphthene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| 5-nitro Acenaphthene (ug/L) | 1 | <1 | 1 | <1 |
| Acenaphthylene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Anthracene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Benzo (a) anthracene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Benzo (a) pyrene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Benzo (b) fluroanthene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Benzo (g,h,i) perylene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Benzo (k) fluoranthene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Biphenyl (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| Camphene (ug/L) | 1 | <1 | 1 | <1 |
| 1-Chloronaphthalene (ug/L) | 1 | <1 | 1 | <1 |
| 2-Chloronaphthalene (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| Chrysene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Dibenzo (a,h) anthracene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Fluoranthene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Fluorene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Indeno (1,2,3-cd) pyrene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Indole (ug/L) | 1 | <1 | 1 | <1 |
| 1-Methylnaphthalene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| 2-Methylnaphthalene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Naphthalene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Perylene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Phenanthrene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Pyrene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| Benzylbutylphthalate (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| Bis (2-ethylhexyl) phthalate (ug/L) | 2 | 3 | 2 | <2 |
| Di-n-Butyl Phthalate (ug/L) | 2 | <2 | 2 | <2 |
| Di-n-Octyl Phthalate (ug/L) | 0.8 | <0.8 | 0.8 | <0.8 |
| 4-Bromophenyl phenyl ether (ug/L) | 0.3 | <0.3 | 0.3 | <0.3 |
| 4-Chlorophenyl phenyl ether (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| Bis (2-chloroisopropyl) ether (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| Bis (2-chloroethyl) ether (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| Diphenyl ether (ug/L) | 0.3 | <0.3 | 0.3 | <0.3 |
| 2,4-Dinitrotoluene (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| 2,6-Dinitrotoluene (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| Bis (2-chloroethoxy) methane (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| N-Nitrosodi-n-propylamine (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| **ATG 20 Extractables, Acid (Phenolics)** | | | | |
| 2,3,4-Trichlorophenol (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| 2,3,5-Trichlorophenol (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| 2,4,5-Trichlorophenol (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| 2,4,6-Trichlorophenol (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| 2,4-Dimethylphenol (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| 2,4-Dinitrophenol (ug/L) | 0.3 | <0.3 | 0.3 | <0.3 |
| 2,4-Dichlorophenol (ug/L) | 2 | <2 | 7 | <7 |
| 2,6-Dichlorophenol (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| 2-Chlorophenol (ug/L) | 0.3 | <0.3 | 0.3 | <0.3 |
| 4-Chloro-3-methylphenol (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| 4-Nitrophenol (ug/L) | 1 | <1 | 1 | <1 |
| m-Cresol & p-Cresol (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| o-Cresol (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |
| Pentachlorophenol (ug/L) | 1 | <1 | 1 | <1 |
| Phenol (ug/L) | 0.5 | <0.5 | 0.5 | <0.5 |

# 2010 Semi-Annual MISA Priority Pollutants Analyisis from the Main Tank
## Organic Parameter Groups

AECOM

| Analytical Test Groups (ATG) | Semi-Annual Samples | | | |
|---|---|---|---|---|
| | August 19, 2010 | | November 29, 2010 | |
| | EQL | Result | EQL | Result |
| **ATG 21 Extractables, Phenoxy Acid Herbicides** | | | | |
| 2,4,5-T (ug/L) | 1 | <1 | 1 | <1 |
| Silvex (ug/L) | 1 | <1 | 1 | <1 |
| 2,4-D (ug/L) | 1 | <1 | 1 | <1 |
| Dinoseb (ug/L) | 2 | <2 | 2 | <2 |
| 2,4-DB (ug/L) | 1 | <1 | 1 | <1 |
| Dichlorprop (ug/L) | 1 | <1 | 1 | <1 |
| Dicamba (ug/L) | 1 | <1 | 1 | <1 |
| MCPP (ug/L) | 2 | <2 | 2 | <2 |
| MCPA (ug/L) | 2 | 5 | 2 | 2 |
| Picloram (ug/L) | 5 | <5 | 5 | <5 |
| **ATG 22 Extractables, Organochlorine Pesticides** | | | | |
| Aldrin (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Alpha-BHC (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Beta-BHC (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Delta-BHC (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Gamma-BHC (ug/L) | 0.003 | <0.003 | 0.003 | <0.003 |
| Alpha-Chlordane (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Gamma-Chlordane (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| 4,4'-DDD (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| 4,4'-DDE (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| 4,4'-DDT (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| 2,4'-DDT (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Dieldrin (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Endosulfan I (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Endosulfan II (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Endosulfan Sulphate (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Endrin (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Endrin Aldehyde (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Heptachlor (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Heptachlor Epoxide (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| p,p Methoxychlor (ug/L) | 0.01 | <0.01 | 0.01 | <0.01 |
| Mirex (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Endrin Ketone (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Toxaphene (ug/L) | 0.2 | <0.2 | 0.2 | <0.2 |
| PCB's, Total (ug/L) | 0.05 | <0.05 | 0.1 | <0.1 |
| **ATG 23 Extractables, Neutral - Chlorinated** | | | | |
| Hexachloroethane (ug/L) | 0.01 | <0.01 | 0.01 | <0.01 |
| 1,2,4-Trichlorobenzene (ug/L) | 0.01 | <0.01 | 0.01 | <0.01 |
| 1,2,3-Trichlorobenzene (ug/L) | 0.01 | <0.01 | 0.01 | <0.01 |
| Hexachlorobutadiene (ug/L) | 0.009 | <0.009 | 0.009 | <0.009 |
| 2,4,5-Trichlorotoluene (ug/L) | 0.01 | <0.01 | 0.01 | <0.01 |
| 1,2,3,5-Tetrachlorobenzene (ug/L) | 0.01 | <0.01 | 0.01 | <0.01 |
| 1,2,4,5-Tetrachlorobenzene (ug/L) | 0.01 | <0.01 | 0.01 | <0.01 |
| Hexachlorocyclopentadiene (ug/L) | 0.025 | <0.025 | 0.025 | <0.025 |
| 1,2,3,4-Tetrachlorobenzene (ug/L) | 0.01 | <0.01 | 0.01 | <0.01 |
| Pentachlorobenzene (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Hexachlorobenzene (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Octachlorostyrene (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |

# 2010 Semi-Annual MISA Priority Pollutants Analyisis from the Main Tank
## Organic Parameter Groups

AECOM

| Analytical Test Groups (ATG) | Semi-Annual Samples | | | |
|---|---|---|---|---|
| | August 19, 2010 | | November 29, 2010 | |
| | EQL | Result | EQL | Result |
| **ATG 24 Chlorinated Dibenzo-p-dioxins and Dibenzofurans** | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (pg/L) | | <0.655 | | <0.826 |
| Octachlorodibenzo-p-dioxin (pg/L) | | 7.4 | | <5.25 |
| Octachlorodibenzofuran (pg/L) | | <1.2 | | 1.1 |
| Total heptachlorinated dibenzo-p-dioxins (pg/L) | | 1.31 | | 0.86 |
| Total heptachlorinated dibenzofurans (pg/L) | | <1.51 | | <0.705 |
| Total hexachlorinated dibenzo-p-dioxins (pg/L) | | <0.978 | | <1.24 |
| Total hexachlorinated dibenzofurans (pg/L) | | <0.545 | | <0.574 |
| Total pentachlorinated dibenzo-p-dioxins (pg/L) | | <0.592 | | <0.786 |
| Total pentachlorinated dibenzofurans (pg/L) | | <0.551 | | <1.09 |
| Total tetrachlorinated dibenzo-p-dioxins (pg/L) | | <0.655 | | <0.9 |
| Total tetrachlorinated dibenzofurans (pg/L) | | <0.595 | | 2.38 |
| Total Toxic Equivalency | | **1.93** | | **2.47** |
| **ATG 26 Fatty and Resin Acids** | | | | |
| Palmitaleic acid (ug/L) | 0.005 | 0.016 | 0.005 | 0.006 |
| Palmitic acid (ug/L) | 0.005 | 0.009 | 0.005 | 0.017 |
| Linoleic acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Lenolenic acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Oleic acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Pimaric acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Sandracopimaric acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Isopimaric acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Palustric-Levopimaric acids (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Dehydroabietic acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Abietic acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| Neoabietic acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| 9,10-Dichlorostearic acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| 14-Chlorodehydroabietic acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |
| 12-Chlorodehydroabietic acid (ug/L) | 0.005 | 0.006 | 0.005 | <0.005 |
| Dichlorodehydroabietic acid (ug/L) | 0.005 | <0.005 | 0.005 | <0.005 |

*Notes:*

*MDL = Method Detection Limit*
*ug/L = micrograms per Litre = parts per billion*
*mg/L = milligrams per Litre = parts per million*
*pg/L = picograms per litre = parts per trillion*

## Table C7: Comparison of Downgradient Monitors in Buffer Land Boundary to Guideline B7 Criteria for 2010

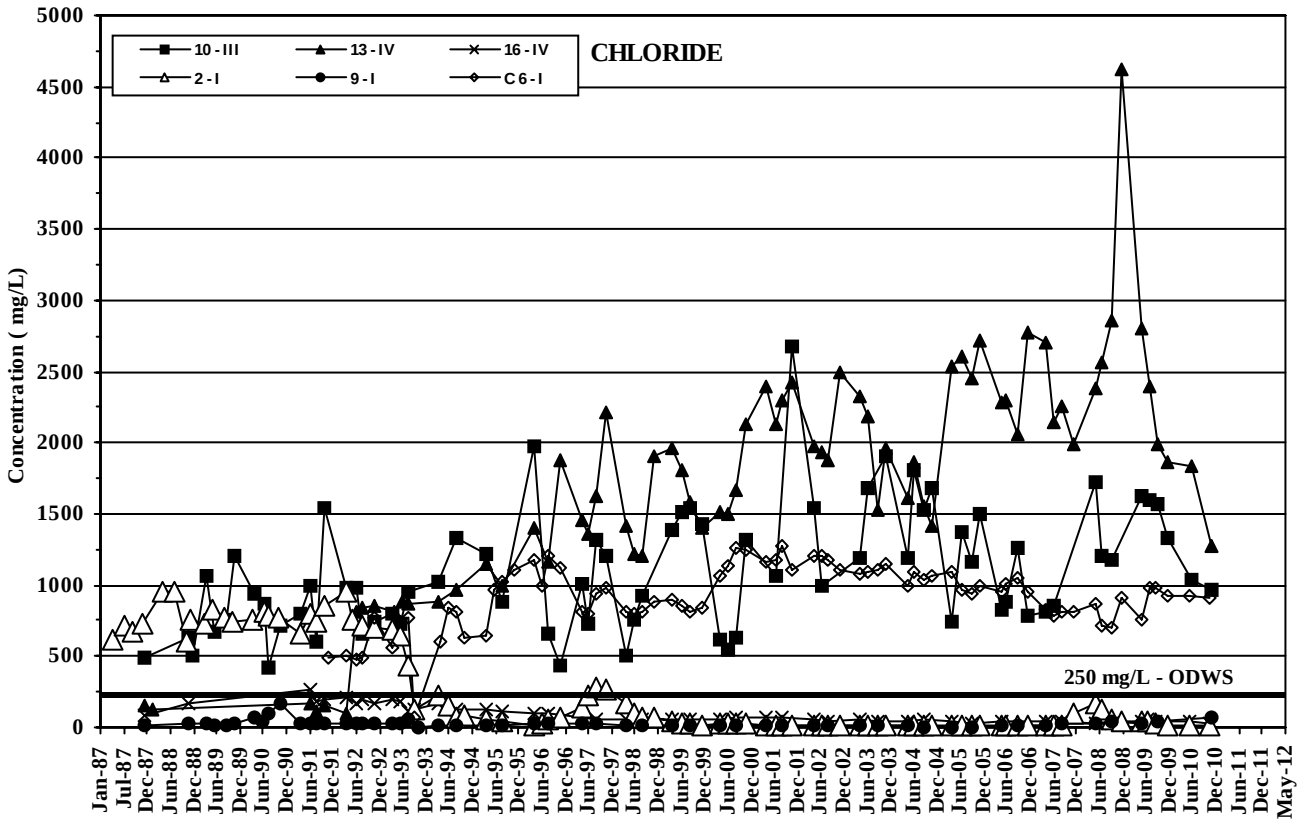
| Parameter | | Chloride | Sodium | Sulphate | Copper | Iron | Manganese | Zinc | Boron | Cadmium | Chromium | Lead | Nitrate | Nitrite |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ODWS** | | **250** | **200** | **500** | **1** | **0.30** | **0.05** | **5** | **5** | **0.005** | **0.05** | **0.01** | **10** | **1** |
| Background | | 49.5 | 15.4 | 49.50 | | 0.35 | 0.01 | 0.01 | 0.028 | | 0.01 | | 0.13 | 0.01 |
| **2-I** | 18-May-10 | 17.0 | 15.0 | 111.0 | | **2.9** | **0.047** | 0.01 | 0.180 | | < 0.01 | | 0.70 | 0.01 |
| | 21-Oct-10 | 12.0 | 11.0 | 102.0 | | **5.5** | **0.072** | 0.01 | 0.170 | | < 0.01 | | < 0.10 | < 0.01 |
| **2-II** | 21-Oct-10 | 5.0 | 5.5 | 45.0 | | < 0.10 | **0.048** | 0.17 | 0.073 | | < 0.01 | | 1.60 | < 0.01 |
| **9-I** | 27-Oct-10 | 74.0 | 37.0 | 168.0 | | **0.36** | **0.26** | 0.09 | 0.330 | | < 0.01 | | < 0.10 | < 0.01 |
| **10-II** | 19-May-10 | **918** | **270** | 28.0 | | **3.1** | **0.36** | 0.01 | 0.029 | | < 0.01 | | < 0.10 | 0.01 |
| | 27-Oct-10 | **957** | **320** | 19.0 | | **8.6** | **0.27** | < 0.01 | 0.027 | | < 0.01 | | 0.20 | < 0.01 |
| **13-III** | 19-May-10 | 2.0 | 23.0 | 5.0 | | < 0.10 | < 0.00 | 0.01 | 0.087 | | < 0.01 | | 0.10 | < 0.01 |
| | 27-Oct-10 | 2.0 | 23.0 | 3.0 | | < 0.10 | < 0.00 | < 0.01 | 0.076 | | < 0.01 | | 0.30 | < 0.01 |
| **13-IV** | 19-May-10 | **1830** | **1000** | 68.0 | | **1.9** | **0.23** | < 0.03 | 0.079 | | < **0.03** | | < 0.10 | < 0.01 |
| | 27-Oct-10 | **1280** | **840** | 31.0 | | **3** | **0.15** | 0.01 | 0.037 | | < 0.01 | | < 0.10 | < 0.01 |
| **13-V** | 19-May-10 | 139.0 | **150** | 145.0 | | < 0.10 | < 0.00 | 0.05 | 0.036 | | < 0.01 | | < 0.10 | < 0.01 |
| | 27-Oct-10 | 76.0 | 78.0 | 96.0 | | < 0.10 | < 0.00 | 0.13 | 0.037 | | < 0.01 | | < 0.10 | < 0.01 |
| **14-II** | 19-May-10 | **1100** | **250** | 90.0 | | 0.13 | **0.043** | 0.03 | 0.220 | | < 0.01 | | 0.30 | < 0.01 |
| | 02-Nov-10 | **919** | **270** | 125.0 | | **0.71** | **0.35** | 0.03 | 0.170 | | < 0.00 | | < 0.10 | 0.08 |
| **14-III** | 19-May-10 | 21.0 | 20.0 | 6.0 | | **23** | **0.65** | < 0.01 | 0.110 | | < 0.01 | | < 0.10 | < 0.01 |
| | 02-Nov-10 | 27.0 | 20.0 | 19.0 | | **9.1** | **0.35** | 0.02 | 0.170 | | < 0.01 | | < 0.10 | < 0.01 |
| **15-III** | 18-May-10 | 15.0 | 46.0 | 17.0 | | < 0.10 | 0.01 | 0.01 | 0.100 | | < 0.01 | | 0.50 | < 0.01 |
| | 25-Oct-10 | 16.0 | 49.0 | 14.0 | | 0.32 | **0.033** | 0.01 | 0.110 | | < 0.01 | | < 0.10 | < 0.01 |
| **15-IV** | 18-May-10 | 17.0 | 13.0 | 33.0 | | 0.34 | **0.042** | 0.02 | 0.270 | | < 0.01 | | 0.60 | < 0.01 |
| | 25-Oct-10 | 12.0 | 10.0 | 26.0 | | **1.2** | **0.18** | 0.01 | 0.170 | | < 0.01 | | < 0.10 | < 0.01 |
| **15-V** | 18-May-10 | 8.0 | 6.9 | 17.0 | | 0.15 | **0.3** | 0.01 | 0.150 | | < 0.01 | | 0.30 | < 0.01 |
| | 25-Oct-10 | 18.0 | 13.0 | 61.0 | | **2.6** | **1.2** | 0.02 | 0.540 | | < 0.01 | | 0.70 | 0.03 |
| **16-IV** | 18-May-10 | 43.0 | 40.0 | 232.0 | | **0.46** | **0.11** | 0.02 | **1.5** | | < 0.01 | | **2.9** | < 0.01 |
| | 21-Oct-10 | 34.0 | 40.0 | 221.0 | | **4.6** | **0.17** | 0.02 | **1.4** | | < 0.01 | | 0.60 | < 0.01 |
| **16-V** | 18-May-10 | | | | | | | | | | | | | |
| | 21-Oct-10 | | | | | | | | | | | | | |
| **17-III** | 27-Oct-10 | 3.0 | 4.2 | 33.0 | | 0.22 | 0.03 | < 0.01 | 0.013 | | < 0.01 | | < 0.10 | < 0.01 |
| **17-IV** | 20-May-10 | 20.0 | 2.3 | 7.0 | | < 0.10 | < 0.00 | 0.04 | 0.011 | | < 0.01 | | 0.20 | < 0.01 |
| | 27-Oct-10 | | | | | | | | | | | | | |
| **18-III** | 20-May-10 | 8.0 | 7.4 | **1310** | | < 0.10 | **0.063** | 0.11 | 0.100 | | < 0.01 | | 0.50 | < 0.01 |
| | 27-Oct-10 | 15.0 | 11.0 | **963** | | < 0.10 | **0.13** | 0.12 | 0.073 | | < 0.01 | | 1.00 | < 0.01 |
| **35-I** | 20-May-10 | | | | | | | | | | | | | |
| | 28-Oct-10 | 4.0 | 3.4 | 10.0 | | 0.27 | **0.04** | < 0.01 | 0.022 | | < 0.01 | | 0.20 | < 0.01 |

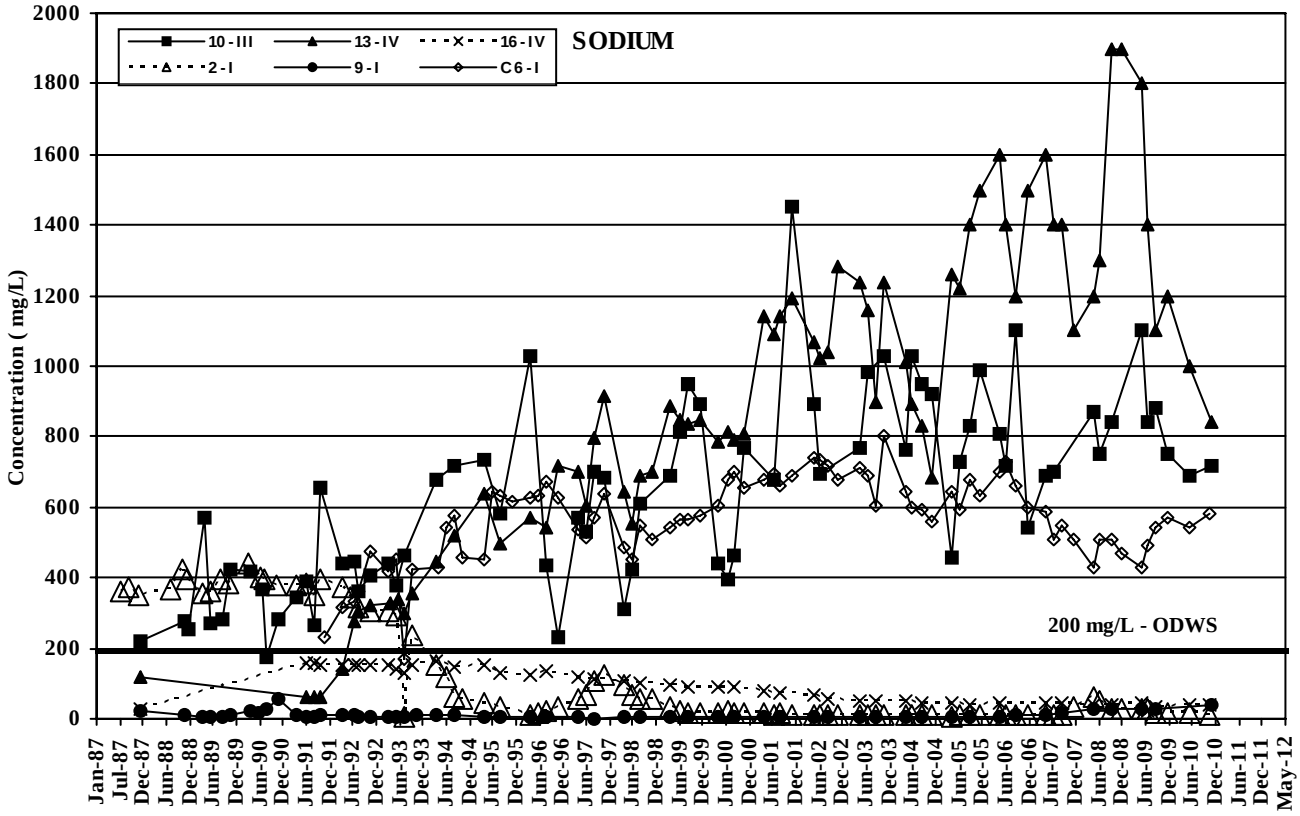
Average concentration in 2010 from monitors 4-II,19-II and 19-IV used in comparison to Guideline B7 values
Concentrations that exceed the RUG are denoted Bolding and Underlined
All concentrations are in mg/L

## Table C8: Comparison of Downgradient Bedrock Boundary Monitors to Guideline B7 Criteria for 2010

| Parameter | | Chloride | Sodium | Sulphate | Copper | Iron | Manganese | Zinc | Boron | Cadmium | Chromium | Lead | Nitrate | Nitrite |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ODWS | | 250 | 200 | 500 | 1 | 0.30 | 0.05 | 5 | 5 | 0.005 | 0.05 | 0.01 | 10 | 1 |
| Background | | 18.0 | 11.5 | 29.18 | | 0.35 | 0.01 | 0.01 | 0.040 | | 0.005 | | 0.10 | 0.01 |
| Guideline B7 Criteria | | 134 | 106 | 265 | | 0.35 | 0.03 | 2.51 | 1.28 | | 0.016 | | 2.58 | 0.26 |
| **13-I** | 27-Oct-10 | < 1.0 | 33.0 | < 1.0 | | < 0.10 | 0.01 | < 0.01 | 0.110 | | < 0.01 | | < 0.10 | < 0.01 |
| **14-IV** | 19-May-10 | < 1.0 | 39.0 | 2.0 | | < 0.10 | < 0.00 | < 0.01 | 0.094 | | < 0.01 | | < 0.10 | < 0.01 |
| | 02-Nov-10 | 1.0 | 40.0 | < 1.0 | | < 0.10 | 0.00 | < 0.01 | 0.085 | | < 0.01 | | < 0.10 | < 0.01 |
| **15-I** | 25-Oct-10 | 2.0 | 44.0 | < 1.0 | | < 0.10 | < 0.00 | < 0.01 | 0.095 | | < 0.01 | | < 0.10 | < 0.01 |
| **16-VII** | 18-May-10 | < 1.0 | 36.0 | < 1.0 | | < 0.10 | 0.00 | 0.01 | 0.098 | | < 0.01 | | < 0.10 | < 0.01 |
| | 25-Oct-10 | < 1.0 | 39.0 | < 1.0 | | 0.13 | 0.00 | < 0.01 | 0.110 | | < 0.01 | | < 0.10 | < 0.01 |
| **17-I** | 27-Oct-10 | < 1.0 | 35.0 | < 1.0 | | **0.49** | 0.01 | 0.01 | 0.088 | | < 0.01 | | < 0.10 | < 0.01 |
| **9A-I** | 27-Oct-10 | 10.0 | 44.0 | 2.0 | | 0.13 | 0.02 | < 0.01 | 0.110 | | < 0.01 | | < 0.10 | < 0.01 |

Average concentration in 2010 from monitors 4-IR, 19-I, 53-I, 54-I used in comparison to Guideline B7 values
Concentrations that exceed the Guideline B7 criteria are marked are bolded and underlined
Exceedances observed for lead are due to the Laboratory Method Detection Limit
All concentrations are in mg/L

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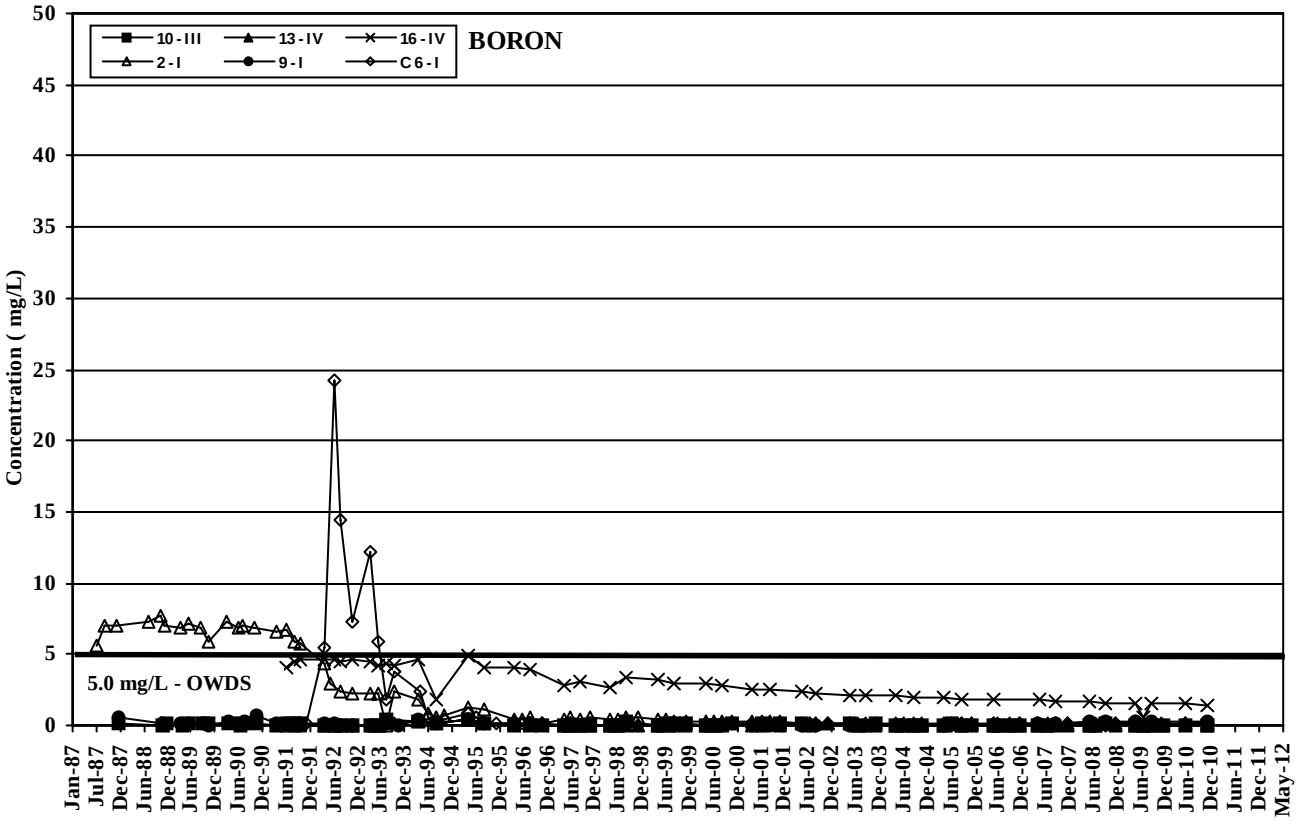
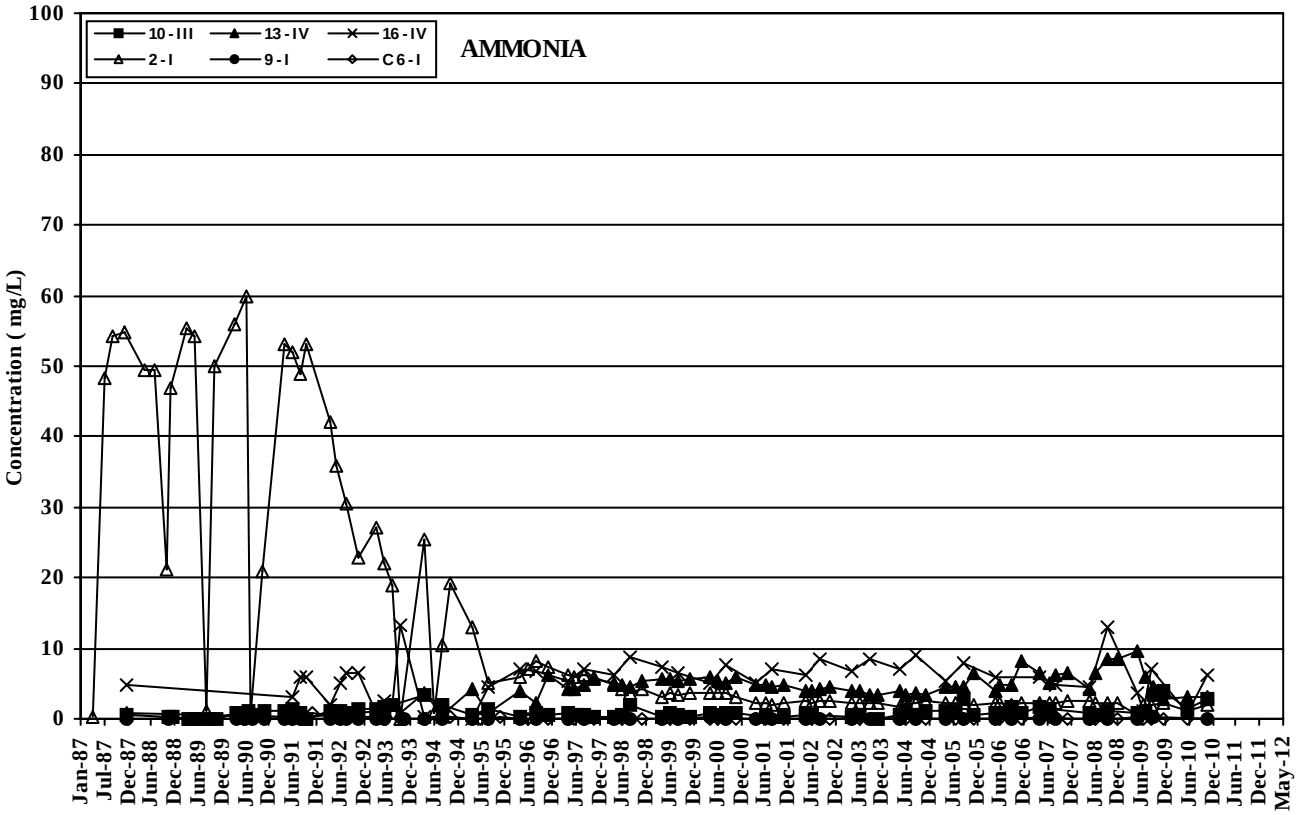
**Eastview Road Landfill Site**

## Ground Water Chemistry Trends
### Shallow Overburden South of Landfill

**FIGURE**
**C1**

**60191188**
12b C1 GW Chem Cl and Na - South of Land

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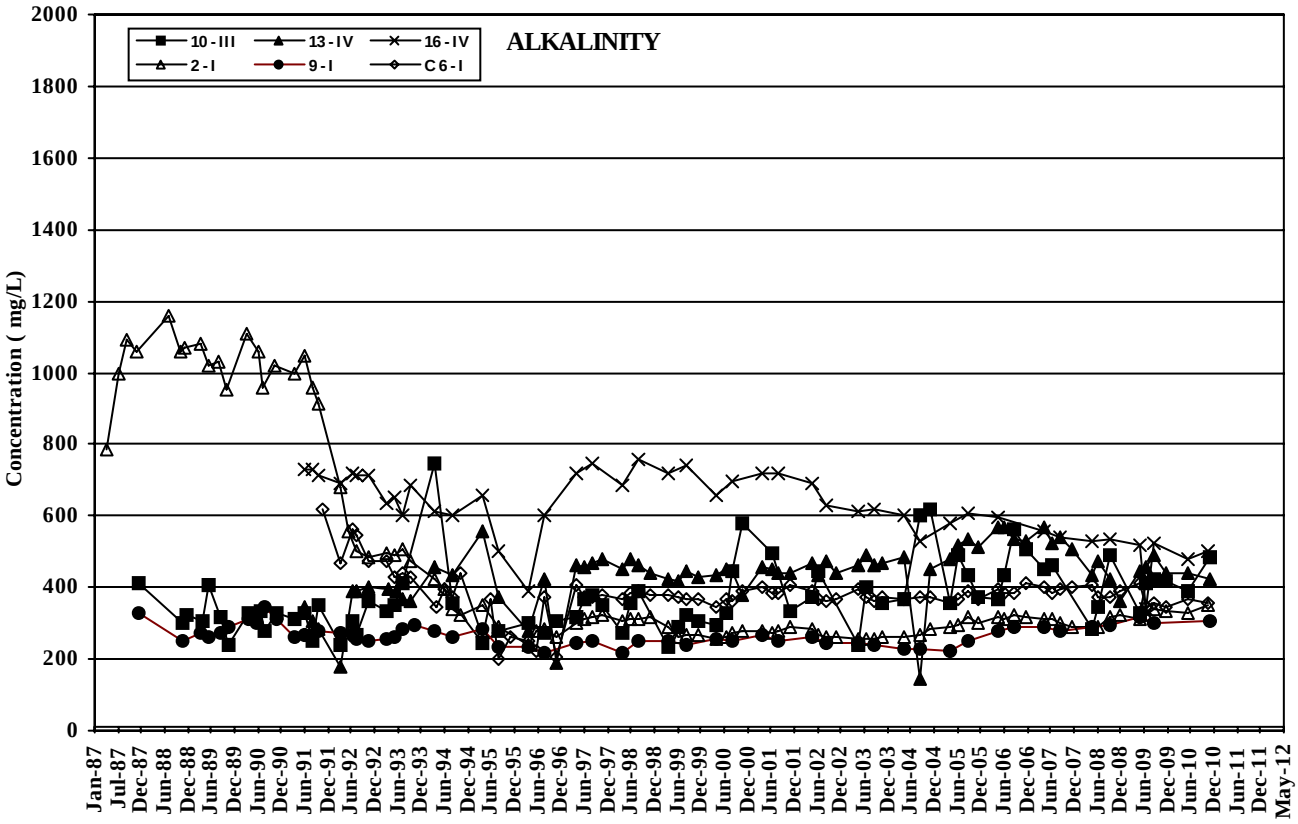
**Eastview Road Landfill Site**

## Ground Water Chemistry Trends
### Shallow Overburden South of Landfill

**FIGURE**
**C2**

**60191188**
12b C2 GW Chem B and NH3 - South of Land

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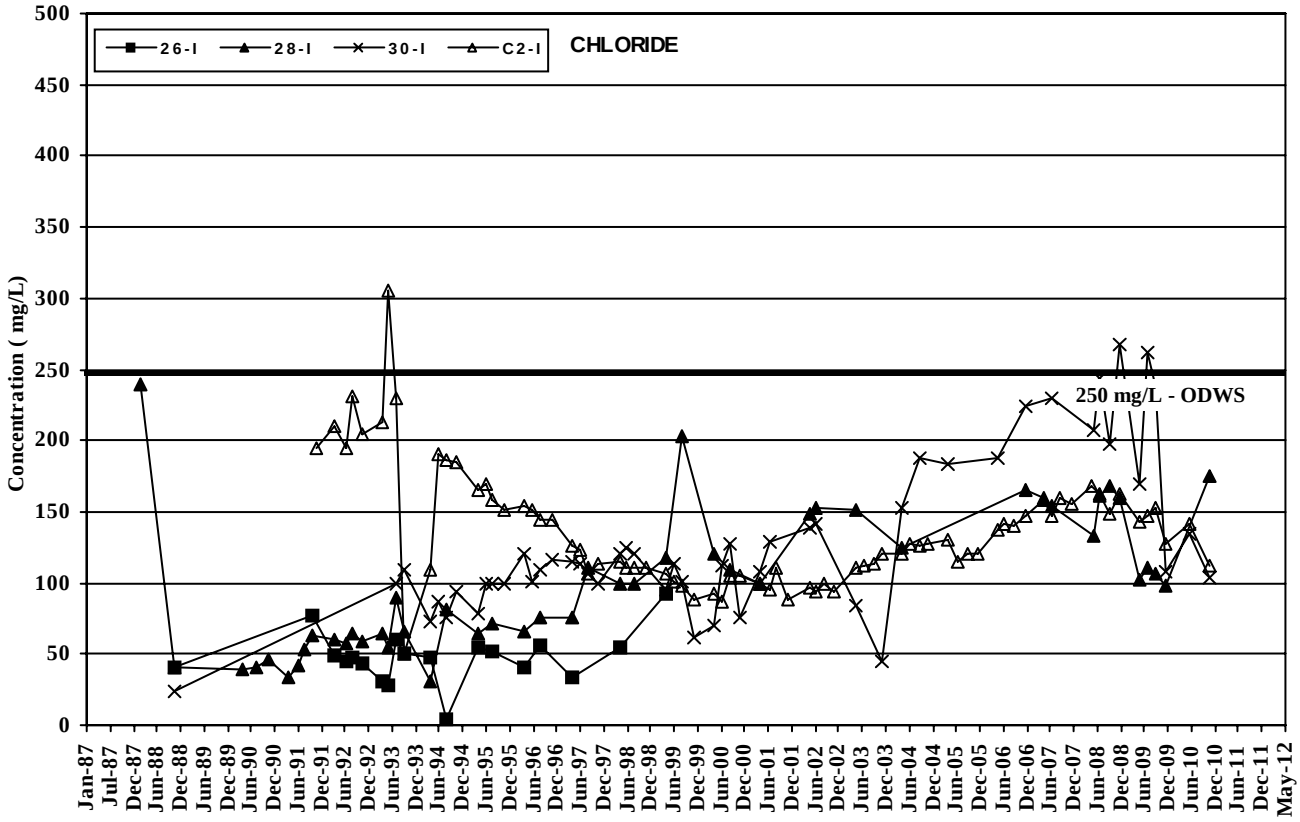
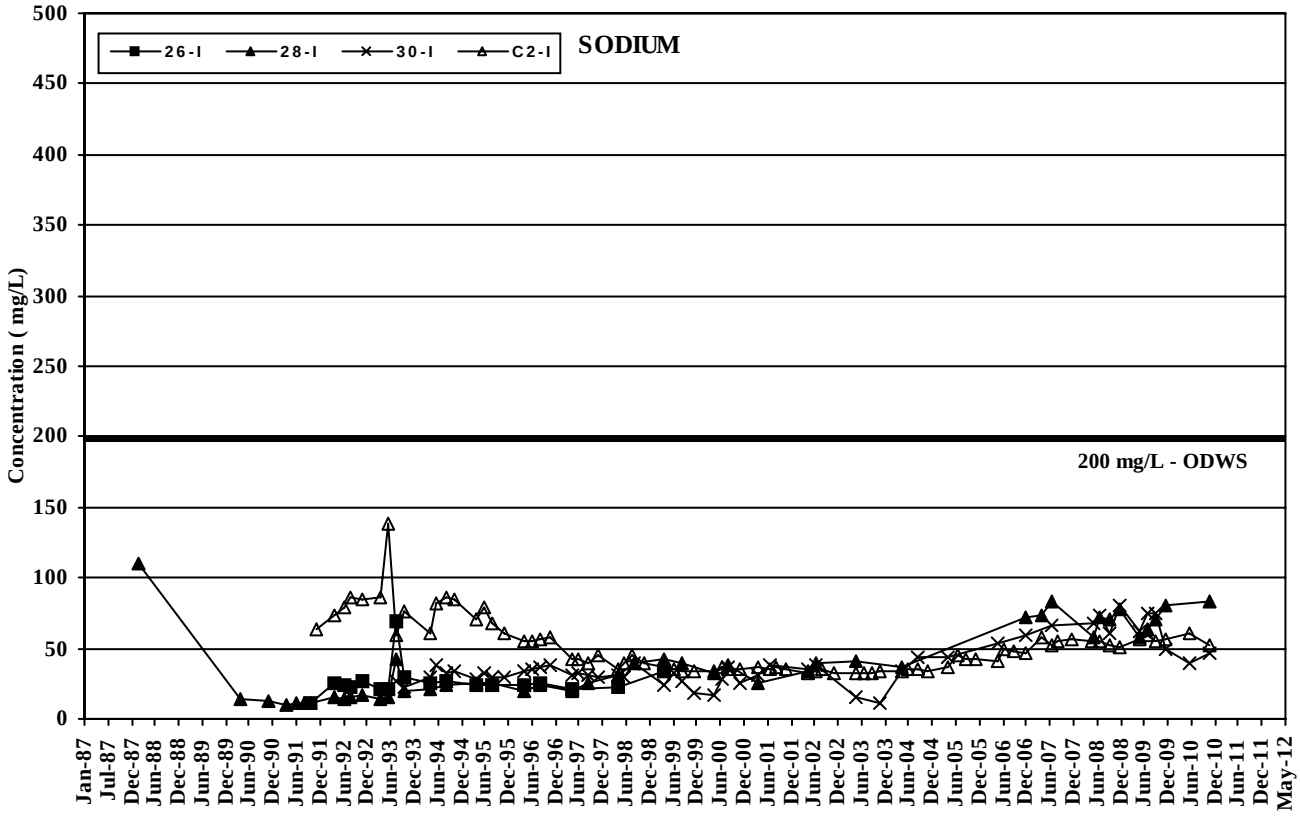
**Eastview Road Landfill Site**

## Ground Water Chemistry Trends
### Shallow Overburden South of Landfill

**FIGURE**
**C3**

**60191188**
12b C3 GW Chem Alk - South of Landfill

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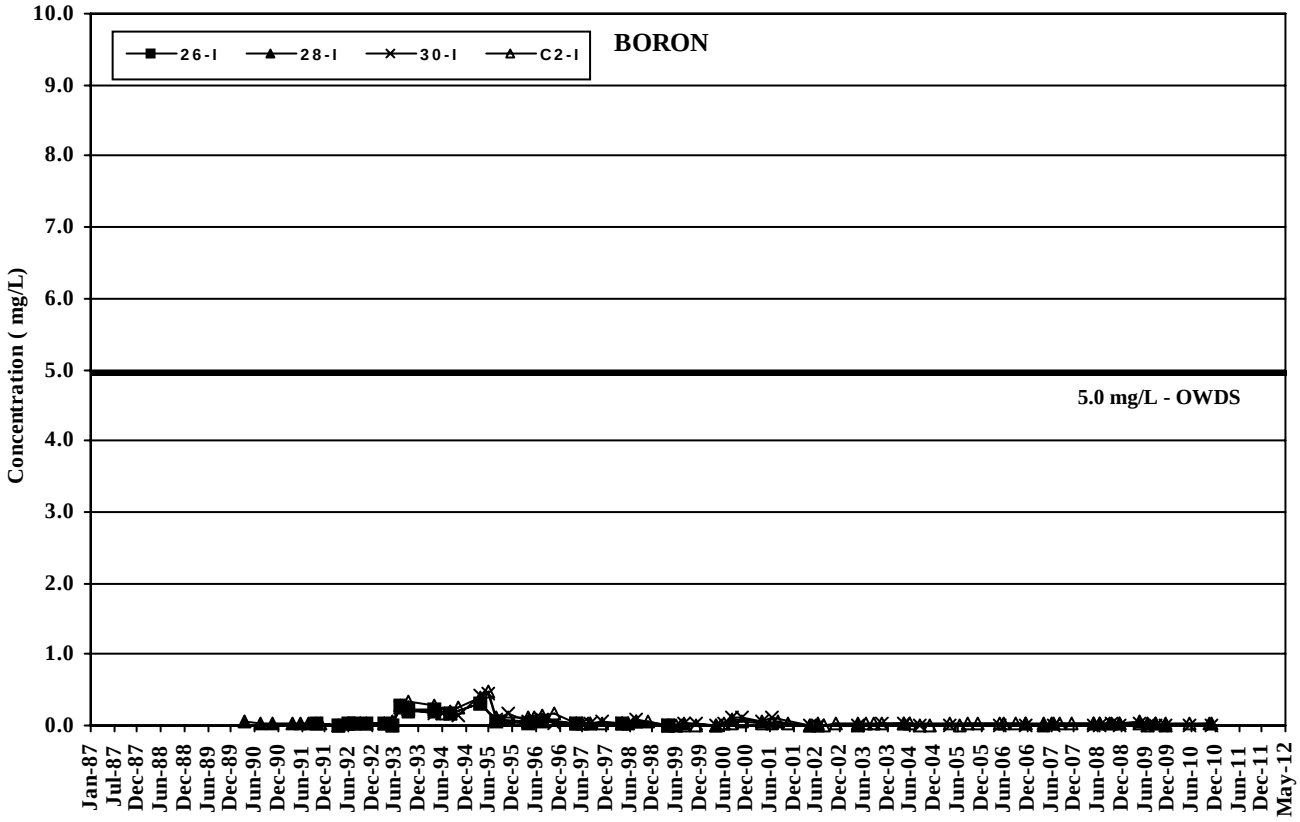
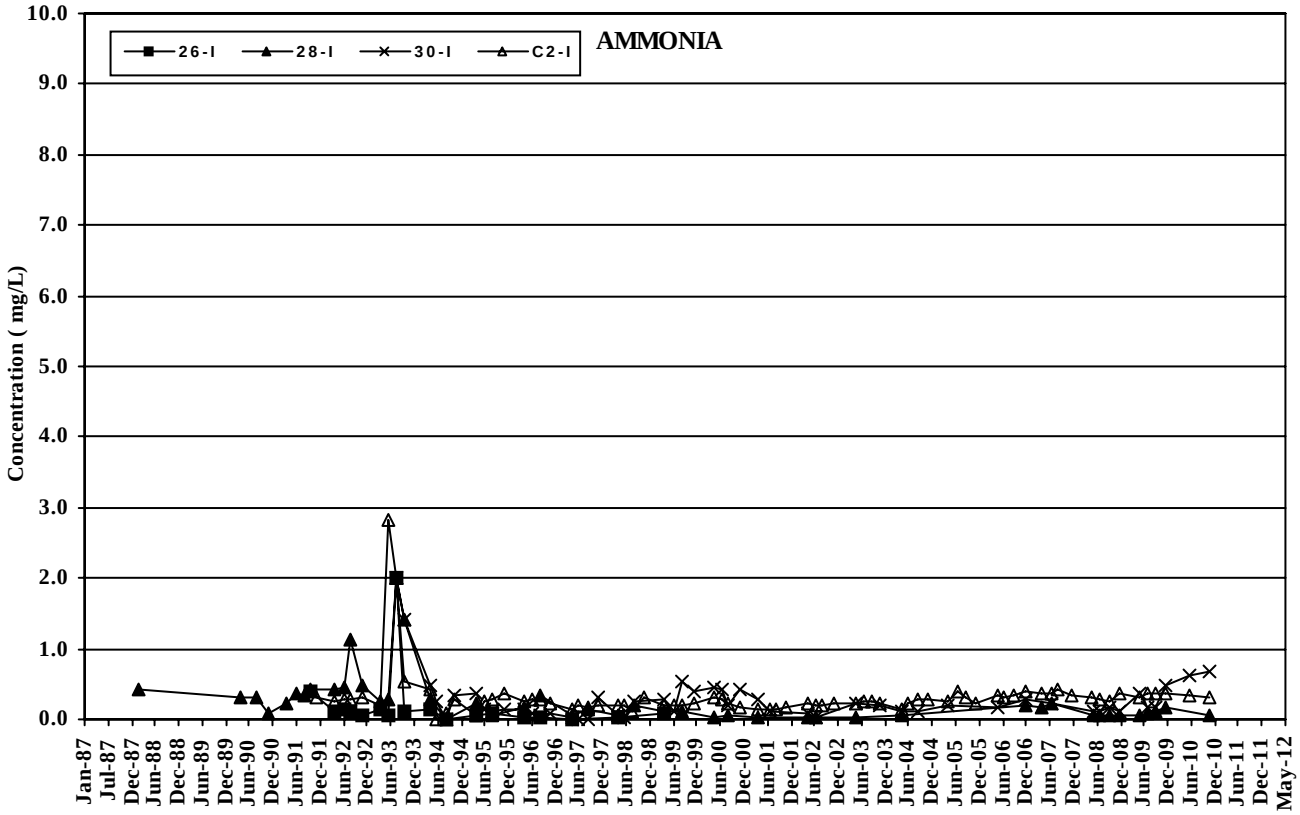
**Eastview Road Landfill Site**

## Ground Water Chemistry Trends
### Shallow Overburden South of Landfill

**FIGURE**
**C4**

**60191188**
12b C4 GW Chem Cl and Na - West of Landf

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**Eastview Road Landfill Site**

# Ground Water Chemistry Trends

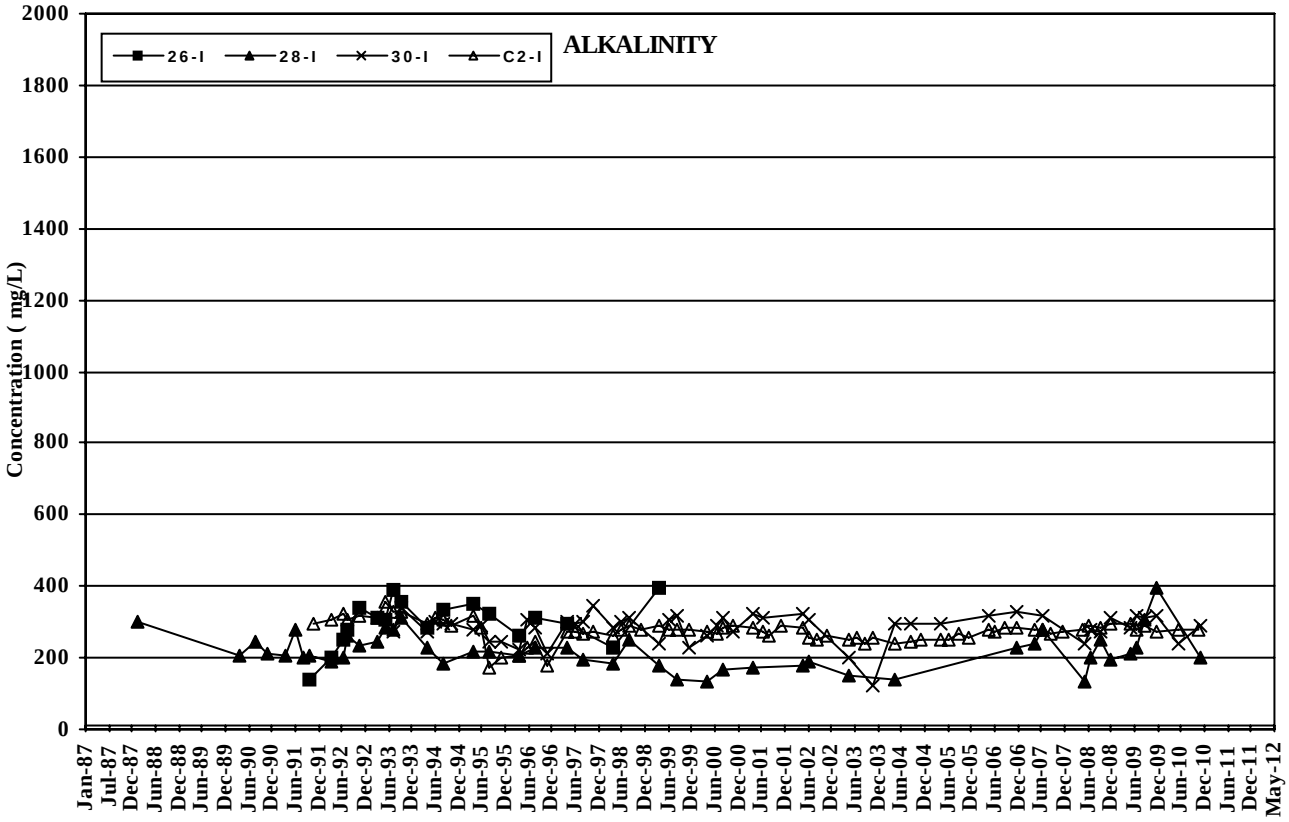
## Shallow Overburden South of Landfill

**FIGURE**

**C5**

**60191188**

12b C5 GW Chem B and NH3 - West of Landf

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**Eastview Road Landfill Site**

## Ground Water Chemistry Trends

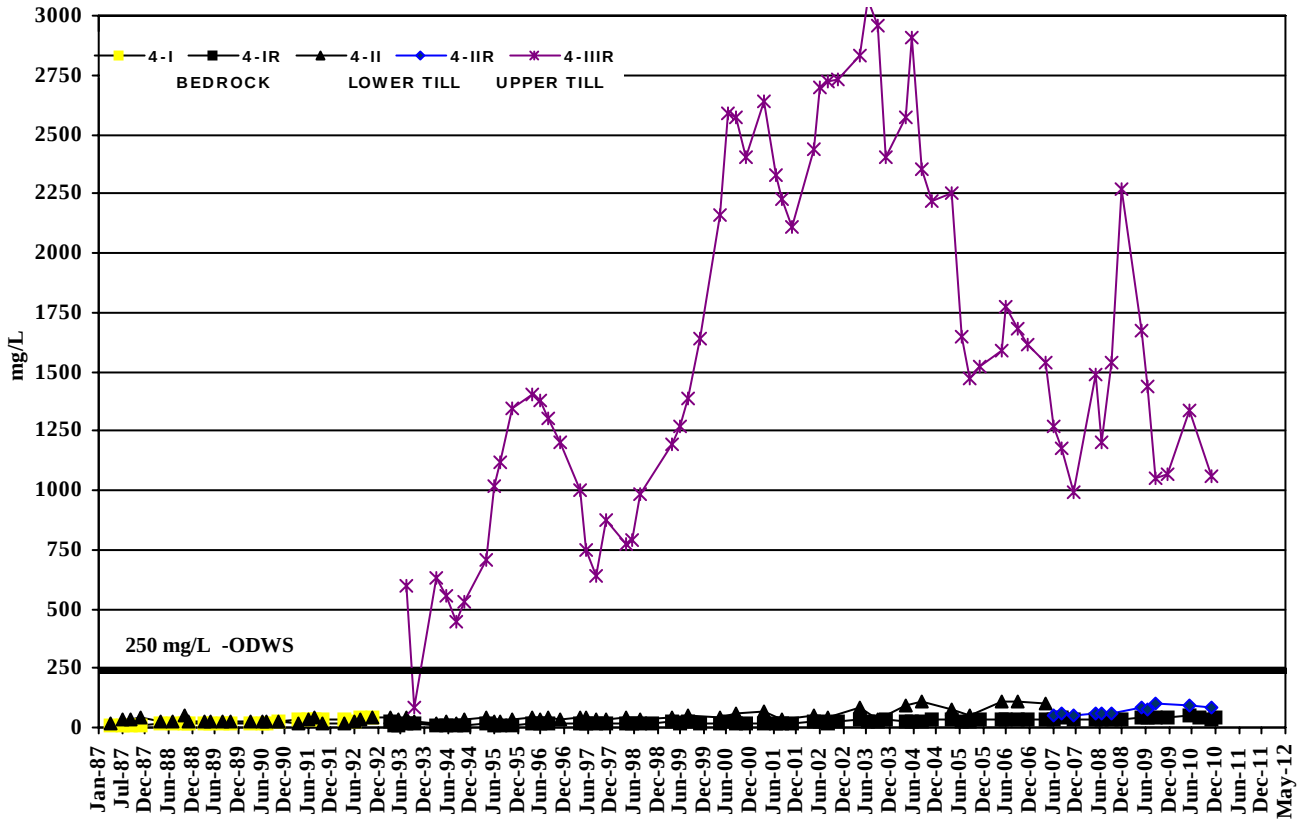
**Shallow Overburden South of Landfill**

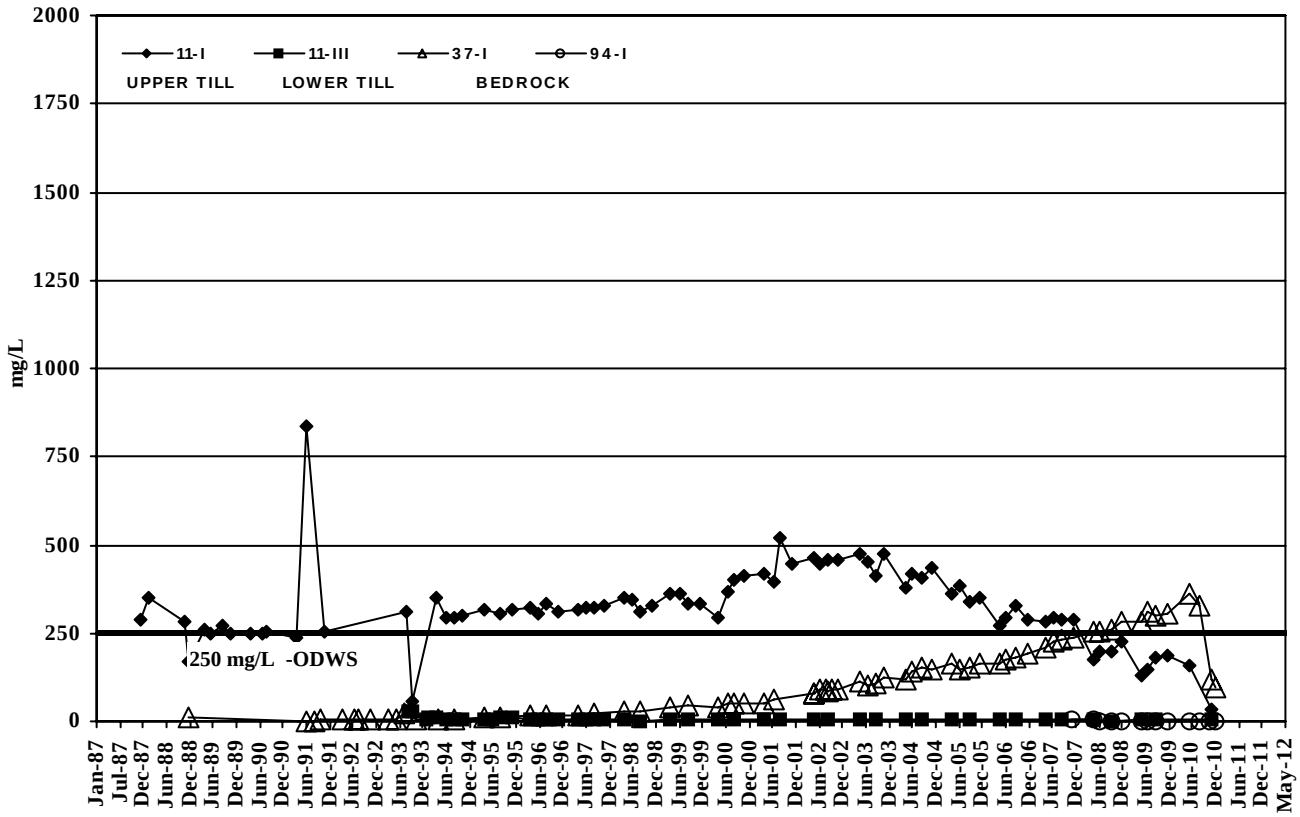
**FIGURE**

**C6**

**60191188**

12b C6 GW Chem Alk - West of Landfill

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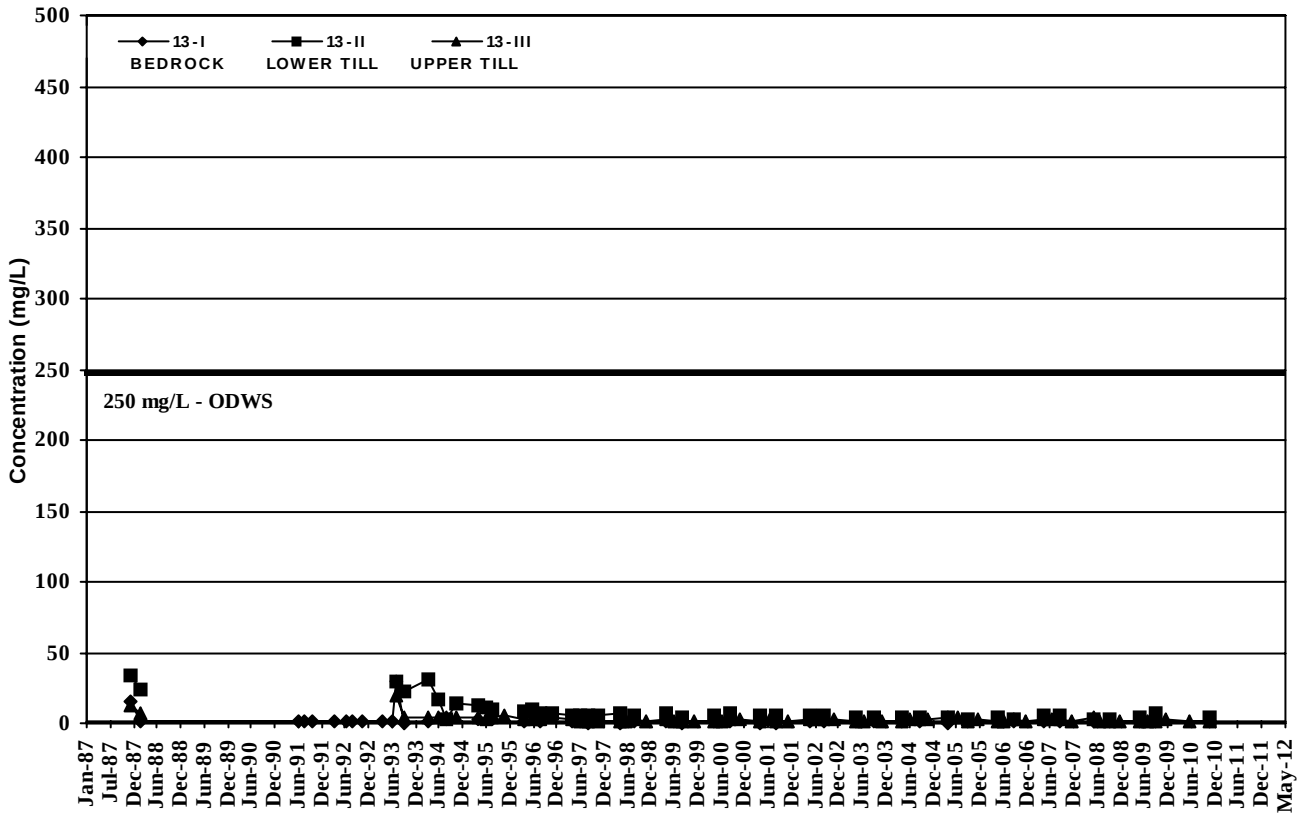
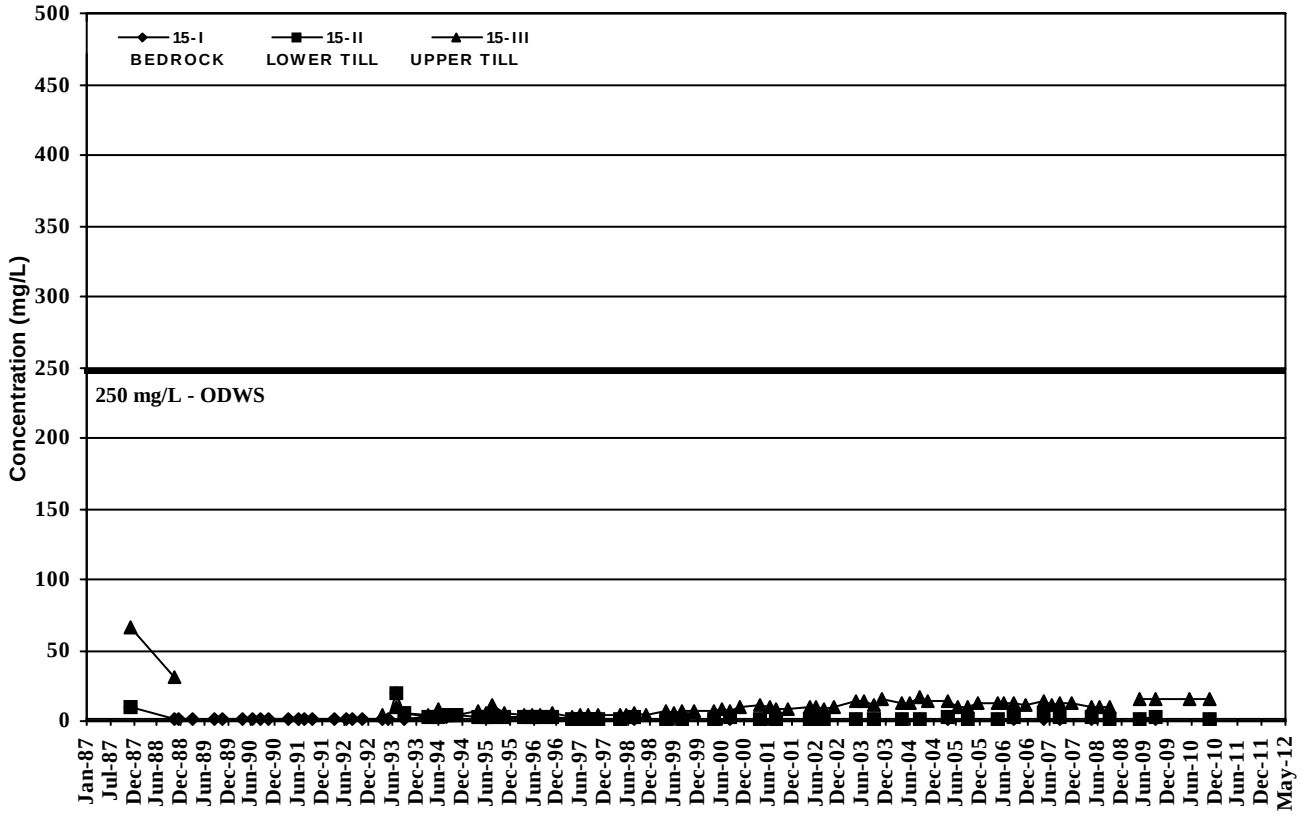
**Eastview Road Landfill Site**

# Ground Water Chemistry Trends
## Chloride Concentration Profile

**FIGURE**
**C7**

**60191188**
12b C7 GW Chem Cl Concentration 4 and 11

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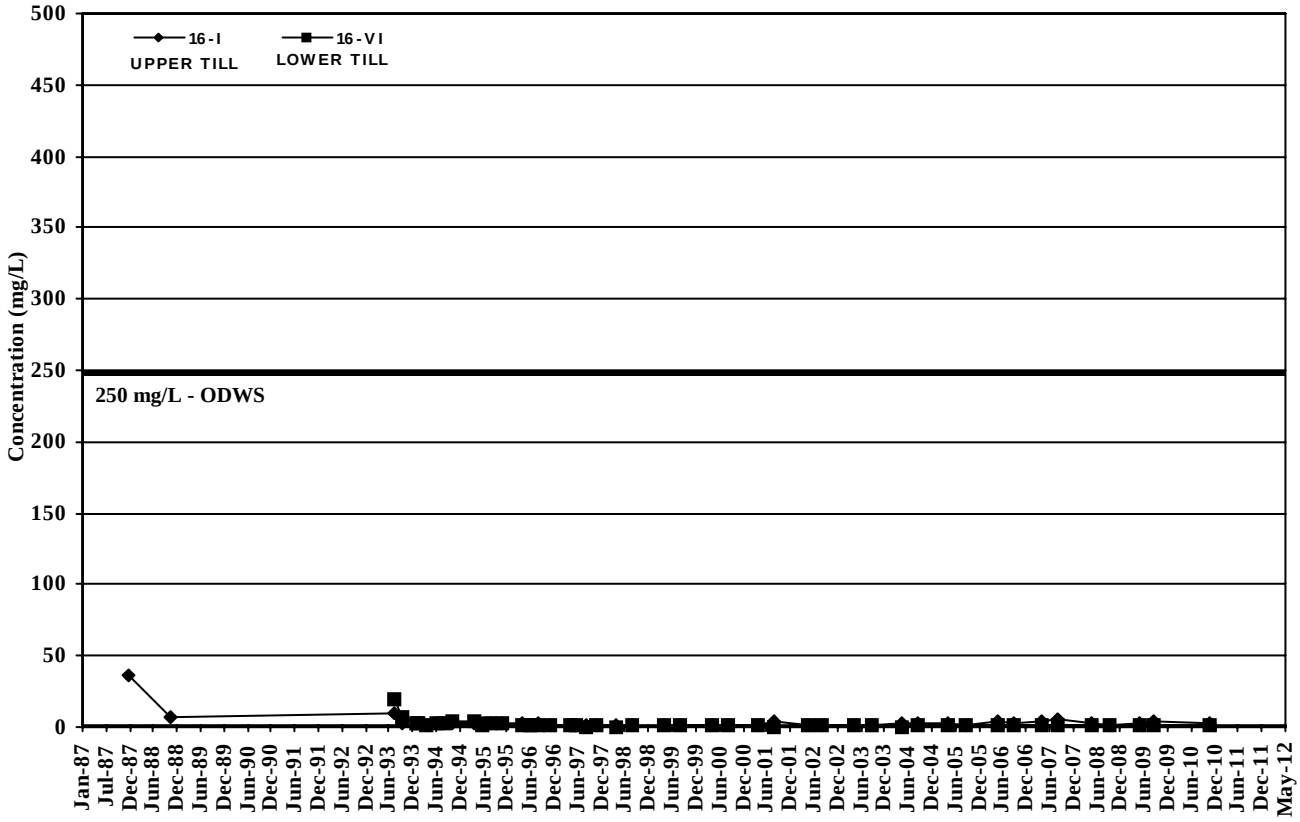
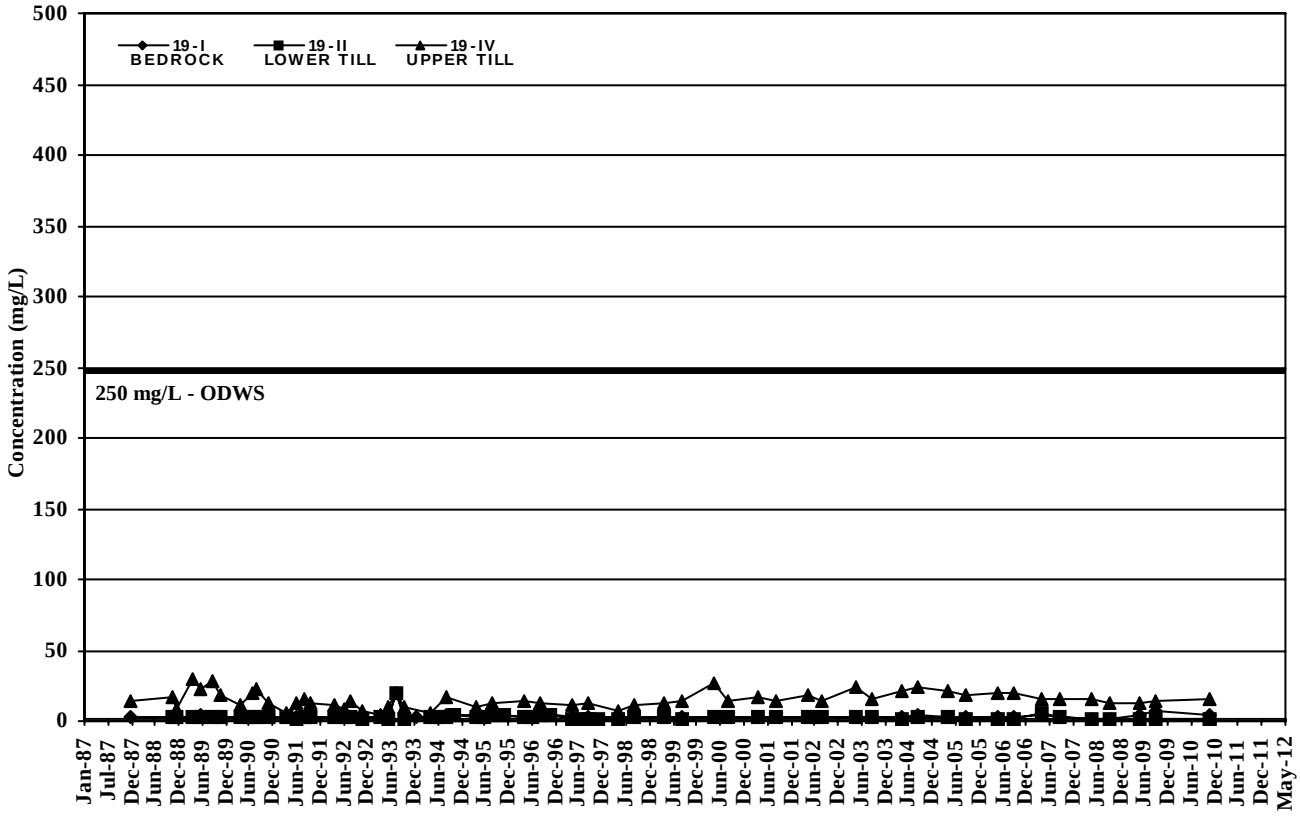
**Eastview Road Landfill Site**

# Ground Water Chemistry Trends
## Chloride Concentration Profile

**FIGURE**
**C8**

**60191188**
12b C8 GW Chem Cl Concentration 13 and 1

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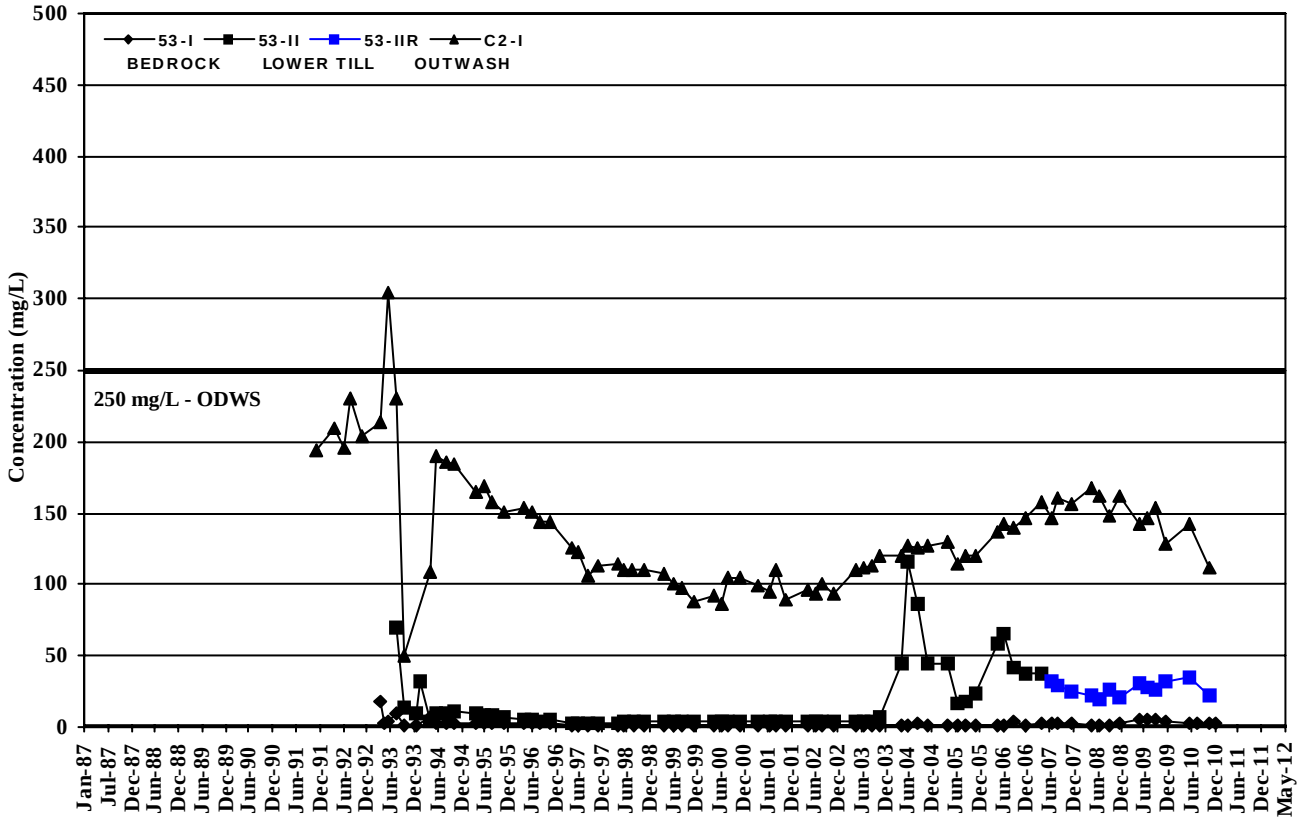
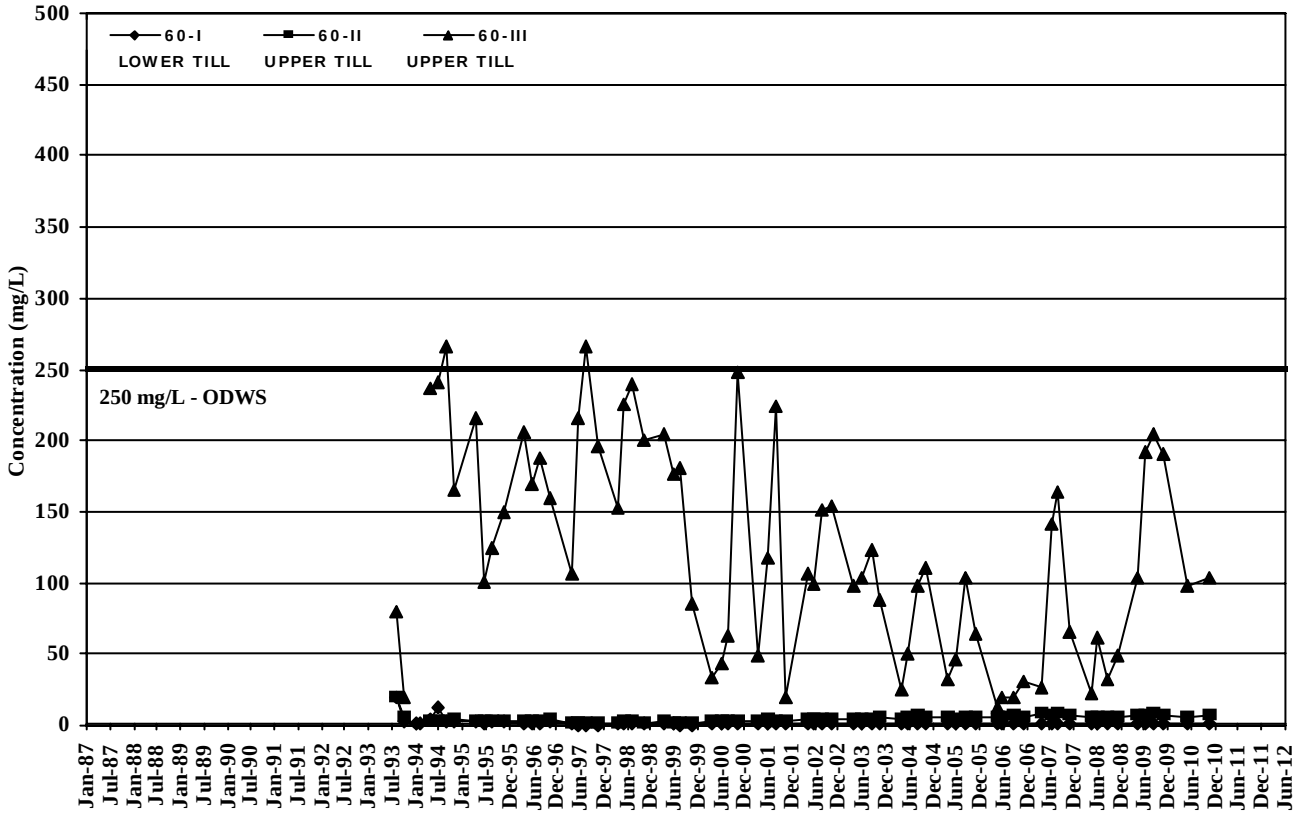
**Eastview Road Landfill Site**

# Ground Water Chemistry Trends
## Chloride Concentration Profile

**FIGURE**
**C9**

**60191188**
12b C9 GW Chem Cl Concentration 16 and 1

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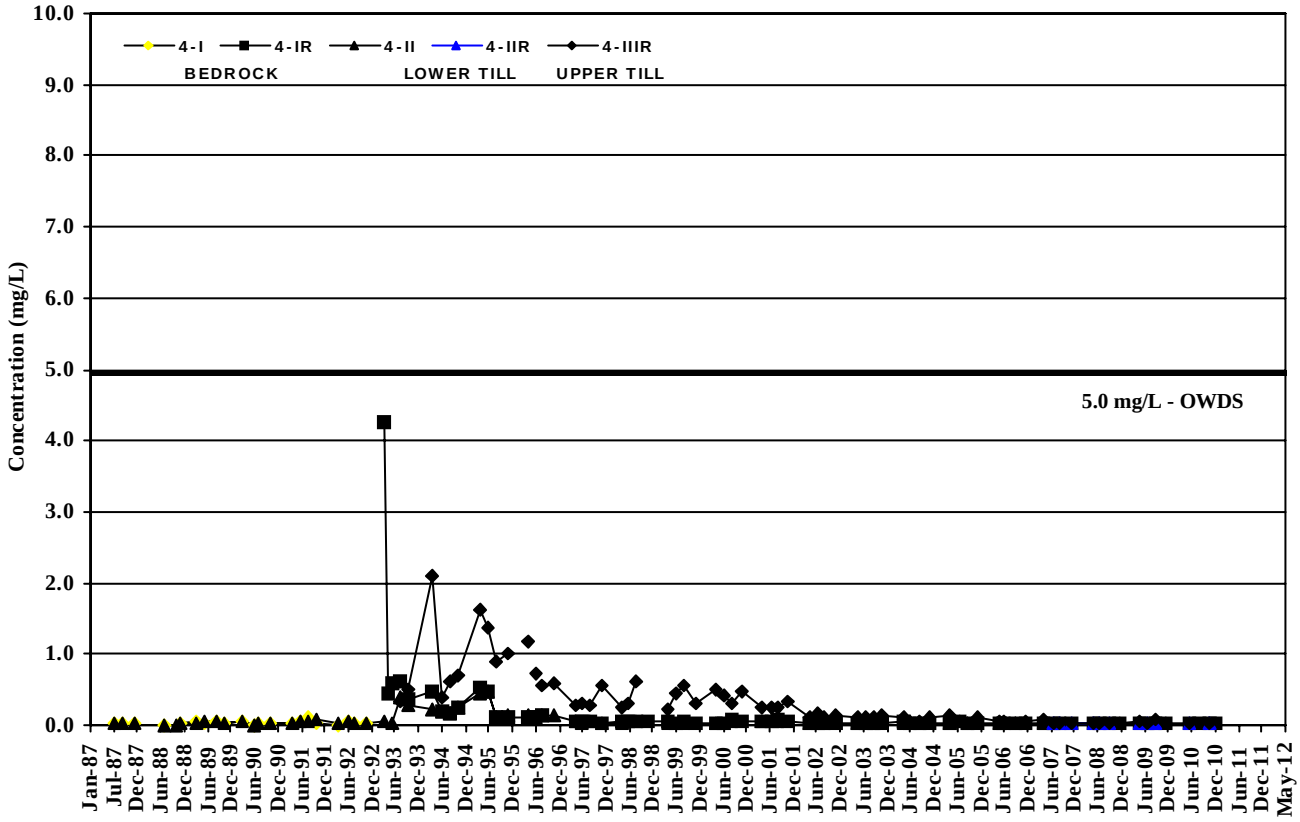
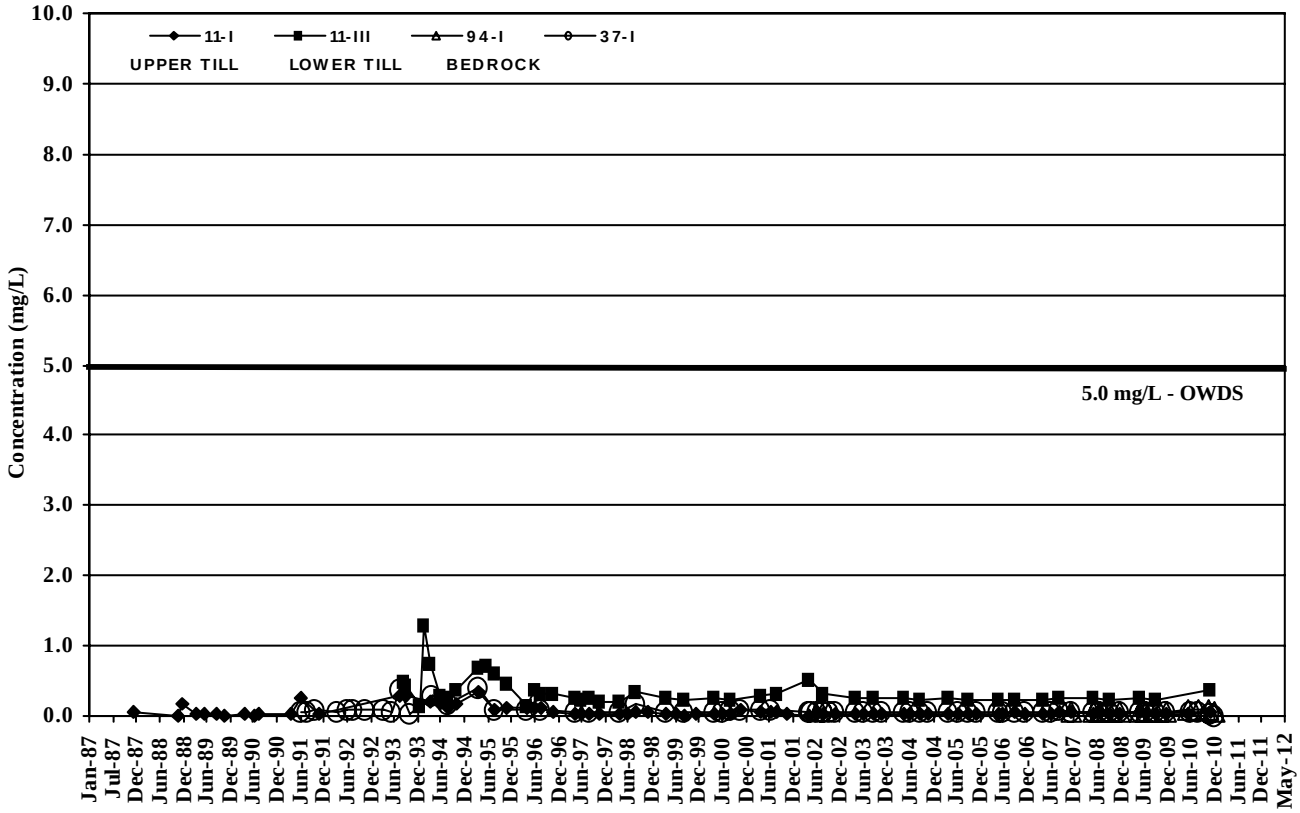
**Eastview Road Landfill Site**

# Ground Water Chemistry Trends
## Chloride Concentration Profile

**FIGURE**
**C10**

**60191188**
12c C10 GW Chem Cl Concentration 53 and

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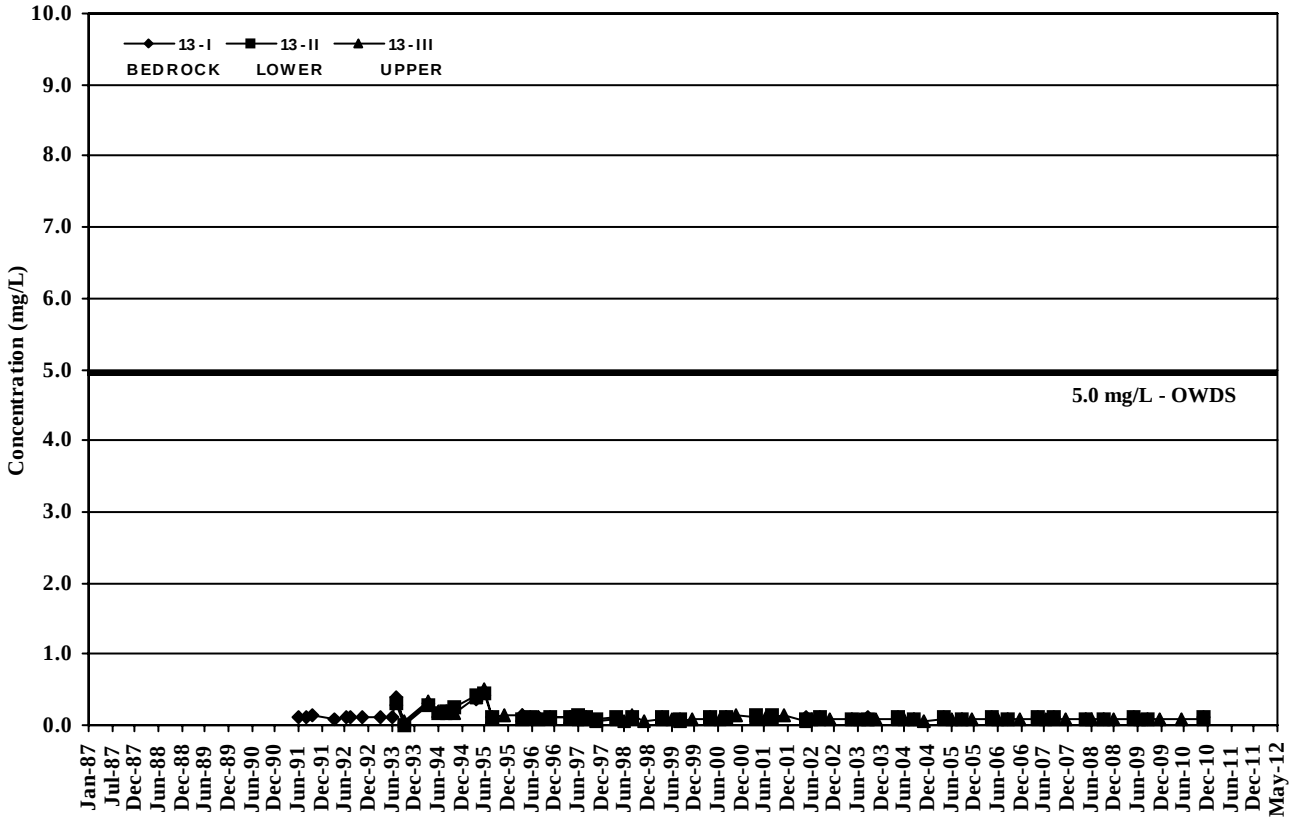
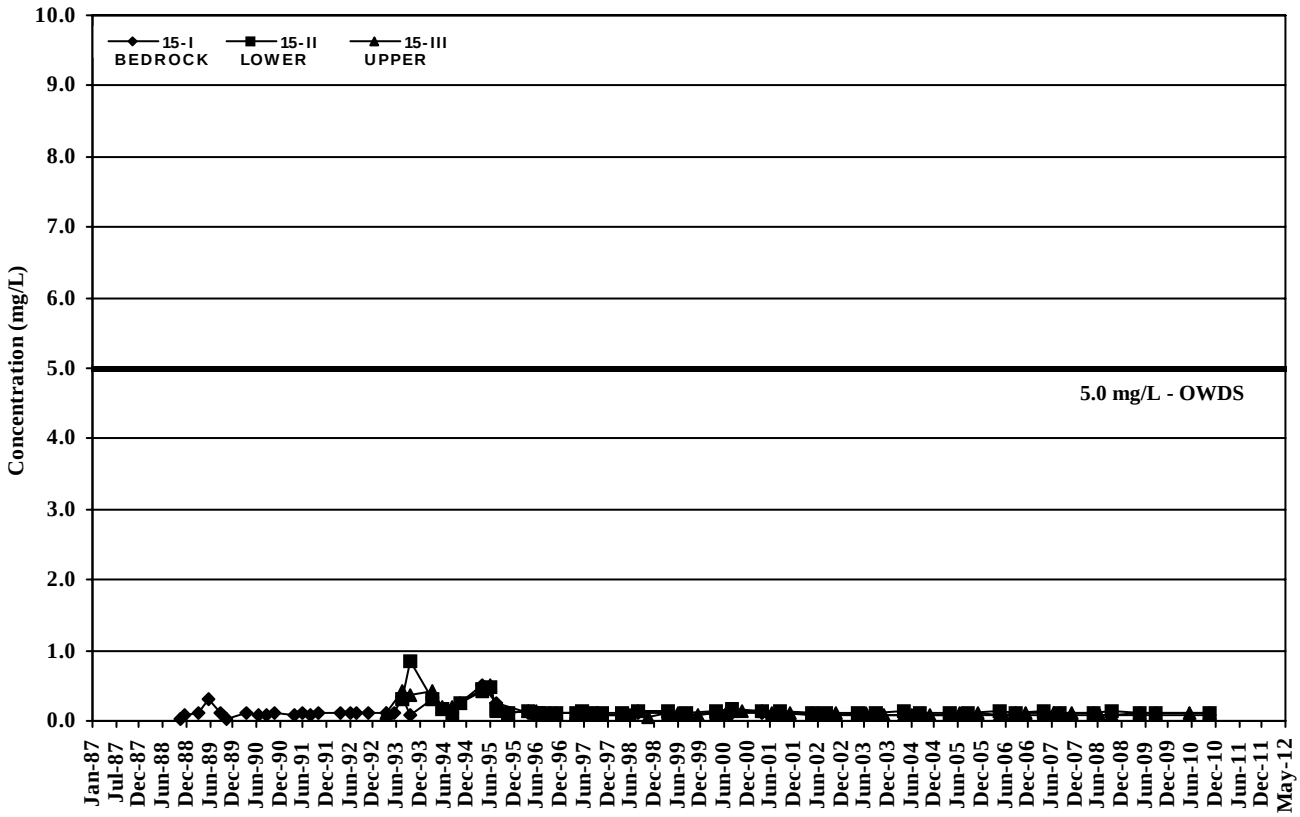
**Eastview Road Landfill Site**

**Ground Water Chemistry Trends**
**Boron Concentration Profile**

**FIGURE**
**C11**

**60191188**
12c C11 GW Chem B Concentration 4 and 11

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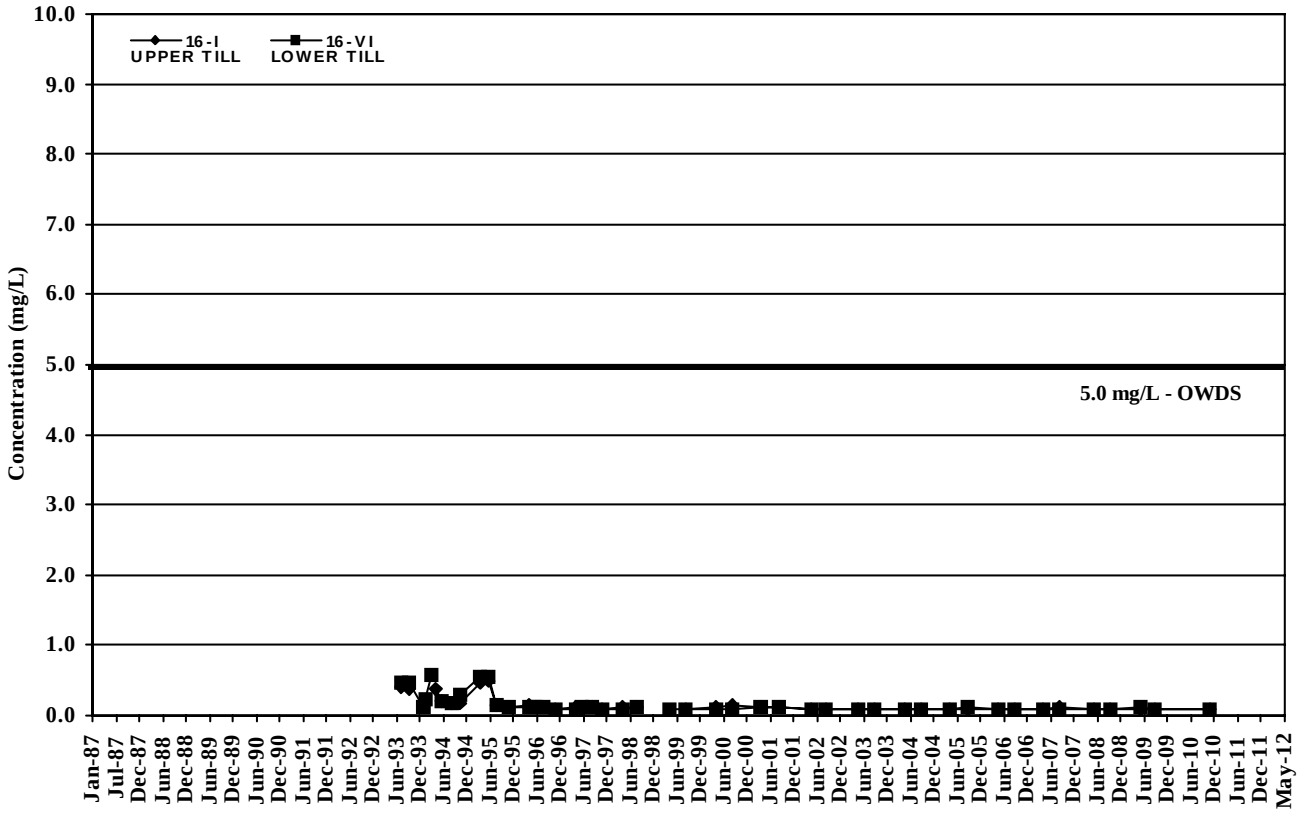
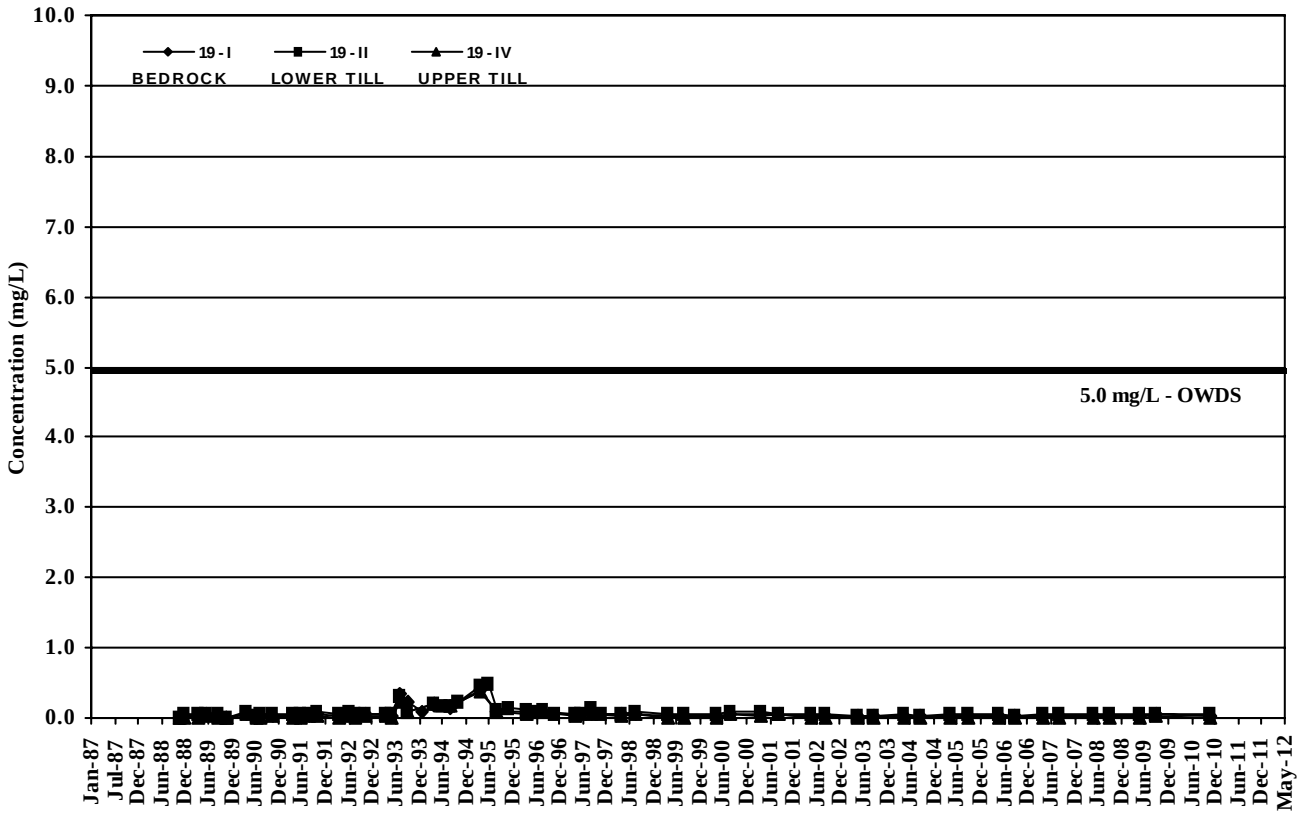
**Eastview Road Landfill Site**

# Ground Water Chemistry Trends
## Boron Concentration Profile

**FIGURE**
**C12**

**60191188**
12c C12 GW Chem B Concentration 13 and 1



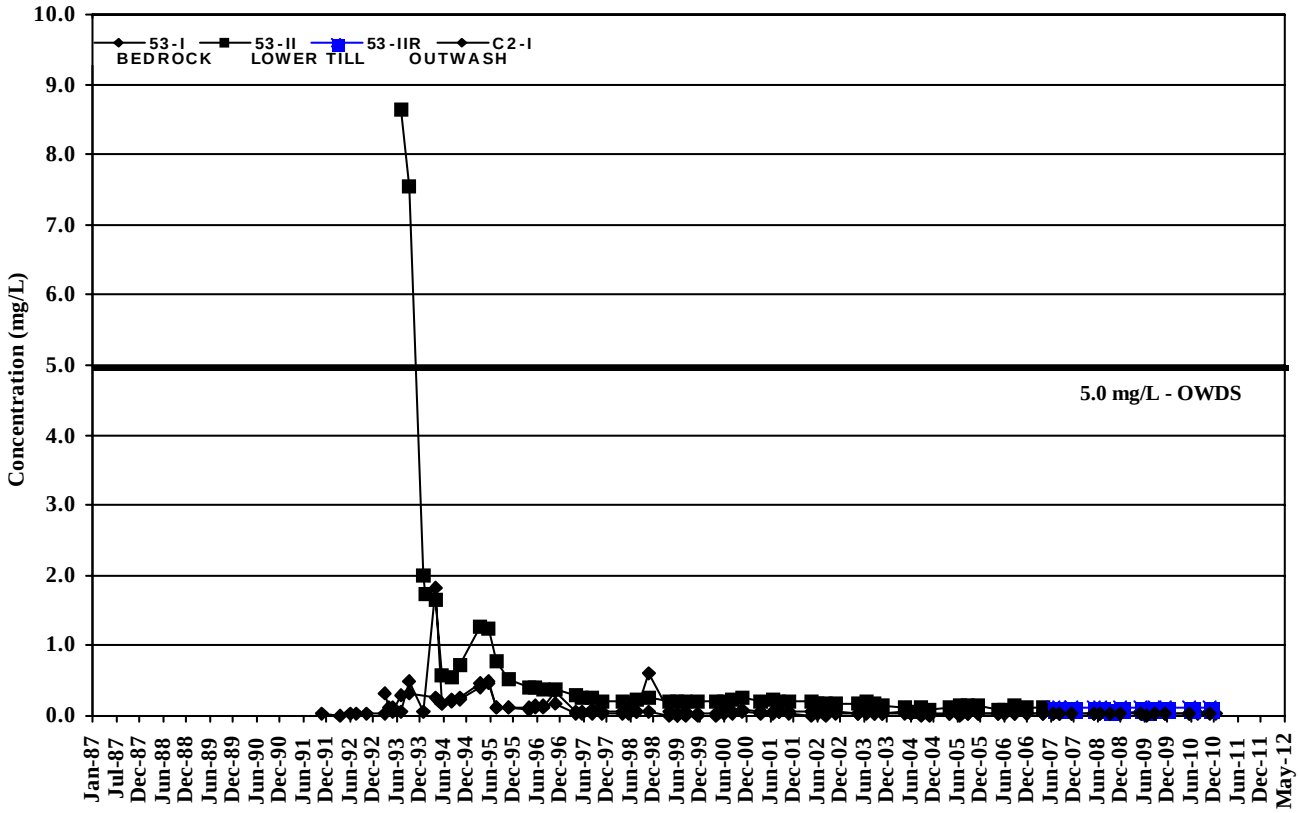

AECOM

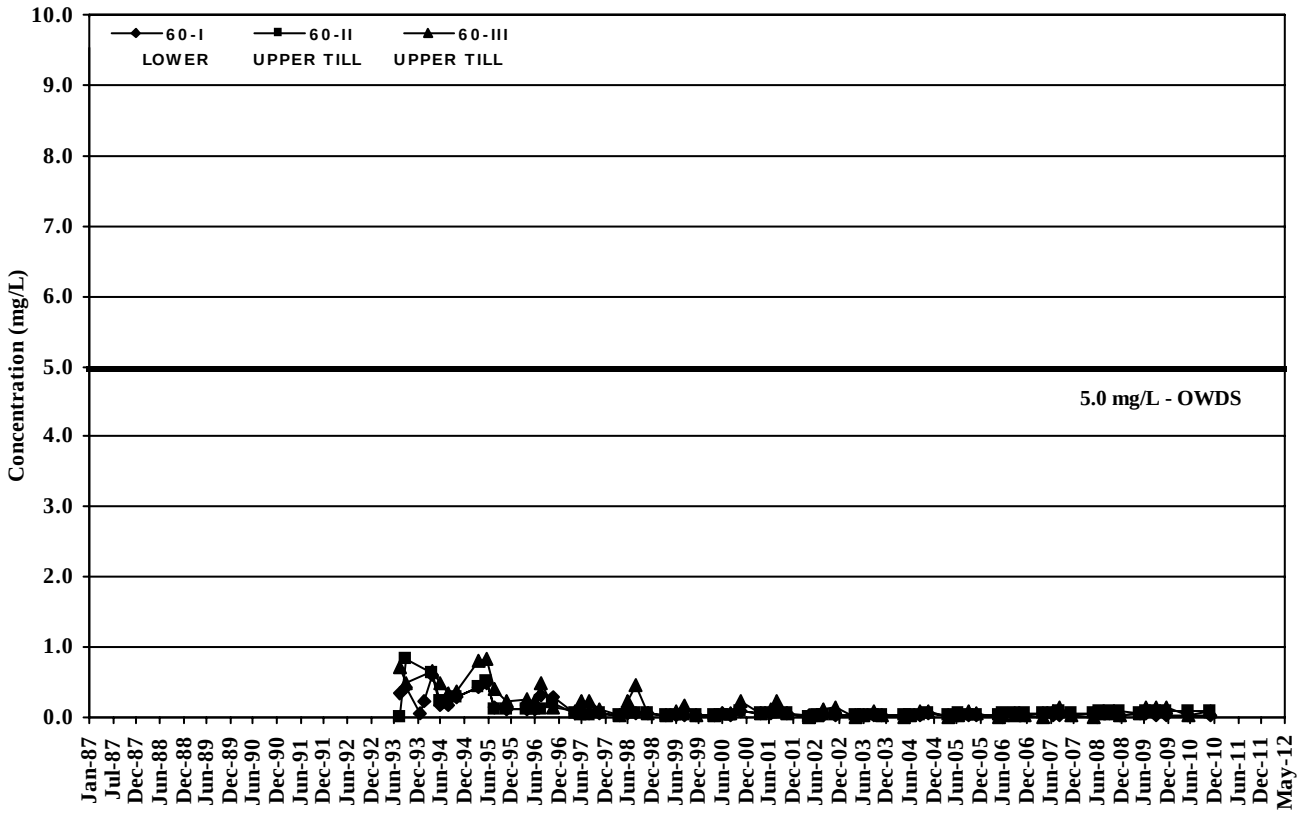
**Eastview Road Landfill Site**

**Ground Water Chemistry Trends**
**Boron Concentration Profile**

**FIGURE**
**C13**

**60191188**
12c C13 GW Chem B Concentration



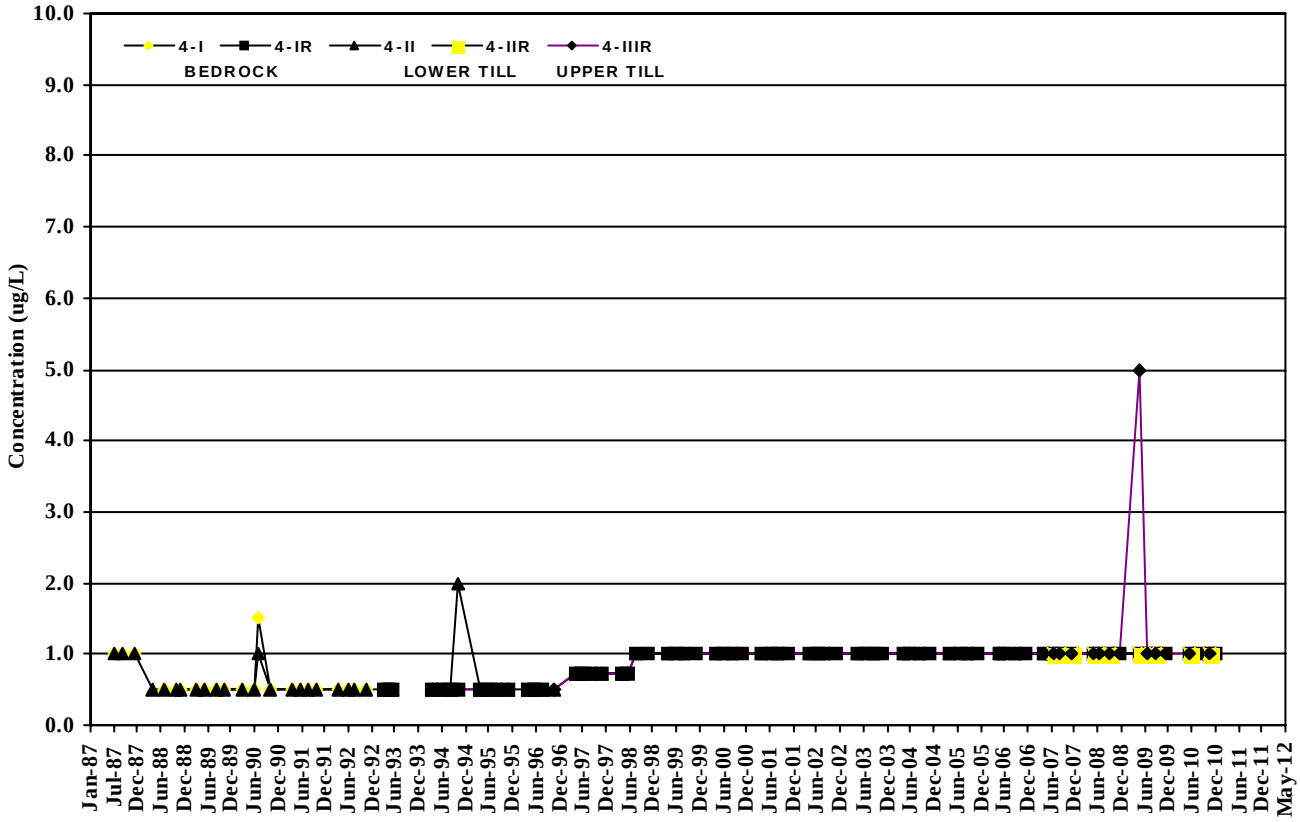

AECOM

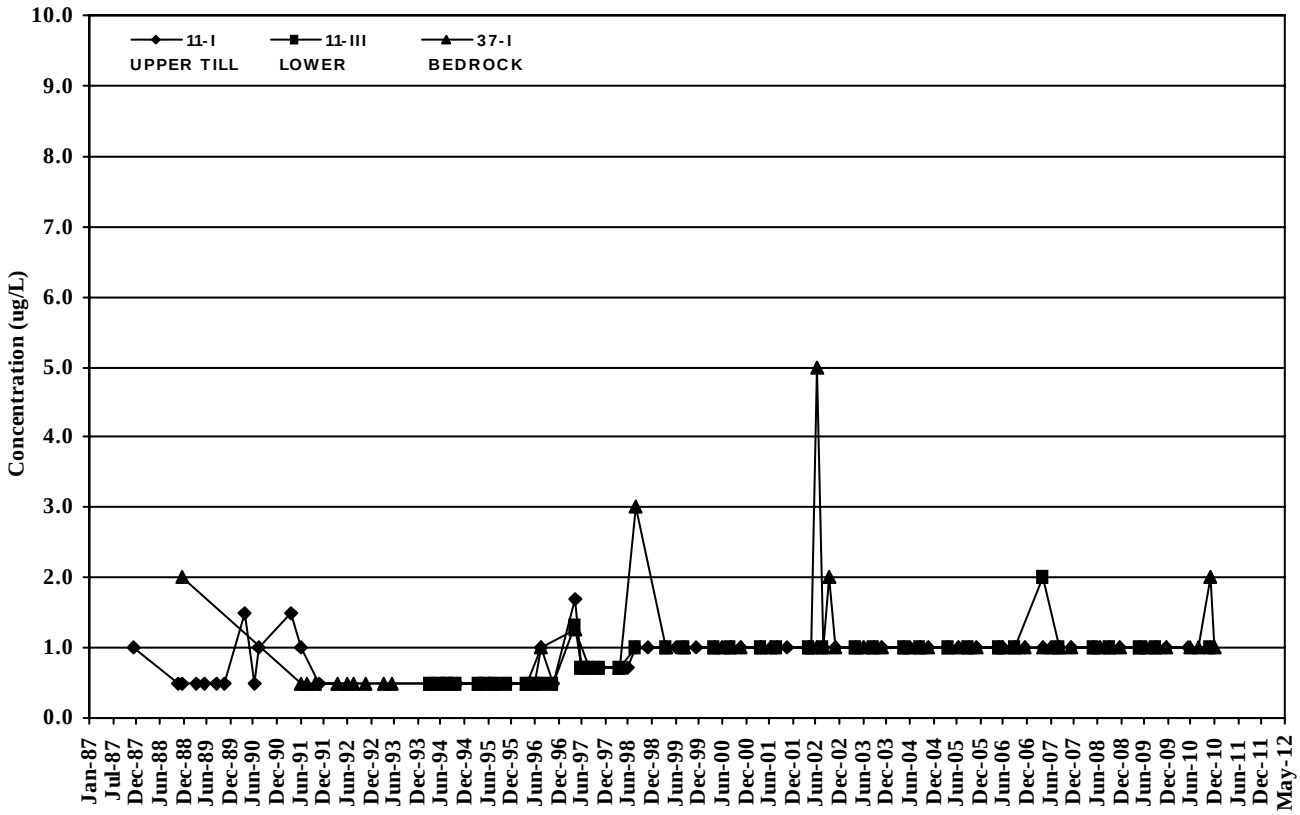
**Eastview Road Landfill Site**

**Ground Water Chemistry Trends**
**Boron Concentration Profile**

**FIGURE**
**C14**

**60191188**
12c C14 GW Chem B Concentration



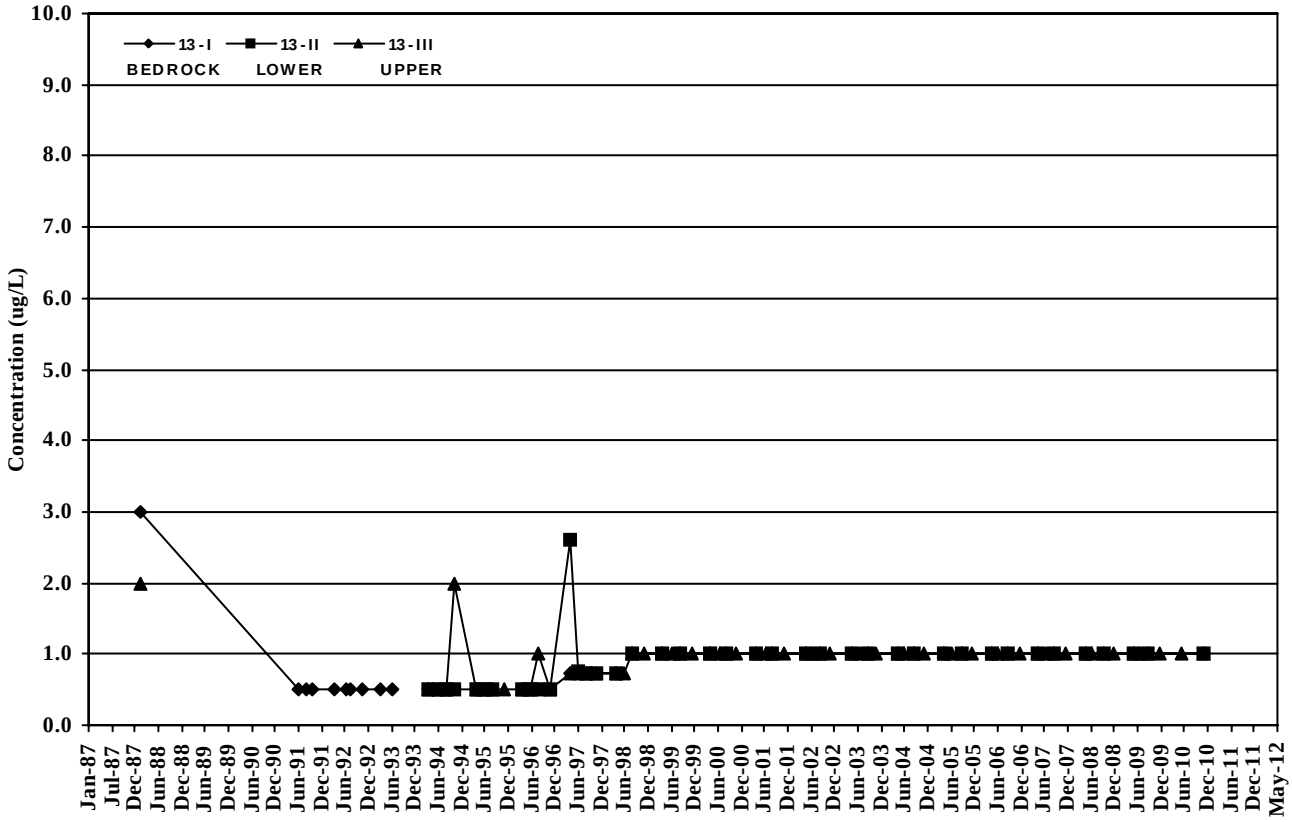

AECOM

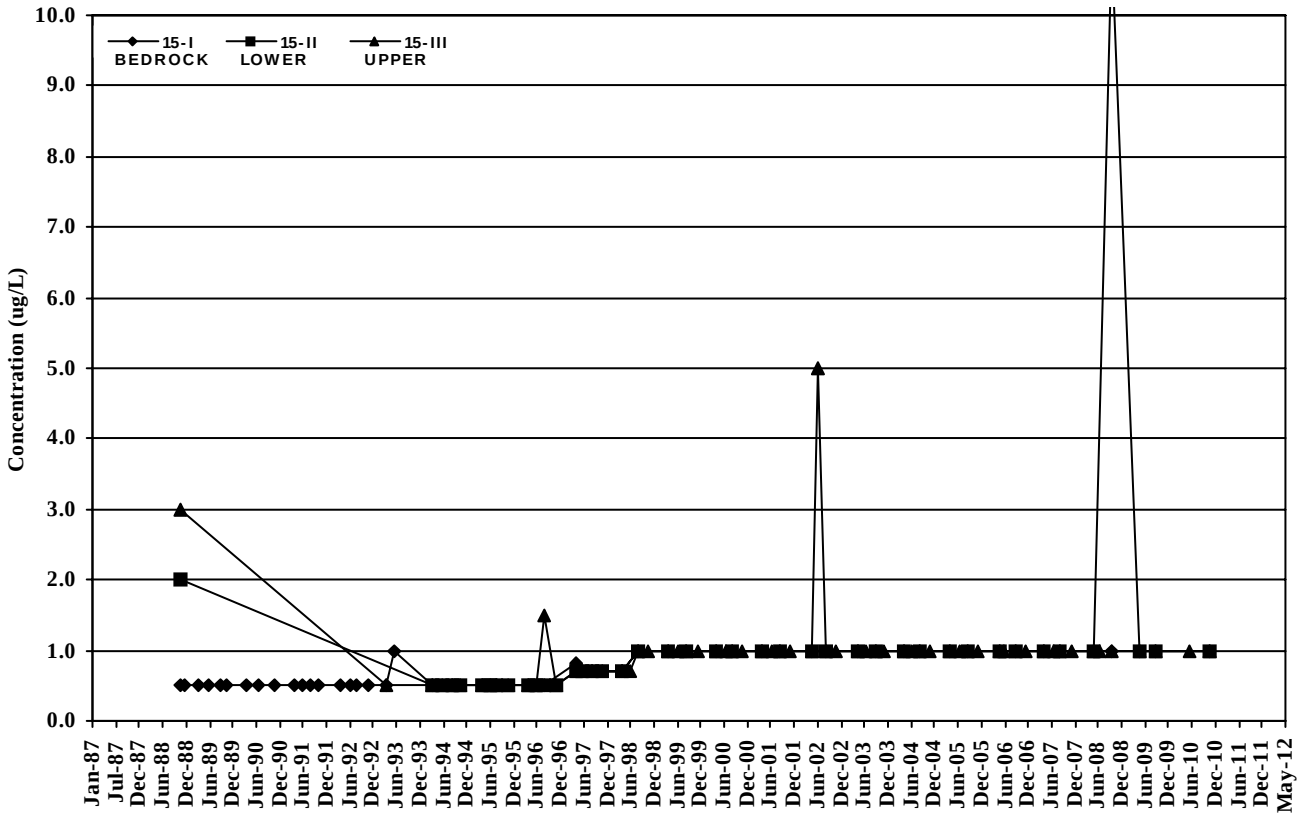
**Eastview Road Landfill Site**

**Ground Water Chemistry Trends**
**Phenol Concentration Profile**

**FIGURE**
**C15**

**60191188**
12c C15 GW Chem Phenol Concentration 4 a



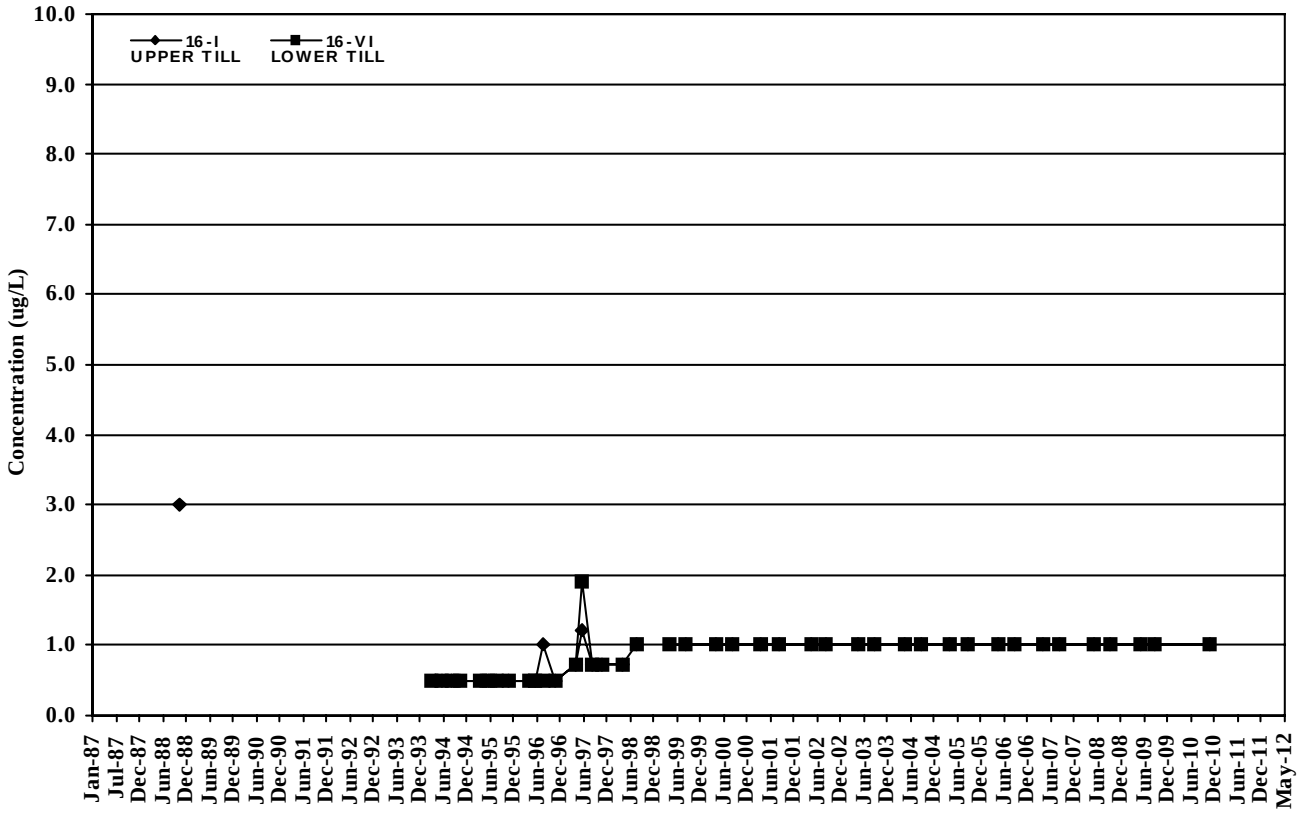

AECOM

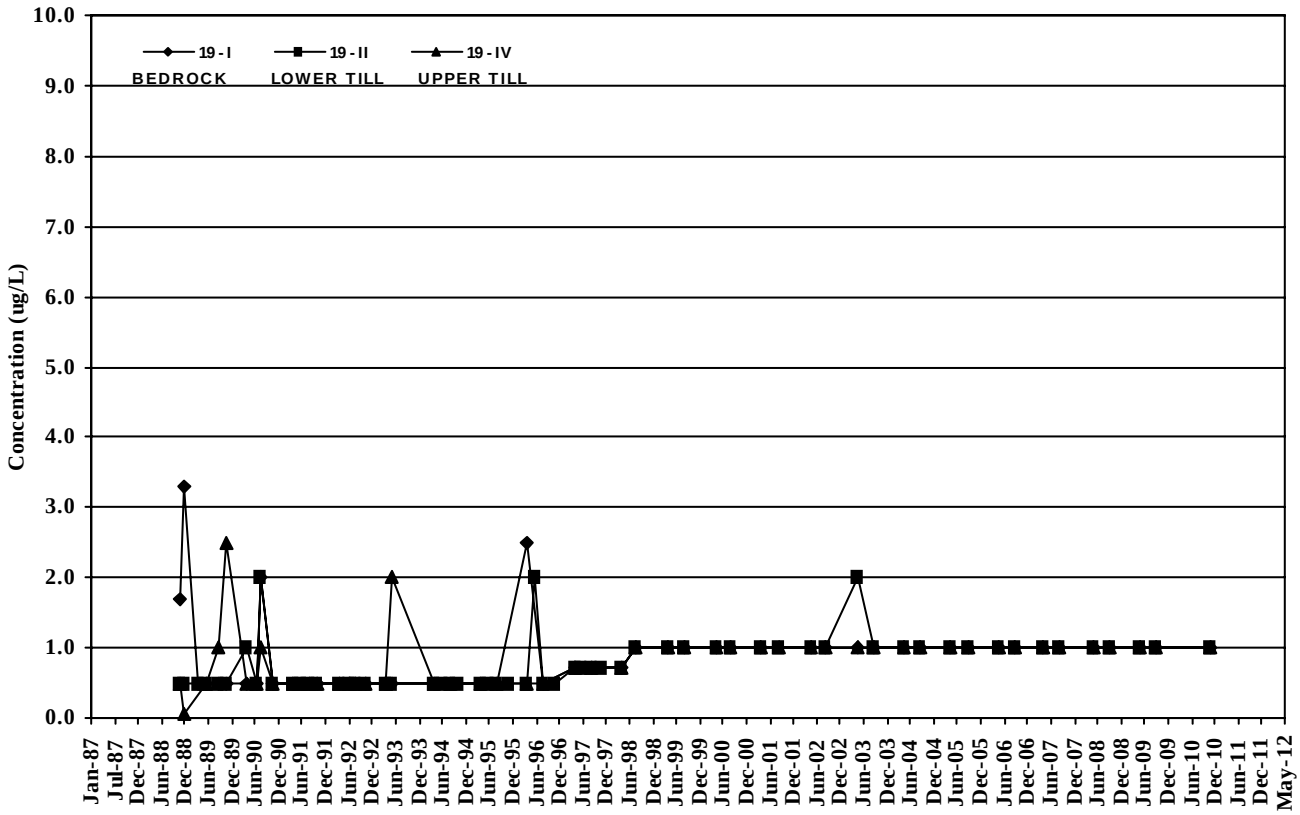
**Eastview Road Landfill Site**

# Ground Water Chemistry Trends
## Phenol Concentration Profile

**FIGURE**
**C16**

**60191188**
12c C16 GW Chem Phenol Concentration 13



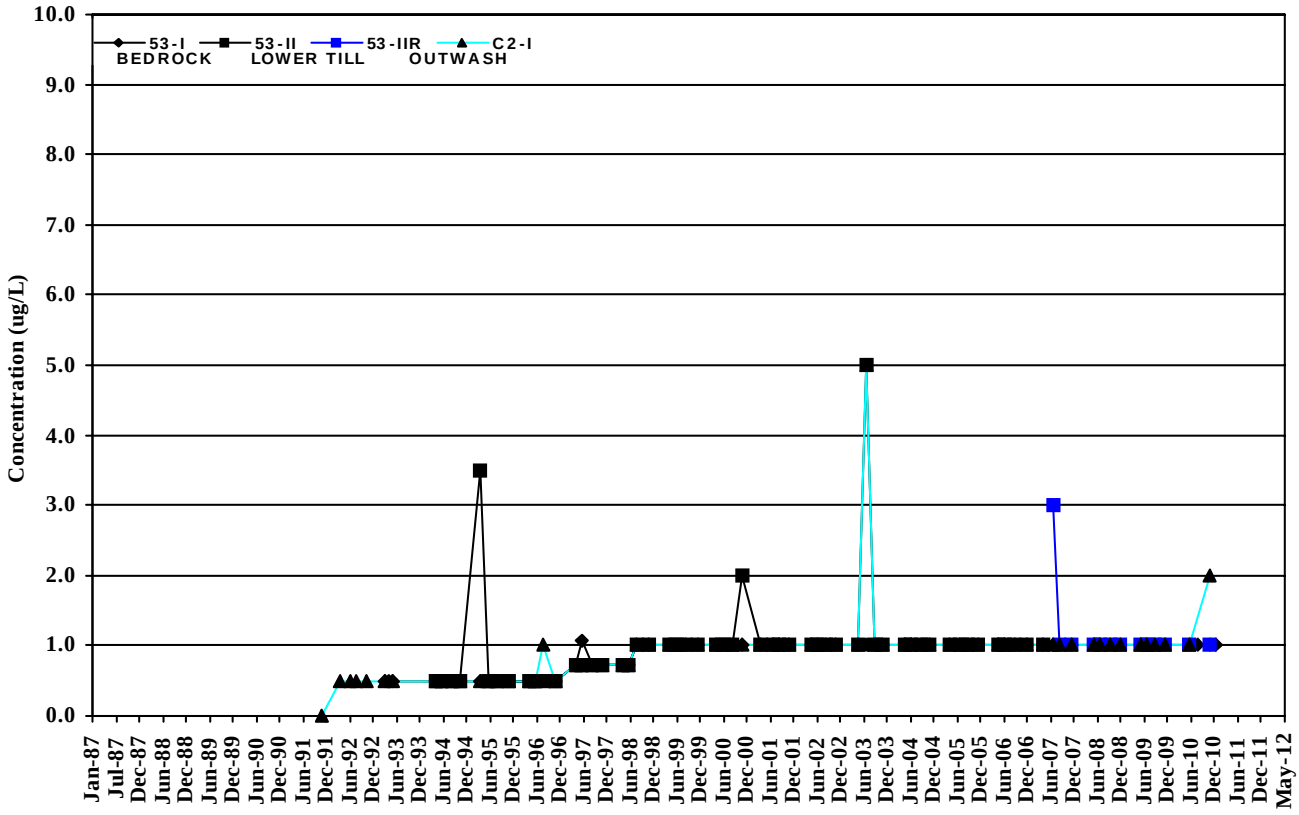

AECOM

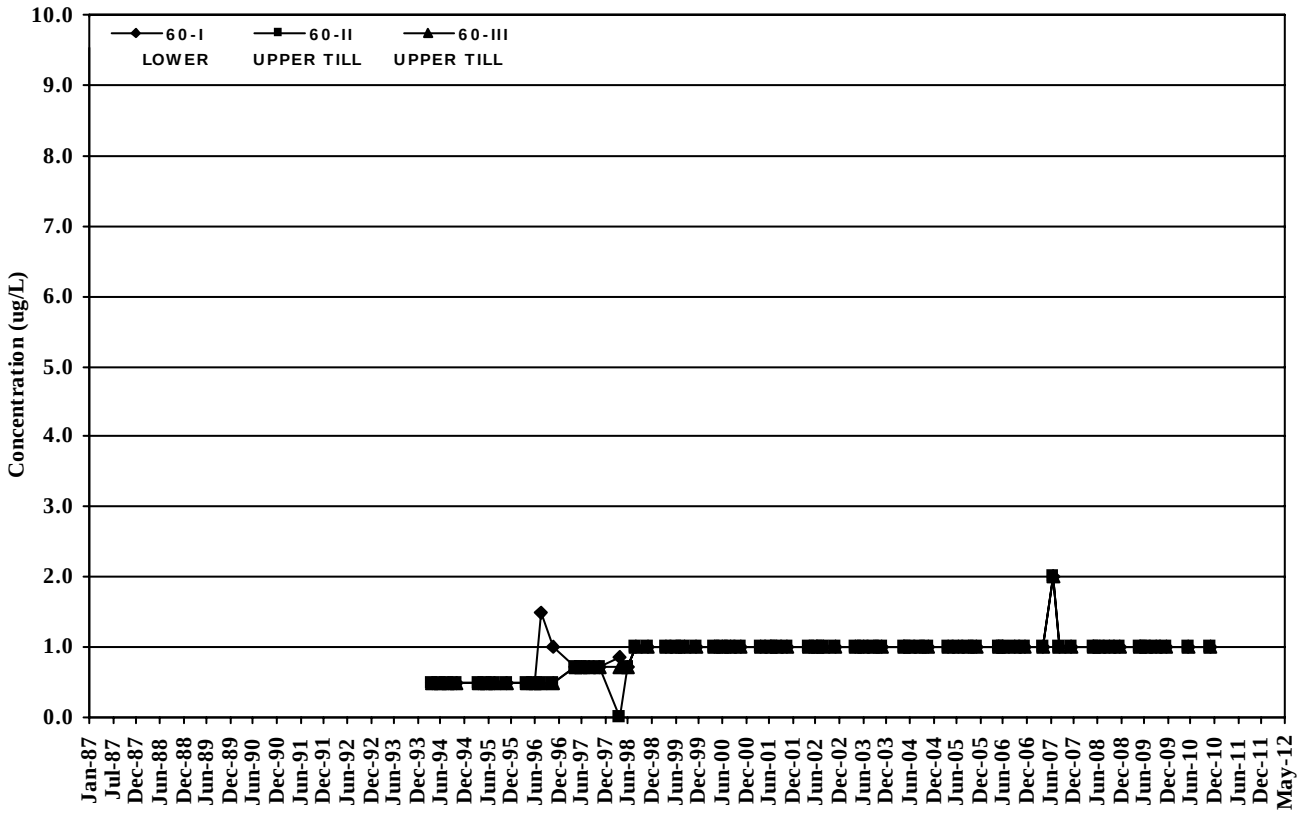
**Eastview Road Landfill Site**

# Ground Water Chemistry Trends
## Phenol Concentration Profile

**FIGURE**
**C17**

**60191188**
12c C17 GW Chem Phenol Concentr




AECOM

**Eastview Road Landfill Site**

# Ground Water Chemistry Trends
## Phenol Concentration Profile

**FIGURE**
**C18**

**60191188**
12c C18 GW Chem Phenol Concentr

# Appendix D

## Groundwater Quality Private Water Well Analyses

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P5**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 01-Feb-84 | 7.9 | 623 | 226 | 310 | 21 | | | | | 69 | < 0.1 | | < 0.1 | < 0.000 | | | |
| 01-Oct-84 | 7.7 | 626 | 227.2 | 231.8 | 27.6 | | | | | 78 | 0.2 | | < 0.05 | < 0.000 | | | |
| 01-Sep-85 | 7.51 | 637 | 227.4 | 323.3 | 29.8 | | | | | 82 | < 0.05 | | < 0.2 | < 0.001 | | | |
| 01-Jan-86 | 7.83 | 505 | 221.6 | 261 | 14.2 | | | | | 38 | < 0.1 | | < 0.05 | 0.000 | | | |
| 01-Nov-86 | 7.7 | 680 | 190 | 277 | 28 | | | | | 69 | 0.31 | | 0.19 | 0.024 | | | |
| 29-Jul-87 | 7.8 | 678 | 220 | | 36 | 15 | 72 | 38 | 1.6 | 85 | 0.06 | < 0.01 | < 0.01 | < 0.001 | 0.03 | 0.11 | 0.020 |
| 10-Dec-87 | 8.1 | 643 | 230 | | 36 | 17 | 74 | 43 | 1.6 | 86 | 0.19 | < 0.01 | < 0.01 | < 0.001 | 0.03 | 0.04 | 0.020 |
| 01-Aug-88 | 8.42 | 632 | 230 | | 29.3 | 15.4 | 69.1 | 38.6 | 1.3 | 79.9 | 0.17 | < 0.01 | < 0.01 | < 0.001 | 0.02 | 0.55 | 0.020 |
| 09-Feb-89 | 8.01 | 516 | 222 | 268 | 9.42 | | | | | 43.4 | 0.24 | | < 0.01 | 0.001 | | < 0.01 | |
| 01-Jun-89 | 7.49 | 519 | 229 | 269 | 16.7 | | | | | 36.6 | 0.21 | | < 0.02 | < 0.001 | | 1.39 | |
| 01-Nov-89 | 8.31 | 502 | 226 | 248.9 | 19.3 | | | | | 40.4 | 0.26 | | < 0.02 | 0.001 | | 1.17 | |
| 01-Jul-90 | 7.37 | 487 | 22 | 254.9 | 18.4 | | | | | 40 | 0.04 | | < 0.02 | < 0.001 | | 0.02 | |
| 01-Nov-90 | 8.29 | 487 | 219 | 259.2 | 19.1 | | | | | 35.1 | 0.28 | | < 0.02 | < 0.001 | | 0.23 | |
| 21-Jun-91 | 8.07 | 480 | 218 | 243.6 | 20.4 | | | | | 37 | 0.28 | | < 0.02 | < 0.001 | | 0.22 | |
| 11-Oct-91 | 8.13 | 476 | 220 | 249.6 | 18.9 | | | | | 38.7 | 0.29 | | < 0.02 | < 0.001 | | 0.42 | |
| 10-Nov-92 | 7.83 | 446 | 219 | 265.2 | 20.9 | 12.2 | 40.2 | 39.9 | 1 | < 42.5 | 0.31 | | < 0.02 | < 0.001 | 0.03 | 0.86 | 0.030 |
| 10-Jun-93 | 7.77 | 547 | 224 | 278.1 | 24.8 | 13.1 | 50.1 | 37.1 | 1 | 54.6 | 0.25 | | < 0.02 | < 0.001 | 0.03 | 1.15 | 0.020 |
| 05-Nov-93 | 7.73 | 504 | 236.25 | 287.17 | 31.5 | 13.06 | 55.32 | 36.31 | 1.17 | 58.53 | < 2 | | < 0.5 | | 0.33 | 1.6 | 0.040 |
| 05-Nov-93 | 7.91 | 498 | 226 | 278.4 | 25 | 15.1 | 49.4 | 37.5 | < 1 | 65.2 | 0.3 | | < 0.1 | < 0.001 | 0.04 | 1.25 | 0.020 |
| 29-Jun-94 | 7.75 | 529 | 221 | 291.1 | 21.5 | 13.5 | 49.3 | 40.7 | < 1 | 45.3 | 0.24 | | < 0.2 | < 0.001 | 0.03 | 0.55 | 0.020 |
| 29-Jun-94 | 8.2 | 489 | 228 | 294 | 22.6 | 14.3 | 49.7 | 41.5 | 1.27 | 49 | 0.31 | | 0.5 | < 0.001 | 0.34 | 0.81 | 0.010 |
| 27-Oct-94 | 8 | 505 | 223 | 295 | 23.3 | 17 | 51.6 | 40.6 | 1.5 | 52.7 | 0.28 | | < 0.5 | < 0.001 | 0.26 | 0.8 | 0.050 |
| 27-Oct-94 | 7.74 | 570 | 221 | 282.4 | 22.5 | 12.6 | 52.1 | 36.9 | < 1 | 49.6 | 0.21 | | < 0.1 | < 0.001 | 0.03 | 0.67 | 0.040 |
| 15-Jun-95 | 8.27 | 427 | 199 | 245 | 34.8 | 14.3 | 34.8 | 38.6 | 0.989 | 21.1 | 0.24 | < 0.06 | < 0.1 | < 0.001 | 0.53 | 0.859 | 0.026 |
| 15-Nov-95 | 8.23 | 652 | 208.2 | 349 | 29.8 | 15.8 | 72.5 | 41 | 1.32 | 87.3 | 0.233 | < 0.06 | < 0.1 | < 0.001 | 0.13 | 0.54 | 0.020 |
| 19-Jun-96 | 8.05 | 469 | 231 | 284 | 21.5 | 14.1 | 43.5 | 42.8 | 1.14 | 41.4 | 0.299 | < 0.06 | < 0.05 | < 0.001 | 0.11 | < 0.01 | 0.020 |
| 14-Nov-96 | 8.24 | 647 | 212 | 344 | 28.4 | 15.8 | 71.6 | 40.3 | 1.2 | 84.8 | 0.22 | < 0.06 | 0.07 | < 0.001 | 0.07 | 0.48 | 0.020 |
| 07-Jul-97 | 8.11 | 548 | 224 | 286 | 22.1 | 12 | 44.9 | 42.2 | 0.8 | 43 | 0.275 | < 0.14 | < 0.14 | 0.001 | 0.03 | 0.883 | 0.025 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P5**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. as mg/L CaCO3 | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 19-Nov-97 | 7.77 | 625 | 223 | 373 | 27.6 | 12.3 | 83.2 | 40.1 | 1.07 | 78 | 0.172 | < 0.014 | < 0.014 | < 0.001 | 0.04 | 0.5 | 0.022 |
| 24-Jun-98 | 7.78 | 570 | 228 | 265 | 22.6 | 13.5 | 47.9 | 35.4 | 1.11 | 55.1 | 0.236 | < 0.014 | < 0.014 | < 0.001 | 0.06 | 0.786 | 0.020 |
| 19-Nov-98 | 7.7 | 610 | 230 | 310 | 24 | 14 | 61 | 39 | < 1 | 61 | 0.28 | < 0.1 | < 0.1 | < 0.000 | < 0.05 | 2.4 | 0.020 |
| 18-Aug-99 | 8.1 | 563 | 232 | 273 | 21.3 | 13.1 | 41.5 | 41.1 | 1.1 | 38.4 | 0.25 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.48 | 0.022 |
| 18-Aug-99 | 8.08 | 554 | 224 | 274 | 21.4 | 13 | 41.7 | 41.3 | < 1 | 38.9 | 0.26 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.48 | 0.022 |
| 14-Dec-99 | 8.06 | 589 | 226 | 289 | 23 | 13.6 | 50.1 | 39.8 | < 1 | 50 | 0.25 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.47 | 0.020 |
| 14-Dec-99 | 8.07 | 589 | 226 | 282 | 21.7 | 13.9 | 48.4 | 39.2 | < 1 | 48 | 0.25 | < 0.2 | < 0.2 | < 0.010 | 0.03 | 0.46 | 0.019 |
| 19-Jul-00 | 8.1 | 534 | 232 | 300 | 24.2 | 14.1 | 56.5 | 38.6 | 1 | 56.6 | 0.21 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.45 | 0.019 |
| 10-Jul-01 | 7.89 | 589 | 244 | 314 | 23.4 | 15.2 | 65.3 | 36.6 | 2 | 84.7 | 0.15 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.3 | 0.017 |
| 10-Oct-01 | 8 | 519 | 240 | 298 | 22.3 | 14 | 49 | 42.5 | < 1 | 44 | 0.24 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.39 | 0.019 |
| 12-Jun-02 | 7.87 | 571 | 233 | 295 | 23.9 | 12.7 | 49.8 | 41.6 | < 1 | 46.5 | 0.23 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.49 | 0.018 |
| 04-Nov-02 | 8.12 | 540 | 228 | 296 | 22.2 | 12.5 | 48.7 | 42.4 | < 1 | 45.5 | 0.3 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.55 | 0.023 |
| 18-Jun-03 | 8.01 | 568 | 230 | 269.7 | 23 | 13.1 | 42.3 | 39.8 | < 1 | 42 | 0.24 | < 0.01 | < 0.05 | < 0.001 | 0.02 | 0.62 | 0.024 |
| 23-Oct-03 | 7.96 | 585 | 234 | 303.8 | 23.7 | 13.8 | 57.8 | 38.7 | 2 | 49.6 | | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.38 | 0.024 |
| 29-Jun-04 | 7.9 | 575 | 242 | 305.5 | 24.1 | 14.3 | 60.8 | 37.3 | 2 | 58.9 | 0.22 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.72 | 0.111 |
| 28-Oct-04 | 8.07 | 621 | 238 | 319 | 23.6 | 14.7 | 64.9 | 38 | 2 | 65.9 | 0.17 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.38 | 0.054 |
| 12-Jul-05 | 8.25 | 616 | 240 | 305 | 24 | 15.2 | 59.5 | 39.3 | < 1 | 56 | 0.22 | < 0.3 | < 0.2 | < 0.001 | 0.03 | 0.43 | 0.020 |
| 17-Nov-05 | 8.2 | 536 | 237 | 300 | 26 | 15 | 51.1 | 41.5 | 1 | 67 | 0.15 | < 0.01 | < 0.1 | < 0.001 | 0.03 | 0.61 | 0.020 |
| 27-Jun-06 | 8.2 | 569 | 244 | 290 | 24 | 14 | 44 | 43 | 1.1 | 48 | 0.3 | < 0.01 | < 0.1 | < 0.001 | 0.03 | 0.5 | 0.019 |
| 20-Nov-06 | 8.3 | 631 | 255 | 310 | 25 | 15 | 61 | 39 | 1.2 | 63 | 0.32 | < 0.01 | < 0.1 | < 0.001 | 0.03 | 0.4 | 0.019 |
| 22-Jun-07 | 8.1 | 638 | 248 | 330 | 25 | 15 | 72 | 36 | 1.4 | 67 | 0.24 | < 0.01 | < 0.1 | < 0.001 | 0.18 | 0.23 | 0.016 |
| 02-Nov-07 | 8.3 | 617 | 237 | 320 | 25 | 14 | 59 | 41 | 1.3 | 57 | 0.24 | < 0.01 | < 0.1 | < 0.001 | 0.31 | 0.39 | 0.019 |
| 24-Jun-08 | 8.3 | 624 | 239 | 260 | | 12 | 57 | 30 | 1.1 | | 0.11 | 0.02 | < 0.1 | < 0.001 | 0.03 | 0.22 | 0.015 |
| 12-Dec-08 | 8.2 | 655 | 239 | < 1 | 23 | 150 | < 0.2 | < 0.05 | 0.45 | 55 | < 0.05 | < 0.01 | < 0.1 | < 0.001 | 0.03 | < 0.1 | < 0.002 |
| 14-Jul-09 | 8.1 | 656 | 234 | < 1 | 25 | 150 | < 0.2 | 0.059 | 0.46 | 60 | < 0.05 | < 0.01 | < 0.1 | < 0.001 | 0.03 | < 0.1 | < 0.002 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P6**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 01-Apr-84 | 7.7 | 496 | 219 | 240 | 10 | | | | | 31 | < 0.1 | | < 0.1 | | | | |
| 01-Sep-85 | 7.5 | 468 | 218 | 249.7 | 14.2 | | | | | 37 | < 0.05 | | < 0.25 | < 0.001 | | | |
| 01-Nov-86 | 7.5 | 520 | 220 | 251 | 12 | | | | | 31 | 0.22 | | 0.29 | < 0.000 | | | |
| 29-Jul-87 | 8 | 513 | 223 | | 18 | 11 | 57 | 28 | 1.7 | 43 | 0.06 | < 0.01 | < 0.01 | < 0.001 | 0.03 | 0.04 | < 0.010 |
| 10-Dec-87 | 8 | 501 | 221 | | 16 | 12 | 58 | 32 | 1.6 | 39 | 0.14 | < 0.01 | < 0.01 | < 0.001 | 0.04 | 0.04 | < 0.010 |
| 01-Aug-88 | 8.41 | 530 | 219 | | 16.5 | 11.8 | 59.4 | 31.4 | 1.6 | 50.5 | 1.6 | < 0.01 | < 0.01 | < 0.001 | 0.01 | 0.08 | < 0.010 |
| 01-Feb-89 | 7.92 | 496 | 226 | 268 | 14.5 | | | | | 37 | 0.18 | | < 0.01 | 0.001 | | < 0.01 | |
| 01-Jun-89 | 7.38 | 518 | 223 | 262.3 | 13.9 | | | | | 39.1 | 0.1 | | < 0.02 | < 0.001 | | 0.01 | |
| 01-Nov-89 | 8.18 | 493 | 222 | 238.7 | 16.7 | | | | | 41.4 | 0.18 | | < 0.02 | 0.001 | | 0.07 | |
| 01-Jul-90 | 7.48 | 472 | 218 | 235.5 | 16.8 | | | | | 38.1 | 0.19 | | < 0.02 | < 0.001 | | 0.01 | |
| 01-Nov-90 | 8.05 | 484 | 214 | 254.7 | 16.3 | | | | | 37.9 | 0.19 | | < 0.02 | < 0.001 | | 0.03 | |
| 21-Jun-91 | 8.02 | 477 | 213 | 234.1 | 17.1 | | | | | 39.6 | 0.17 | | < 0.02 | < 0.001 | | 0.05 | |
| 11-Oct-91 | 7.8 | 476 | 215 | 244.4 | 16.2 | | | | | 43 | 0.17 | | < 0.02 | < 0.001 | | 0.02 | |
| 11-Jun-92 | 7.49 | 503 | 217 | 277 | 15.5 | 11.1 | 56.3 | 28.9 | 1 | 41.5 | < 0.18 | | < 0.02 | < 0.001 | 0.02 | 0.04 | < 0.010 |
| 10-Nov-92 | 7.82 | 506 | 212 | 270.1 | 16.2 | 11.3 | 60.6 | 28.7 | 2 | < 41.3 | 0.17 | | < 0.02 | < 0.001 | 0.03 | 0.04 | < 0.010 |
| 10-Jun-93 | 7.63 | 504 | 213 | 245.6 | 17.9 | 10.8 | 52.6 | 27.6 | 2 | 42.1 | 0.17 | | < 0.02 | < 0.001 | 0.04 | 0.1 | < 0.010 |
| 05-Nov-93 | 7.66 | 430 | 223.75 | 233.5 | 19.06 | 10.73 | 52.5 | 24.94 | 1.45 | 36.39 | < 2 | | < 0.5 | | 0.35 | 0.39 | 0.020 |
| 05-Nov-93 | 7.87 | 466 | 214 | 234.6 | 16.1 | 11.8 | 51.1 | 25.9 | < 1 | 40 | 0.17 | | < 0.1 | < 0.001 | 0.04 | 0.16 | < 0.010 |
| 29-Jun-94 | 8.3 | 445 | 215 | 167 | 17.4 | 12.3 | 58.1 | 29.6 | 1.4 | 43.7 | < 0.01 | | < 0.5 | < 0.001 | 0.32 | 0.22 | < 0.010 |
| 27-Oct-94 | 7.9 | 469 | 213 | 260 | 18.8 | 14.8 | 54.3 | 30.2 | 1.66 | 45.1 | 0.24 | | < 0.5 | < 0.001 | 0.24 | 0.11 | 0.030 |
| 15-Jun-95 | 8.2 | 444 | 212 | 269 | 16.8 | 13.05 | 58.43 | 30.02 | 1.52 | 42.7 | 0.17 | | 0.5 | 0.001 | 0.46 | < 0.01 | < 0.010 |
| 15-Nov-95 | 8.39 | 462 | 210.8 | 284 | 18 | 12.1 | 62.2 | 31.3 | 1.45 | 44.7 | 0.201 | < 0.1 | < 0.1 | < 0.001 | 0.10 | 0.02 | < 0.010 |
| 19-Jun-96 | 7.9 | 456 | 224 | 273 | 17.6 | 12.9 | 59.6 | 30.2 | 1.57 | 44.8 | 0.178 | < 0.06 | 0.1 | < 0.001 | 0.09 | < 0.01 | < 0.010 |
| 14-Nov-96 | 8.32 | 532 | 200 | 280 | 17.9 | 12.2 | 61.3 | 30.8 | 1.5 | 45.5 | 0.17 | < 0.06 | 0.07 | < 0.001 | 0.06 | < 0.01 | < 0.010 |
| 18-Jun-97 | 8.18 | 517 | 219 | 251 | 16.5 | 10.9 | 54.5 | 28 | 1.12 | 49.3 | 0.185 | < 0.014 | < 0.014 | < 0.001 | 0.06 | 0.046 | 0.014 |
| 19-Nov-97 | 7.83 | 530 | 214 | 315 | 17 | 10.6 | 71.7 | 33 | 1.17 | 47.9 | 0.116 | < 0.014 | 0.038 | < 0.001 | 0.04 | 0.056 | 0.006 |
| 24-Jun-98 | 7.82 | 528 | 219 | 235 | 16.1 | 11.4 | 50.9 | 26.3 | 1.39 | 46.6 | 0.237 | < 0.014 | < 0.014 | < 0.001 | 0.06 | 0.076 | 0.008 |
| 19-Nov-98 | 7.7 | 550 | 230 | 270 | 16 | 11 | 59 | 29 | < 1 | 45 | 0.31 | < 0.1 | < 0.1 | < 0.000 | < 0.05 | < 0.05 | < 0.010 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P6**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 18-Aug-99 | 7.92 | 547 | 217 | 265 | 19.9 | 11.8 | 56.7 | 30.1 | < 1 | 50.4 | 0.17 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.08 | 0.008 |
| 14-Dec-99 | 7.91 | 538 | 215 | 256 | 15.7 | 11.9 | 54.1 | 29.3 | < 1 | 42.5 | 0.14 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.13 | 0.007 |
| 19-Jul-00 | 8.03 | 494 | 216 | 273 | 16.6 | 12 | 58.4 | 30.9 | 1 | 52.9 | 0.19 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.12 | 0.009 |
| 08-Jan-01 | 7.88 | 511 | 235 | 273 | 17.7 | 11.7 | 58.8 | 30.6 | 1 | 49.6 | 0.18 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.06 | 0.007 |
| 10-Jul-01 | 7.75 | 351 | 214 | 200 | 3.8 | 13.5 | 35.2 | 27.3 | 2 | 28.5 | < 0.03 | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.05 | 0.005 |
| 06-Nov-01 | 7.92 | 530 | 238 | 282 | 17.2 | 10.5 | 50.5 | 26.9 | 1.2 | 47.2 | 0.16 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.03 | 0.006 |
| 12-Jun-02 | 7.74 | 535 | 219 | 279 | 17.8 | 11.2 | 59.8 | 31.4 | 2 | 45.5 | 0.15 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.08 | 0.007 |
| 04-Nov-02 | 7.98 | 505 | 219 | 255 | 16.1 | 11.8 | 54.3 | 29 | 1.3 | 45.6 | 0.12 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.12 | 0.007 |
| 18-Jun-03 | 7.87 | 543 | 220 | 257.2 | 17 | 12 | 54.3 | 29.4 | 1 | 51 | 0.11 | < 0.01 | < 0.05 | < 0.001 | 0.02 | 0.13 | 0.006 |
| 23-Oct-03 | 7.72 | 560 | 221 | 280.4 | 19.5 | 11.9 | 61.1 | 30.9 | 2 | 54.4 | | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.27 | 0.025 |
| 28-Oct-04 | 8.03 | 541 | 216 | 271.9 | 16.3 | 12.5 | 58.5 | 30.5 | 2 | 49.3 | 0.1 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.2 | 0.023 |
| 17-Nov-05 | 8.18 | 499 | 226 | 260 | 18 | 11.9 | 56.5 | 29.3 | 1 | 34 | 0.15 | < 0.01 | < 0.1 | < 0.001 | 0.03 | 0.09 | < 0.010 |
| 27-Jun-06 | 8.2 | 537 | 239 | 260 | 18 | 12 | 56 | 30 | 1.3 | 48 | 0.2 | < 0.01 | < 0.1 | < 0.001 | 0.03 | < 0.05 | 0.005 |
| 22-Jun-07 | 8.3 | 551 | 231 | 290 | 18 | 14 | 61 | 33 | 1.5 | 47 | 0.25 | < 0.01 | < 0.1 | < 0.001 | 0.18 | < 0.05 | 0.006 |
| 02-Nov-07 | 8.2 | 553 | 224 | 270 | 17 | 12 | 6 | 29 | 1.4 | 47 | 0.19 | < 0.01 | < 0.1 | < 0.001 | 0.31 | < 0.1 | 0.050 |
| 24-Jun-08 | 8.1 | 545 | 218 | 230 | | 11 | 51 | 26 | 1.2 | | 0.1 | < 0.01 | < 0.1 | 0.002 | 0.03 | < 0.1 | 0.005 |
| 12-Dec-08 | 8 | 549 | 224 | 270 | 15 | 13 | 57 | 30 | 1.4 | 42 | 0.19 | < 0.01 | < 0.1 | < 0.001 | 0.03 | < 0.1 | 0.005 |
| 14-Jul-09 | 7.8 | 548 | 220 | 250 | 17 | 12 | 54 | 29 | 1.4 | 46 | 0.16 | < 0.01 | < 0.1 | < 0.001 | 0.03 | < 0.1 | 0.004 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P7**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 01-Feb-84 | 7.9 | 453 | 218 | 228 | 2.2 | | | | | 19 | | | < 0.1 | < 0.000 | | | |
| 01-Oct-84 | 7.87 | 438 | 220.4 | 215.4 | 4.6 | | | | | 18 | 0.3 | | < 0.05 | < 0.001 | | | |
| 01-Sep-85 | 7.65 | 423 | 221 | 218.6 | 3.8 | | | | | 17 | < 0.05 | | < 0.3 | < 0.001 | | | |
| 01-Jan-86 | 7.77 | 437 | 221.2 | 225 | 3.8 | | | | | 18.5 | < 0.2 | | < 0.05 | < 0.000 | | | |
| 01-Nov-86 | 7.7 | 460 | 221 | 223 | 5 | | | | | 15 | 0.31 | | 0.06 | 0.000 | | | |
| 29-Jul-87 | 8.2 | 451 | 227 | | 7 | 12 | 39 | 33 | 0.9 | 19 | 0.06 | < 0.01 | < 0.01 | < 0.001 | 0.04 | 0.16 | < 0.010 |
| 01-Feb-89 | 7.97 | 465 | 234 | 240 | 9.49 | | | | | 20.2 | 0.35 | | < 0.01 | 0.001 | | < 0.01 | |
| 01-Jun-89 | 7.45 | 476 | 236 | 238.4 | 9.17 | | | | | 31.8 | 0.25 | | 0.08 | < 0.001 | | 0.12 | |
| 01-Nov-89 | 8.29 | 456 | 231 | 218.8 | 10.6 | | | | | 22.9 | 0.33 | | < 0.02 | 0.001 | | 0.21 | |
| 01-Jul-90 | 7.64 | 434 | 227 | 227.2 | 9.48 | | | | | 19.1 | 0.32 | | < 0.02 | < 0.001 | | 0.18 | |
| 01-Nov-90 | 8.14 | 440 | 223 | 236.5 | 8.4 | | | | | 18.6 | 0.32 | | < 0.02 | < 0.001 | | 0.09 | |
| 21-Jun-91 | 7.99 | 435 | 220 | 216.9 | 10.8 | | | | | 20.5 | 0.31 | | < 0.02 | < 0.001 | | 0.04 | |
| 11-Oct-91 | 8.02 | 432 | 223 | 220.8 | 9.75 | | | | | 20.5 | 0.34 | | < 0.02 | < 0.001 | | 0.05 | |
| 11-Jun-92 | 7.77 | 452 | 223 | 249.3 | 8.21 | 11.3 | 41.2 | 32.5 | < 1 | 19.3 | < 0.14 | | < 0.02 | < 0.001 | 0.03 | 0.16 | 0.010 |
| 10-Nov-92 | 7.77 | 476 | 222 | 247.7 | 13.2 | 12 | 43.2 | 33.8 | 1 | < 21.3 | 0.32 | | < 0.02 | < 0.001 | 0.03 | 0.38 | < 0.010 |
| 10-Jun-93 | 7.74 | 470 | 228 | 233.9 | 11.5 | 10.5 | 41.1 | 31.8 | 1 | 20 | 0.28 | | < 0.02 | < 0.001 | 0.03 | 0.38 | < 0.010 |
| 05-Nov-93 | 7.8 | 405 | 237.5 | 195.76 | 37.51 | 14.06 | 35.45 | 26.13 | 0.92 | 17.54 | < 2 | | < 0.5 | | 0.14 | 0.55 | 0.010 |
| 05-Nov-93 | 7.92 | 445 | 226 | 244.9 | 13.6 | 13.1 | 44.6 | 32.3 | < 1 | 20.5 | 0.33 | | < 0.1 | < 0.001 | 0.04 | 0.47 | < 0.010 |
| 29-Jun-94 | 8.2 | 435 | 228 | 259 | 18.3 | 13.3 | 43 | 37 | 1.15 | 23.1 | < 0.01 | | 0.8 | < 0.001 | 0.36 | 0.13 | < 0.010 |
| 27-Oct-94 | 8 | 443 | 225 | 237 | 17 | 15.7 | 36.3 | 35.6 | 1.31 | 21.5 | 0.4 | | < 0.5 | < 0.001 | 0.25 | 0.23 | < 0.010 |
| 15-Jun-95 | 8.2 | 403 | 216 | 254 | 15.2 | 13.49 | 43.02 | 35.64 | 1.09 | 20.7 | 0.33 | | < 0.5 | < 0.001 | 0.48 | 0.24 | < 0.010 |
| 15-Nov-95 | 8.18 | 432 | 218.2 | 259 | 14.2 | 12 | 45.1 | 35.7 | 0.92 | 20.3 | 0.356 | < 0.1 | < 0.1 | 0.003 | 0.11 | 0.53 | < 0.010 |
| 19-Jun-96 | 7.88 | 423 | 236 | 259 | 20.1 | 12.3 | 46.2 | 35.1 | 1.14 | 20.2 | 0.331 | < 0.06 | < 0.05 | < 0.001 | 0.10 | < 0.01 | < 0.010 |
| 14-Nov-96 | 8.41 | 487 | 232 | 265 | 11.8 | 10.5 | 49.6 | 34.5 | 1.2 | 22.1 | 0.3 | < 0.06 | 0.07 | < 0.001 | 0.07 | 0.15 | < 0.010 |
| 18-Jun-97 | 7.95 | 471 | 236 | 241 | 13.2 | 9.93 | 43.9 | 31.9 | 0.96 | 21.2 | 0.292 | < 0.014 | < 0.014 | < 0.001 | 0.06 | 0.358 | 0.005 |
| 19-Nov-97 | 7.86 | 518 | 232 | 306 | 18.3 | 9.58 | 59.8 | 38.1 | 0.96 | 22.2 | 0.284 | < 0.014 | < 0.014 | < 0.001 | 0.04 | 0.586 | 0.006 |
| 24-Jun-98 | 7.72 | 519 | 240 | 249 | 17.7 | 10.6 | 46.1 | 32.4 | 1.04 | 21.1 | 0.308 | < 0.014 | < 0.014 | < 0.001 | 0.05 | 0.348 | 0.005 |
| 19-Nov-98 | 7.8 | 540 | 250 | 260 | 18 | 11 | 48 | 35 | < 1 | 21 | 0.42 | < 0.1 | < 0.1 | < 0.000 | < 0.05 | 0.51 | < 0.010 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P7**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 18-Aug-99 | 7.9 | 583 | 246 | 289 | 36.9 | 12.4 | 50.5 | 39.6 | 1.4 | 24.8 | 0.31 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.43 | 0.006 |
| 14-Dec-99 | 7.92 | 585 | 244 | 282 | 28.4 | 12.8 | 48.8 | 39 | < 1 | 21.6 | 0.34 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.69 | 0.007 |
| 19-Jul-00 | 8.01 | 496 | 249 | 281 | 25.3 | 12.7 | 48.6 | 38.7 | 1 | 22.4 | 0.32 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.71 | 0.006 |
| 06-Dec-00 | 7.92 | 424 | 258 | 278 | 28 | 12.6 | 48.9 | 37.9 | < 1 | 21.4 | 0.36 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.36 | < 0.005 |
| 10-Jul-01 | 7.82 | 553 | 263 | 306 | 29.8 | 14.6 | 54.6 | 41.2 | < 1 | 30.2 | 0.28 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.39 | 0.006 |
| 06-Nov-01 | 7.87 | 565 | 248 | 304 | 33.2 | 12.4 | 45.2 | 35.9 | 0.9 | 23.1 | 0.33 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.48 | < 0.005 |
| 12-Jun-02 | 7.87 | 599 | 255 | 310 | 35.8 | 13 | 55.1 | 41.7 | < 1 | 22.4 | 0.3 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.47 | < 0.005 |
| 04-Nov-02 | 7.86 | 558 | 247 | 282 | 34.1 | 13.1 | 50.6 | 37.7 | 2 | 22.8 | 0.32 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.49 | 0.005 |
| 18-Jun-03 | 7.95 | 596 | 247 | 280.7 | 36 | 14.2 | 48.8 | 38.5 | 1 | 24 | 0.29 | < 0.01 | < 0.05 | < 0.001 | 0.03 | 0.18 | 0.006 |
| 23-Oct-03 | 7.88 | 620 | 249 | 304.1 | 43.5 | 15.1 | 53.7 | 41.2 | 1 | 22.2 | | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.27 | 0.005 |
| 29-Jun-04 | 7.94 | 640 | 263 | 327.7 | 55.9 | 17.3 | 56.4 | 45.3 | 2 | 28.1 | 0.36 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.66 | 0.092 |
| 28-Oct-04 | 7.97 | 639 | 259 | 333 | 47.8 | 17.1 | 62.2 | 43.1 | 1 | 23.7 | 0.35 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.5 | 0.010 |
| 12-Jul-05 | 8.25 | 642 | 255 | 304 | 49 | 17.5 | 53.7 | 42.9 | < 1 | 16 | 0.33 | < 0.3 | < 0.2 | < 0.001 | 0.03 | 0.09 | < 0.010 |
| 17-Nov-05 | 8.16 | 617 | 264 | 330 | 52 | 19.3 | 58.4 | 45.4 | 1 | 42 | 0.3 | < 0.01 | < 0.1 | < 0.001 | 0.04 | 0.06 | < 0.010 |
| 27-Jun-06 | 8.2 | 697 | 280 | 330 | 66 | 22 | 58 | 45 | 1.1 | 25 | 0.43 | < 0.01 | < 0.1 | < 0.001 | 0.04 | 0.37 | 0.005 |
| 20-Nov-06 | 8.3 | 707 | 280 | 350 | 62 | 23 | 61 | 49 | 1.3 | 25 | 0.41 | < 0.01 | < 0.1 | < 0.001 | 0.04 | 0.55 | 0.006 |
| 22-Jun-07 | 8.3 | 682 | 261 | 330 | 59 | 21 | 58 | 44 | 1.2 | 26 | 0.47 | < 0.01 | < 0.1 | < 0.001 | 0.24 | 0.45 | 0.004 |
| 02-Nov-07 | 8.3 | 652 | 253 | 330 | 48 | 19 | 59 | 43 | 1.2 | 25 | 0.34 | < 0.01 | < 0.1 | < 0.001 | 0.34 | 0.48 | 0.050 |
| 24-Jun-08 | 8.2 | 634 | 247 | 280 | | 16 | 53 | 37 | 1.1 | | 0.25 | < 0.01 | < 0.1 | < 0.001 | 0.03 | < 0.1 | 0.005 |
| 12-Dec-08 | 8.1 | 743 | 263 | 300 | 71 | 19 | 55 | 41 | 1.1 | 22 | 0.38 | < 0.01 | < 0.1 | < 0.001 | 0.03 | < 0.1 | 0.004 |
| 14-Jul-09 | 7.8 | 661 | 250 | 290 | 53 | 17 | 52 | 39 | 1.1 | 24 | 0.34 | < 0.01 | < 0.1 | < 0.001 | 0.03 | 0.41 | 0.004 |
| 30-Nov-09 | 8 | 768 | 259 | 350 | 78 | 25 | 62 | 48 | 1.3 | 26 | 0.4 | < 0.01 | < 0.1 | < 0.001 | 0.05 | 0.35 | 0.004 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P8**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 01-Apr-84 | 7.9 | 500 | 244 | 255 | 6 | | | | | 20 | < 0.1 | | < 0.1 | | | | |
| 29-Jul-87 | 8.2 | 504 | 244 | | 9 | 8 | 55 | 32 | 0.7 | 23 | 0.06 | < 0.01 | < 0.01 | < 0.001 | 0.02 | 0.1 | < 0.010 |
| 10-Dec-87 | 8.2 | 492 | 246 | | 9 | 9 | 58 | 34 | < 0.5 | 23 | 0.06 | < 0.01 | 0.13 | < 0.001 | 0.03 | 0.04 | < 0.010 |
| 01-Aug-88 | 8.46 | 503 | 248 | | 8.83 | 8.4 | 55.6 | 34.4 | 1.1 | 26 | 1.39 | < 0.01 | 0.12 | < 0.001 | < 0.00 | 0.27 | < 0.010 |
| 01-Feb-89 | 7.95 | 490 | 242 | 270 | 8.02 | | | | | 22.8 | 0.05 | | 0.05 | < 0.001 | | 0.07 | |
| 01-Jun-89 | 7.42 | 505 | 247 | 268.7 | 7.23 | | | | | 34.9 | < 0.02 | | 0.15 | < 0.001 | | 0.27 | |
| 01-Nov-89 | 8.29 | 486 | 251 | 241.8 | 8.97 | | | | | 26.5 | 0.03 | | 0.18 | 0.001 | | 0.17 | |
| 01-Jul-90 | 7.97 | 46 | 242 | 227.2 | 9.98 | | | | | 22.8 | 0.11 | | 0.07 | < 0.001 | | 0.2 | |
| 01-Nov-90 | 8.26 | 482 | 239 | 266.8 | 9.73 | | | | | 23 | 0.1 | | 0.05 | < 0.001 | | 0.08 | |
| 21-Jun-91 | 8.12 | 468 | 240 | 249.3 | 10.9 | | | | | 24 | 0.04 | | 0.16 | < 0.001 | | 0.04 | |
| 11-Oct-91 | 7.92 | 467 | 242 | 252.3 | 9.91 | | | | | 24.3 | 0.04 | | 0.15 | < 0.001 | | 0.04 | |
| 11-Jun-92 | 7.78 | 499 | 244 | 290 | 10.5 | 8.2 | 55.6 | 32.6 | < 1 | 24.6 | < 0.02 | | 0.16 | < 0.001 | 0.01 | 0.31 | < 0.010 |
| 10-Nov-92 | 7.87 | 472 | 241 | 280.8 | 11.5 | 8.4 | 59.2 | 32.2 | 1 | < 25.1 | 0.03 | | < 0.16 | < 0.001 | 0.02 | 0.11 | < 0.010 |
| 10-Jun-93 | 7.79 | 498 | 243 | 258.8 | 12.1 | 7.7 | 52.5 | 30.9 | 1 | 24.2 | 0.11 | | 0.06 | < 0.001 | 0.02 | 0.22 | < 0.010 |
| 05-Nov-93 | 8 | 450 | 239 | 245 | 8.2 | 8.6 | 50.4 | 28.8 | < 1 | 22.8 | 0.07 | | 0.1 | < 0.001 | 0.02 | 0.13 | < 0.010 |
| 05-Nov-93 | 7.84 | 407 | 248.75 | 242.1 | 17.25 | 7.8 | 51.28 | 27.78 | 1.06 | 21.29 | < 2 | | < 0.5 | | 0.26 | 0.28 | 0.010 |
| 29-Jun-94 | 8.3 | 456 | 245 | 294 | 11.4 | 9 | 60.6 | 34.8 | 1.15 | 23.8 | < 0.01 | | 0.6 | < 0.001 | 0.32 | 0.34 | < 0.010 |
| 27-Oct-94 | 8.1 | 475 | 233 | 236 | 10 | 10.2 | 44 | 30.7 | 1.12 | 23.7 | < 0.01 | | 1.1 | < 0.001 | 0.17 | 1.31 | 0.010 |
| 15-Jun-95 | 8.3 | 415 | 232 | 303 | 11.3 | 9.48 | 62.51 | 35.59 | 1.15 | 22.9 | 0.05 | | 1.1 | < 0.001 | 0.44 | 0.12 | 0.010 |
| 15-Nov-95 | 8.44 | 457 | 244.1 | 290 | 13.2 | 8.62 | 59.5 | 34.5 | 0.858 | 24 | 0.068 | < 0.1 | < 0.1 | < 0.001 | 0.09 | 0.08 | < 0.010 |
| 19-Jun-96 | 8.1 | 461 | 245 | 292 | 15.2 | 9.4 | 60.3 | 34.5 | 0.953 | 24.8 | 0.173 | < 0.06 | < 0.05 | < 0.001 | 0.09 | < 0.01 | 0.010 |
| 14-Nov-96 | 7.97 | 516 | 240 | 286 | 14.5 | 8.31 | 59.6 | 33.3 | 1.4 | 24.8 | 0.18 | < 0.06 | 0.07 | < 0.001 | 0.05 | 0.59 | 0.020 |
| 18-Jun-97 | 8 | 495 | 248 | 270 | 11.7 | 7.73 | 56.5 | 31.4 | 0.78 | 24.2 | 0.134 | < 0.014 | < 0.014 | < 0.001 | 0.04 | 0.595 | 0.007 |
| 19-Nov-97 | 8.13 | 535 | 242 | 331 | 15.5 | 7.35 | 75.1 | 34.9 | 0.8 | 25.3 | 0.118 | < 0.014 | < 0.014 | < 0.001 | 0.02 | 0.412 | 0.009 |
| 24-Jun-98 | 7.74 | 536 | 248 | 256 | 16.3 | 8.03 | 54.3 | 29.3 | 0.86 | 24.5 | 0.159 | < 0.014 | < 0.014 | < 0.001 | 0.04 | 0.619 | 0.008 |
| 19-Nov-98 | 7.8 | 540 | 260 | 280 | 14 | 8.1 | 59 | 32 | < 1 | 24 | 0.3 | < 0.1 | < 0.1 | < 0.000 | < 0.05 | 0.45 | < 0.010 |
| 18-Aug-99 | 7.96 | 592 | 246 | 289 | 23.7 | 8.9 | 59.5 | 34 | < 1 | 26.5 | 0.16 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.49 | 0.009 |
| 14-Dec-99 | 7.95 | 548 | 248 | 276 | 15.8 | 8.6 | 56.5 | 32.7 | < 1 | 23.7 | 0.16 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.19 | 0.008 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P8**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 19-Jul-00 | 8.15 | 505 | 258 | 297 | 22.4 | 9.4 | 60.4 | 35.4 | < 1 | 25.6 | 0.17 | < 0.2 | < 0.2 | < 0.001 | 0.01 | 0.02 | 0.014 |
| 06-Dec-00 | 7.91 | 411 | 260 | 275 | 18.3 | 8.3 | 56.7 | 32.5 | < 1 | 23.3 | 0.17 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.7 | 0.011 |
| 08-Aug-01 | 8.04 | 506 | 251 | 285 | 18.5 | 8 | 58 | 34 | < 1 | 23.4 | 0.13 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.16 | 0.008 |
| 06-Nov-01 | 7.96 | 556 | 279 | 313 | 25.1 | 9.2 | 59.4 | 36.7 | 1 | 25.7 | 0.18 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.4 | 0.008 |
| 12-Jun-02 | 7.81 | 569 | 254 | 307 | 28.1 | 9.1 | 63.6 | 36.1 | < 1 | 22.9 | 0.16 | < 0.2 | < 0.2 | < 0.001 | 0.01 | 0.3 | 0.008 |
| 04-Nov-02 | 7.88 | 551 | 252 | 292 | 31.2 | 9.4 | 60.7 | 34.1 | 2 | 26.2 | 0.15 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.38 | 0.009 |
| 18-Jun-03 | 7.95 | 603 | 249 | 295.4 | 34 | 10 | 61 | 34.7 | < 1 | 26 | 0.16 | < 0.01 | < 0.05 | < 0.001 | < 0.01 | 0.41 | 0.011 |
| 23-Oct-03 | 8 | 561 | 249 | 285.7 | 26.5 | 8.8 | 58.9 | 33.6 | < 1 | 23.6 | | < 0.2 | < 0.2 | < 0.001 | 0.01 | 0.34 | 0.007 |
| 29-Jun-04 | 7.89 | 567 | 252 | 306 | 33.1 | 10 | 65.6 | 34.4 | < 1 | 27.9 | 0.14 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.47 | 0.013 |
| 28-Oct-04 | 8.06 | 577 | 247 | 291.6 | 27 | 9.7 | 60.3 | 34.2 | 1 | 26.6 | 0.14 | < 0.2 | < 0.2 | < 0.001 | 0.01 | 0.58 | 0.008 |
| 12-Jul-05 | 8.26 | 573 | 251 | 287 | 26 | 10.2 | 60.2 | 35.9 | < 1 | 17 | 0.15 | < 0.3 | < 0.2 | < 0.001 | < 0.02 | 0.59 | < 0.010 |
| 17-Nov-05 | 8.19 | 553 | 256 | 300 | 37 | 11.2 | 61.4 | 35.3 | < 1 | 24 | 0.13 | < 0.01 | < 0.1 | < 0.001 | < 0.02 | 1.1 | 0.020 |
| 27-Jun-06 | 8.2 | 620 | 269 | 310 | 40 | 11 | 64 | 35 | 0.99 | 26 | 0.18 | < 0.01 | < 0.1 | < 0.001 | 0.02 | 0.66 | 0.008 |
| 20-Nov-06 | 8.2 | 673 | 271 | 320 | 48 | 13 | 68 | 37 | 0.98 | 26 | 0.24 | < 0.01 | < 0.1 | < 0.001 | 0.02 | 0.86 | 0.010 |
| 22-Jun-07 | 8.1 | 625 | 257 | 330 | 44 | 13 | 69 | 39 | 1.1 | 26 | 0.26 | 0.02 | < 0.1 | < 0.001 | 0.09 | 0.52 | 0.012 |
| 02-Nov-07 | 8.2 | 612 | 252 | 320 | 36 | 11 | 68 | 36 | 1 | 27 | 0.15 | < 0.01 | < 0.1 | < 0.001 | 0.19 | 0.58 | 0.014 |
| 24-Jun-08 | 8.2 | 630 | 249 | 270 | | 10 | 56 | 31 | 0.73 | | 0.08 | < 0.01 | < 0.1 | < 0.001 | < 0.01 | 0.27 | 0.009 |
| 12-Dec-08 | 8.1 | 651 | 255 | 320 | 44 | 13 | 65 | 37 | 1 | 21 | 0.17 | < 0.01 | < 0.1 | < 0.001 | 0.01 | 0.54 | 0.015 |
| 28-Jul-09 | 8 | 626 | 252 | 320 | 39 | 14 | 64 | 40 | 0.99 | 26 | 0.17 | < 0.01 | < 0.1 | < 0.001 | 0.02 | 0.5 | 0.008 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P10**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 29-Jul-87 | 8.2 | 390 | 203 | | 4 | 29 | 39 | 20 | 1.5 | 9 | 0.08 | < 0.01 | < 0.01 | < 0.001 | 0.06 | < 0.01 | < 0.010 |
| 10-Dec-87 | 8.2 | 390 | 203 | | 4 | 21 | 40 | 22 | 0.5 | 10 | 0.25 | < 0.01 | < 0.01 | < 0.001 | 0.06 | < 0.01 | < 0.010 |
| 01-Aug-88 | 8.42 | 402 | 206 | | 3.84 | 20 | 41.9 | 21.7 | 1.4 | 10.1 | 1.87 | < 0.01 | < 0.01 | < 0.001 | 0.04 | 0.16 | < 0.010 |
| 01-Feb-89 | 7.95 | 402 | 208 | 184 | 4.42 | | | | | 11.2 | 0.24 | | < 0.01 | 0.001 | | 0.03 | |
| 01-Jun-89 | 7.59 | 413 | 211 | 188.7 | 4.25 | | | | | 17 | 0.16 | | < 0.02 | < 0.001 | | 0.15 | |
| 01-Nov-89 | 8.28 | 395 | 208 | 173.6 | 4.46 | | | | | 13.2 | 0.23 | | 0.03 | 0.001 | | 0.17 | |
| 15-Nov-90 | 8.07 | 509 | 233 | 252.5 | 12.7 | | | | | 36.7 | 0.31 | | < 0.02 | < 0.001 | | 0.24 | |
| 21-Jun-91 | 7.82 | 571 | 259 | 272.1 | 20 | | | | | 52.8 | 0.36 | | < 0.02 | < 0.001 | | 0.07 | |
| 11-Oct-91 | 7.8 | 569 | 255 | 279.3 | 19 | | | | | 55.9 | 0.38 | | < 0.02 | < 0.001 | | 0.02 | |
| 11-Jun-92 | 7.62 | 422 | 207 | 212.4 | 5.75 | 18.4 | 43.8 | 21.7 | < 1 | 17.6 | < 0.17 | | 0.04 | < 0.001 | 0.06 | 0.09 | < 0.010 |
| 10-Nov-92 | 7.5 | 482 | 215 | 237.5 | 10.3 | 18.1 | 54.1 | 24.8 | 2 | < 31.4 | 0.2 | | < 0.07 | < 0.001 | 0.09 | 0.11 | < 0.010 |
| 10-Jun-93 | 7.53 | 487 | 223 | 223.8 | 12 | 18 | 49.7 | 24.1 | 2 | 29.8 | 0.25 | | < 0.02 | < 0.001 | 0.10 | 0.15 | < 0.010 |
| 05-Nov-93 | 7.92 | 393 | 203 | 186.6 | 5.5 | 19 | 41.6 | 20 | < 1 | 20.7 | 0.17 | | < 0.1 | < 0.001 | 0.07 | 0.17 | < 0.010 |
| 05-Nov-93 | 7.7 | 359 | 211.25 | 175.17 | 15.81 | 15.38 | 40.5 | 18.03 | 1.2 | 18.26 | < 2 | | < 0.5 | | 0.31 | 0.32 | 0.010 |
| 29-Jun-94 | 8.3 | 423 | 215 | 225 | 10.9 | 19.5 | 50.4 | 24.1 | 1.77 | 23.8 | 0.26 | | 0.8 | < 0.001 | 0.40 | 0.33 | < 0.010 |
| 27-Oct-94 | 7.9 | 363 | 200 | 198 | 5.9 | 22.1 | 43.1 | 22.1 | 1.82 | 18.5 | 0.15 | | < 0.5 | < 0.001 | 0.27 | 0.15 | < 0.010 |
| 27-Oct-94 | 7.64 | 424 | 201.7 | 186 | 4.5 | 16.6 | 41.4 | 20 | < 1 | 16.1 | 0.1 | | < 0.1 | < 0.001 | 0.05 | 0.1 | < 0.010 |
| 15-Jun-95 | 8.2 | 341 | 199 | 206 | 6.4 | 19.71 | 45.7 | 22.17 | 1.65 | 14.6 | 0.1 | | < 0.5 | < 0.001 | 0.55 | < 0.01 | < 0.010 |
| 15-Nov-95 | 8.44 | 408 | 214.3 | 229 | 8.6 | 18.4 | 51.3 | 24.6 | 1.48 | 26.9 | 0.175 | < 0.1 | < 0.1 | < 0.001 | 0.14 | 0.09 | < 0.010 |
| 19-Jun-96 | 7.92 | 357 | 208 | 196 | 4.7 | 19.3 | 43.3 | 21.3 | 1.54 | 12.7 | 0.204 | < 0.06 | < 0.05 | < 0.001 | 0.09 | < 0.01 | < 0.010 |
| 14-Nov-96 | 8.27 | 381 | 192 | 197 | 4.1 | 17.7 | 44.2 | 21.2 | 1.5 | 12.1 | 0.16 | < 0.06 | 0.07 | < 0.001 | 0.08 | 0.17 | < 0.010 |
| 18-Jun-97 | 7.97 | 395 | 209 | 190 | 2.97 | 16.3 | 42.6 | 20.4 | 1.28 | 12 | 0.16 | < 0.014 | < 0.014 | < 0.001 | 0.09 | 0.18 | 0.004 |
| 19-Nov-97 | 7.75 | 407 | 206 | 216 | 3.28 | 14.5 | 53 | 20.2 | 1.15 | 13.2 | 0.07 | < 0.014 | < 0.014 | < 0.001 | 0.05 | 0.172 | 0.003 |
| 24-Jun-98 | 7.48 | 514 | 231 | 237 | 9.4 | 17.4 | 54.7 | 24.5 | 1.57 | 37.9 | 0.234 | < 0.014 | < 0.014 | < 0.001 | 0.14 | 0.166 | 0.005 |
| 19-Nov-98 | 7.8 | 420 | 220 | 190 | 2.9 | 16 | 43 | 20 | < 1 | 12 | 0.25 | < 0.1 | < 0.1 | < 0.000 | < 0.05 | 0.15 | < 0.010 |
| 18-Aug-99 | 7.83 | 414 | 208 | 188 | 3.8 | 16.6 | 41.4 | 20.5 | 1.3 | 13 | 0.11 | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.13 | < 0.005 |
| 14-Dec-99 | 7.85 | 418 | 206 | 187 | 2.8 | 16.4 | 41 | 20.6 | < 1 | 9.4 | 0.11 | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.23 | < 0.005 |
| 19-Jul-00 | 7.93 | 376 | 213 | 194 | 2.9 | 17.4 | 42.7 | 21.3 | 1 | 12.8 | 0.12 | < 0.2 | < 0.2 | < 0.001 | 0.06 | 0.39 | < 0.005 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P10**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 06-Dec-00 | 7.82 | 333 | 222 | 187 | 2.9 | 16.2 | 41.5 | 20.1 | 1 | 10.7 | 0.12 | < 0.2 | < 0.2 | < 0.001 | 0.06 | 0.09 | < 0.005 |
| 10-Jul-01 | 7.8 | 370 | 229 | 201 | 4.7 | 17.1 | 44.9 | 21.7 | 2 | 23 | 0.13 | < 0.2 | < 0.2 | < 0.001 | 0.06 | 0.38 | < 0.005 |
| 06-Nov-01 | 7.84 | 396 | 217 | 199 | 2.3 | 16.7 | 40.7 | 21.4 | 1.4 | 10.7 | 0.08 | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.13 | < 0.005 |
| 12-Jun-02 | 7.78 | 381 | 205 | 200 | 3.1 | 15.8 | 44.7 | 21.6 | 1 | 11.1 | 0.13 | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.2 | < 0.005 |
| 04-Nov-02 | 7.85 | 381 | 211 | 189 | 2.9 | 16.3 | 42 | 20.5 | 2 | 10.8 | 0.07 | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.33 | < 0.005 |
| 18-Jun-03 | 8.03 | 415 | 210 | 188.6 | 3 | 16.6 | 42.4 | 20 | 1 | 13 | 0.08 | < 0.01 | < 0.05 | < 0.001 | 0.04 | 0.31 | < 0.005 |
| 23-Oct-03 | 8.05 | 380 | 206 | 191 | 3.1 | 16.6 | 42.5 | 20.5 | 1 | 12.8 | | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.06 | 0.006 |
| 29-Jun-04 | 7.77 | 380 | 203 | 186.8 | 3.4 | 17 | 40.6 | 20.7 | 3 | 9.9 | 0.08 | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.85 | 0.032 |
| 28-Oct-04 | 7.87 | 392 | 198 | 190.3 | 2.2 | 16.3 | 43.4 | 19.8 | 2 | 8.8 | 0.13 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.84 | 0.026 |
| 12-Jul-05 | 8.27 | 411 | 216 | 196 | 3 | 17.6 | 41.2 | 21.7 | < 1 | < 1 | 0.29 | < 0.3 | < 0.2 | < 0.001 | 0.06 | 3.09 | 0.010 |
| 17-Nov-05 | 8.13 | 354 | 202 | 180 | 3 | 16.1 | 37.1 | 20.4 | 1 | 4 | 0.19 | 0.24 | < 0.1 | < 0.001 | 0.05 | 1.02 | 0.020 |
| 27-Jun-06 | 8.2 | 446 | 234 | 210 | 6 | 17 | 45 | 23 | 1.4 | 15 | 0.26 | < 0.01 | < 0.1 | 0.001 | 0.07 | 1.5 | 0.015 |
| 20-Nov-06 | 8.3 | 404 | 221 | 190 | 2 | 17 | 40 | 21 | 1.4 | 8 | 0.24 | < 0.01 | < 0.1 | < 0.001 | 0.05 | 1.6 | 0.013 |
| 22-Jun-07 | 8.1 | 501 | 240 | 250 | 10 | 11 | 56 | 27 | 1.6 | 26 | 0.42 | < 0.01 | < 0.1 | < 0.001 | 0.10 | 1.2 | 0.009 |
| 02-Nov-07 | 8.3 | 400 | 210 | 190 | 2 | 17 | 42 | 21 | 1.4 | 9 | 0.14 | < 0.01 | < 0.1 | < 0.001 | 0.49 | 1.8 | 0.014 |
| 24-Jun-08 | 8.2 | 389 | 206 | 160 | | 14 | 33 | 18 | 1.1 | | 0.1 | < 0.01 | < 0.1 | < 0.001 | 0.05 | 1.1 | 0.010 |
| 12-Dec-08 | 8.1 | 401 | 216 | 180 | 1 | 16 | 39 | 20 | 1.3 | 5 | 0.15 | < 0.01 | < 0.1 | < 0.001 | 0.04 | 1.5 | 0.021 |
| 14-Jul-09 | 7.7 | 394 | 209 | 170 | 2 | 15 | 36 | 19 | 1.3 | 2 | 0.31 | < 0.01 | < 0.1 | < 0.001 | 0.05 | 1.8 | 0.019 |
| 30-Nov-09 | 7.9 | 400 | 209 | 190 | 2 | 16 | 41 | 21 | 1.4 | 6 | 0.2 | < 0.01 | < 0.1 | < 0.001 | 0.06 | 2.8 | 0.019 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P11**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 01-Jul-90 | 8.19 | 407 | 209 | 147.9 | 7.41 | | | | | 24.8 | 0.25 | | < 0.02 | < 0.001 | | 0.06 | |
| 01-Nov-90 | 8.07 | 509 | 198 | 152.7 | 16 | | | | | 21.9 | 0.27 | | < 0.02 | < 0.001 | | 0.08 | |
| 21-Jun-91 | 8.01 | 400 | 196 | 184.8 | 7.21 | | | | | 26.1 | 0.29 | | < 0.02 | < 0.001 | | 0.11 | |
| 11-Oct-91 | 7.95 | 399 | 198 | 186.6 | 6.65 | | | | | 26 | 0.3 | | < 0.02 | < 0.001 | | 0.15 | |
| 11-Jun-92 | 7.72 | 422 | 199 | 209 | 6.25 | 15.8 | 38.8 | 24.3 | < 1 | 25.6 | < 0.29 | | < 0.02 | < 0.001 | 0.05 | 0.3 | 0.010 |
| 10-Nov-92 | 7.74 | 419 | 194 | 201.4 | 6.61 | 16 | 41 | 23.9 | 1 | < 25.3 | 0.29 | | < 0.02 | < 0.001 | 0.04 | 0.33 | 0.020 |
| 10-Jun-93 | 7.77 | 415 | 197 | 188.7 | 6.52 | 15.2 | 36.8 | 23.4 | 1 | 22.4 | 0.3 | | < 0.02 | < 0.001 | 0.05 | 0.28 | 0.020 |
| 05-Nov-93 | 8.05 | 459 | 217 | 219.1 | 10 | 15.4 | 46.7 | 24.8 | 4 | 33.8 | 0.18 | | 0.9 | < 0.001 | 0.04 | 0.22 | 0.020 |
| 05-Nov-93 | 7.94 | 422 | 228.75 | 227.16 | 82 | 14.05 | 50.42 | 24.66 | 3.23 | 33.81 | < 2 | | 415.81 | | 0.34 | 0.58 | 0.040 |
| 29-Jun-94 | 8.4 | 390 | 200 | 212 | 8.7 | 17.2 | 42.9 | 25.6 | 1.8 | 27.4 | < 0.01 | | 1.6 | < 0.001 | 0.36 | 0.23 | < 0.010 |
| 27-Oct-94 | 8 | 394 | 203 | 181 | 8.8 | 19.5 | 34.2 | 23.4 | 1.76 | 28 | < 0.1 | | 0.9 | < 0.001 | 0.24 | 0.14 | 0.030 |
| 15-Jun-95 | 8.2 | 344 | 196 | 207 | 7.5 | 17.49 | 41.37 | 25.16 | 1.85 | 24.7 | 0.27 | | 1.1 | < 0.001 | 0.47 | < 0.01 | 0.010 |
| 15-Nov-95 | 8.21 | 380 | 195.3 | 200 | 7.2 | 18 | 40.2 | 24.3 | 1.45 | 23.2 | 0.3 | < 0.1 | < 0.1 | < 0.001 | 0.10 | 0.16 | 0.010 |
| 19-Jun-96 | 7.91 | 353 | 208 | 203 | 8.2 | 18 | 40.9 | 24.6 | 1.78 | 24.9 | 0.292 | < 0.06 | 0.1 | < 0.001 | 0.10 | < 0.01 | 0.010 |
| 14-Nov-96 | 8.12 | 402 | 200 | 195 | 7.8 | 18.2 | 39.5 | 23.4 | 1.6 | 22.8 | 0.3 | < 0.06 | 0.07 | < 0.001 | 0.08 | 0.54 | 0.020 |
| 18-Jun-97 | 8.15 | 414 | 199 | 186 | 5.81 | 16.8 | 37.6 | 22.4 | 1.27 | 23 | 0.254 | < 0.014 | < 0.014 | < 0.001 | 0.07 | 0.531 | 0.017 |
| 19-Nov-97 | 7.91 | 440 | 200 | 195 | 7.03 | 14.9 | 39.7 | 23.3 | 1.18 | 27.4 | 0.239 | < 0.014 | < 0.014 | < 0.001 | 0.05 | 0.543 | 0.016 |
| 24-Jun-98 | 7.72 | 447 | 204 | 174 | 7.93 | 14.7 | 34.9 | 21.2 | 1.23 | 29 | 0.322 | < 0.014 | < 0.014 | < 0.001 | 0.12 | 0.428 | 0.014 |
| 19-Nov-98 | 7.8 | 460 | 210 | 210 | 7.6 | 15 | 42 | 25 | < 1 | 27 | 0.37 | < 0.1 | < 0.1 | < 0.000 | < 0.05 | 0.51 | 0.020 |
| 18-Aug-99 | 8 | 476 | 206 | 213 | 12.3 | 15 | 42.8 | 25.8 | < 1 | 35 | 0.24 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.31 | 0.015 |
| 14-Dec-99 | 8 | 478 | 201 | 207 | 10 | 15.8 | 41.5 | 25.2 | 1 | 30.8 | 0.27 | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.66 | 0.016 |
| 19-Jul-00 | 8.1 | 428 | 205 | 214 | 9.7 | 15.6 | 43.2 | 25.9 | 1 | 34.4 | 0.25 | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.66 | 0.016 |
| 06-Dec-00 | 7.97 | 379 | 216 | 213 | 10.4 | 14.9 | 43.4 | 25.5 | 1 | 30.5 | 0.27 | < 0.2 | 0.2 | < 0.001 | 0.05 | 0.21 | 0.013 |
| 10-Jul-01 | 7.87 | 387 | 216 | 207 | 9.8 | 16.2 | 41.8 | 24.9 | 2 | 37.8 | 0.21 | < 0.2 | < 0.2 | < 0.001 | 0.04 | 0.42 | 0.015 |
| 06-Nov-01 | 8 | 442 | 216 | 215 | 9.5 | 16.4 | 44.1 | 26 | 1.3 | 29.5 | 0.23 | < 0.2 | < 0.2 | < 0.001 | 0.05 | 0.57 | 0.015 |
| 12-Jun-02 | 7.87 | 449 | 200 | 217 | 8.8 | 14.4 | 43.9 | 26.1 | < 1 | 26.7 | 0.24 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.46 | 0.013 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P12**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 18-Jun-97 | 8.02 | 464 | 238 | 251 | 6.55 | 10.1 | 48.6 | 31.6 | 0.85 | 22.3 | 0.161 | < 0.014 | 0.12 | < 0.001 | 0.05 | 0.167 | 0.011 |
| 19-Nov-97 | 7.99 | 490 | 233 | 243 | 8.05 | 9.47 | 47.2 | 30.3 | 0.86 | 23.1 | 0.199 | < 0.014 | 0.041 | < 0.001 | 0.03 | 0.216 | 0.009 |
| 24-Jun-98 | 7.68 | 490 | 238 | 228 | 8.74 | 9.93 | 44.3 | 28.4 | 0.91 | 22.6 | 0.118 | < 0.014 | 0.151 | < 0.001 | 0.04 | 0.154 | 0.006 |
| 19-Nov-98 | 7.7 | 530 | 250 | 250 | 10 | 10 | 49 | 32 | < 1 | 23 | 0.33 | < 0.1 | < 0.1 | < 0.000 | < 0.05 | 0.16 | 0.010 |
| 18-Aug-99 | 8.25 | 514 | 244 | 260 | 16.3 | 10.5 | 50.7 | 32.4 | 1.1 | 25.2 | 0.32 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.14 | 0.012 |
| 14-Dec-99 | 7.97 | 525 | 245 | 258 | 10.9 | 10.5 | 50.4 | 32.1 | < 1 | 20.4 | 0.24 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.08 | 0.009 |
| 19-Jul-00 | 8.08 | 465 | 244 | 264 | 13 | 10.4 | 51.9 | 32.7 | < 1 | 24.5 | 0.24 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.15 | 0.010 |
| 06-Dec-00 | 7.97 | 403 | 261 | 267 | 16.4 | 10.7 | 52.9 | 32.8 | < 1 | 22.5 | 0.28 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.2 | 0.010 |
| 10-Jul-01 | 7.83 | 512 | 253 | 270 | 17.2 | 11.1 | 53.6 | 33 | < 1 | 32.5 | 0.13 | 0.3 | < 0.2 | < 0.001 | 0.03 | 0.11 | 0.009 |
| 06-Nov-01 | 7.96 | 516 | 260 | 287 | 16.9 | 11.4 | 52.4 | 35.7 | 0.9 | 23.4 | 0.21 | < 0.2 | < 0.2 | < 0.001 | 0.03 | 0.23 | 0.011 |
| 12-Jun-02 | 7.85 | 527 | 246 | 276 | 17 | 10.5 | 53.8 | 34.5 | < 1 | 21.3 | 0.2 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.16 | 0.010 |
| 04-Nov-02 | 7.95 | 539 | 251 | 233 | 24.8 | 37.4 | 48 | 27.4 | < 1 | 25.2 | 0.15 | 0.2 | < 0.2 | < 0.001 | 0.02 | 0.08 | 0.012 |
| 18-Jun-03 | 7.99 | 542 | 247 | 265.5 | 20 | 11.6 | 52.9 | 32.3 | < 1 | 24 | 0.21 | < 0.01 | < 0.05 | < 0.001 | 0.02 | 0.07 | 0.010 |
| 04-Dec-04 | 8.22 | 518 | 249 | 292.6 | 24.1 | 13.2 | 58.1 | 35.8 | < 1 | 22.5 | 0.2 | < 0.2 | < 0.2 | < 0.001 | 0.02 | 0.03 | 0.009 |
| 17-Nov-05 | 8.21 | 528 | 253 | 280 | 29 | 13.2 | 55.7 | 34.1 | < 1 | 23 | 0.14 | 0.07 | < 0.1 | < 0.001 | 0.02 | 0.11 | < 0.010 |
| 27-Jun-06 | 8.2 | 578 | 264 | 280 | 29 | 13 | 56 | 34 | 0.92 | 25 | 0.22 | 0.08 | < 0.1 | < 0.001 | 0.02 | 0.09 | 0.009 |
| 20-Nov-06 | 8.3 | 585 | 270 | 300 | 27 | 14 | 58 | 37 | 1 | 25 | 0.24 | < 0.01 | < 0.1 | < 0.001 | 0.03 | 0.14 | 0.010 |
| 22-Jun-07 | 8.3 | 568 | 250 | 280 | 29 | 14 | 54 | 35 | 0.97 | 26 | 0.3 | < 0.01 | < 0.1 | < 0.001 | 0.17 | 0.539 | 0.010 |
| 24-Jun-08 | 8.1 | 579 | 240 | 240 | | 13 | 48 | 30 | 0.83 | | 0.14 | < 0.01 | < 0.1 | < 0.001 | 0.02 | < 0.1 | 0.009 |
| 14-Jul-09 | 7.9 | 592 | 242 | 270 | 33 | 14 | 52 | 33 | 0.89 | 26 | 0.24 | < 0.01 | < 0.1 | < 0.001 | 0.03 | < 0.1 | 0.009 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - GENERAL ANALYSIS - EASTVIEW ROAD LANDFILL

**P13**

| | General Parameters | | | | Major Ions | | | | | | Other Constituents | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | pH | Cond-uctivity | Alk. as mg/L CaCO3 | Hard. | Cl mg/L | Na mg/L | Ca mg/L | Mg mg/L | K mg/L | SO4 mg/L | NH3-N mg/L | NO2-N mg/L | NO3-N mg/L | Phenol mg/L | B mg/L | Fe mg/L | Mn mg/L |
| ODWS | 6.5-8.5(a | | 30-500 a | 80-100 a | 250 a | 200 a | | | | 500 a | | 1.0 h | 10.0 h | | 5.0 h | 0.30 a | 0.05 a |
| 12-Jul-05 | 8.15 | 766 | 290 | 355 | 62 | 30.7 | 83.4 | 35 | < 1 | 20 | < 0.05 | < 0.3 | 1.6 | < 0.001 | < 0.02 | 0.1 | 0.010 |
| 17-Nov-05 | 8.09 | 865 | 338 | 400 | 85 | 42.8 | 101 | 36.5 | < 1 | 49 | < 0.05 | < 0.01 | 3.7 | < 0.001 | 0.03 | 0.03 | < 0.010 |
| 27-Jun-06 | 8.2 | 749 | 303 | 350 | 59 | 28 | 84 | 33 | 1 | 29 | < 0.05 | < 0.01 | 1.6 | < 0.001 | 0.02 | < 0.05 | 0.012 |
| 20-Nov-06 | 8.2 | 1030 | 371 | 450 | 105 | 53 | 110 | 42 | 1.2 | 35 | < 0.05 | < 0.01 | 3.7 | < 0.001 | 0.04 | < 0.05 | 0.005 |
| 22-Jun-07 | 8.1 | 880 | 330 | 390 | 71 | 22 | 99 | 34 | 1 | 30 | 0.1 | < 0.01 | 4.4 | < 0.001 | 0.19 | < 0.05 | 0.003 |
| 02-Nov-07 | 8.2 | 913 | 322 | 400 | 77 | 38 | 1 | 37 | 1 | 32 | < 0.05 | < 0.01 | 2.9 | < 0.001 | 0.25 | < 0.1 | 0.005 |
| 24-Jun-08 | 8.2 | 953 | 328 | 360 | | 38 | 91 | 32 | 0.91 | | < 0.05 | 0.03 | 4 | < 0.001 | 0.03 | < 0.1 | 0.003 |
| 12-Dec-08 | 8 | 923 | 327 | 390 | 80 | 43 | 97 | 35 | 0.96 | 29 | < 0.05 | < 0.01 | 4.4 | < 0.001 | 0.03 | < 0.1 | 0.002 |
| 14-Jul-09 | 7.8 | 943 | 320 | 380 | 88 | 39 | 93 | 35 | 0.96 | 34 | < 0.05 | < 0.01 | 3.6 | < 0.001 | 0.03 | < 0.1 | 0.003 |
| 30-Nov-09 | 7.9 | 875 | 303 | 400 | 87 | 36 | 95 | 38 | 1.1 | 43 | < 0.05 | < 0.01 | 2.3 | < 0.001 | 0.04 | < 0.1 | 0.004 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

## P5

| Date | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 01-Feb-84 | | | | | | | | | | | | | | |
| 01-Oct-84 | | | | | | | | | | | | | | |
| 01-Sep-85 | | | | | | | | | | | | | | |
| 01-Jan-86 | | | | | | | | | | | | | | |
| 01-Nov-86 | | | | | | | | | | | | | | |
| 29-Jul-87 | < 0.005 | < 0.01 | 0.160 | < 0.0005 | < 0.010 | < 0.050 | < 0.01 | | < 0.2 | < 0.05 | < 0.05 | 0.014 | 0.02 | 0.46 |
| 10-Dec-87 | 0.006 | < 0.01 | 0.150 | 0.0012 | < 0.010 | < 0.050 | 0.02 | | 0.3 | 0.07 | < 0.05 | < 0.005 | 0.08 | 0.25 |
| 01-Aug-88 | < 0.005 | < 0.01 | 0.143 | < 0.0005 | < 0.010 | < 0.050 | < 0.01 | | < 0.2 | < 0.05 | | 0.007 | 0.05 | 0.35 |
| 09-Feb-89 | | | | | | | | | | | | | | |
| 01-Jun-89 | | | | | | | | | | | | | | |
| 01-Nov-89 | | | | | | | | | | | | | | |
| 01-Jul-90 | | | | | | | | | | | | | | |
| 01-Nov-90 | | | | | | | | | | | | | | |
| 21-Jun-91 | | | | | | | | | | | | | | |
| 11-Oct-91 | | | | | | | | | | | | | | |
| 10-Nov-92 | < 0.005 | 0.19 | 0.079 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.06 | |
| 10-Jun-93 | < 0.005 | < 0.05 | 0.117 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.03 | |
| 05-Nov-93 | < 0.009 | 0.35 | 0.110 | < 0.0050 | 0.010 | 0.020 | 0.04 | 0.01 | < 0.01 | < 0.01 | 0.04 | 0.02 | 0.02 | |
| 05-Nov-93 | < 0.005 | < 0.05 | 0.119 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | 0.09 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.06 | |
| 29-Jun-94 | < 0.005 | < 0.05 | 0.099 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.02 | |
| 29-Jun-94 | < 0.0001 | 0.09 | 0.140 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | < 0.001 | < 0.01 | < 0.025 | 0.001 | < 0.05 | < 0.01 | |
| 27-Oct-94 | < 0.0001 | 0.75 | 0.180 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | 0.01 | < 0.01 | < 0.025 | < 0.001 | < 0.05 | 0.06 | |
| 27-Oct-94 | < 0.005 | 0.22 | 0.108 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | 0.01 | < 0.05 | < 0.05 | 0.09 | < 0.005 | 0.04 | |
| 15-Jun-95 | < 0.005 | 0.063 | 0.072 | < 0.0025 | < 0.001 | < 0.003 | < 0.001 | < 0.001 | < 0.05 | < 0.005 | < 0.02 | < 0.001 | 0.085 | < 0.05 |
| 15-Nov-95 | < 0.005 | 0.04 | 0.175 | < 0.0025 | < 0.001 | < 0.003 | < 0.001 | < 0.01 | < 0.05 | < 0.05 | 0.02 | < 0.01 | 0.02 | < 0.5 |
| 19-Jun-96 | < 0.005 | < 0.03 | 0.086 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | < 0.01 | < 0.01 | 0.3 |
| 14-Nov-96 | < 0.005 | < 0.03 | 0.170 | < 0.0025 | < 0.005 | 0.020 | 0.02 | < 0.01 | < 0.05 | < 0.05 | 0.05 | 0.02 | 0.02 | 0.5 |
| 07-Jul-97 | < 0.0011 | < 0.032 | 0.084 | 0.0006 | < 0.001 | < 0.001 | < 0.001 | < 0.0038 | < 0.0015 | < 0.0062 | 0.0085 | < 0.0012 | 0.0425 | 0.221 |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P5**

| Date | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 19-Nov-97 | < 0.0011 | < 0.032 | 0.130 | < 0.0004 | 0.001 | < 0.001 | 0.0027 | 0.009 | < 0.0015 | < 0.0062 | 0.0079 | < 0.0012 | 0.0583 | 0.29 |
| 24-Jun-98 | | | | | | | 0.0016 | | | < 0.0062 | | | 0.0558 | |
| 19-Nov-98 | | | | | | | < 0.02 | | | < 0.01 | | | 1.6 | |
| 18-Aug-99 | < 0.003 | < 0.03 | 0.084 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.003 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.683 | |
| 18-Aug-99 | < 0.003 | < 0.03 | 0.084 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.003 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.688 | |
| 14-Dec-99 | | | | | | | < 0.005 | | | < 0.02 | | | 0.947 | |
| 14-Dec-99 | | | | | | | < 0.005 | | | < 0.02 | | | 0.927 | |
| 19-Jul-00 | < 0.003 | < 0.03 | 0.131 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.34 | |
| 10-Jul-01 | 0.007 | < 0.03 | 0.157 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.295 | |
| 10-Oct-01 | < 0.005 | < 0.03 | 0.108 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.27 | |
| 12-Jun-02 | < 0.005 | < 0.03 | 0.100 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.009 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.314 | |
| 04-Nov-02 | < 0.005 | 0.04 | 0.083 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.401 | |
| 18-Jun-03 | < 0.005 | < 0.05 | 0.087 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.26 | |
| 23-Oct-03 | | | | | | | < 0.005 | | | < 0.02 | | | 0.352 | |
| 29-Jun-04 | < 0.005 | 0.58 | 0.147 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 1.58 | |
| 28-Oct-04 | < 0.005 | 0.13 | 0.152 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.023 | |
| 12-Jul-05 | | | | | | | < 0.01 | | | < 0.05 | | | 0.26 | |
| 17-Nov-05 | | | | | | | < 0.01 | | | < 0.05 | | | 0.24 | |
| 27-Jun-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.29 | |
| 20-Nov-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.11 | |
| 22-Jun-07 | | | | | | | < 0.005 | | | 0.0505 | | | 0.3905 | |
| 02-Nov-07 | | | | | | | < 0.005 | | | < 0.001 | | | 0.33 | |
| 24-Jun-08 | | | | | | | < 0.005 | | | < 0.001 | | | 0.081 | |
| 12-Dec-08 | | | | | | | < 0.005 | | | < 0.001 | | | 0.093 | |
| 14-Jul-09 | | | | | | | < 0.005 | | | < 0.001 | | | 0.056 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P6**

| Date | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 01-Apr-84 | | | | | | | | | | | | | | |
| 01-Sep-85 | | | | | | | | | | | | | | |
| 01-Nov-86 | | | | | | | | | | | | | | |
| 29-Jul-87 | < 0.005 | < 0.01 | 0.100 | < 0.0005 | < 0.010 | < 0.050 | < 0.01 | | < 0.2 | < 0.05 | < 0.05 | 0.009 | 0.34 | 0.43 |
| 10-Dec-87 | < 0.005 | < 0.01 | 0.090 | 0.0010 | < 0.010 | < 0.050 | 0.02 | | 0.3 | < 0.05 | < 0.05 | 0.022 | 0.53 | 0.42 |
| 01-Aug-88 | < 0.005 | < 0.01 | 0.096 | < 0.0050 | < 0.010 | < 0.050 | < 0.01 | | < 0.2 | < 0.05 | | < 0.005 | 0.13 | 0.47 |
| 01-Feb-89 | | | | | | | | | | | | | | |
| 01-Jun-89 | | | | | | | | | | | | | | |
| 01-Nov-89 | | | | | | | | | | | | | | |
| 01-Jul-90 | | | | | | | | | | | | | | |
| 01-Nov-90 | | | | | | | | | | | | | | |
| 21-Jun-91 | | | | | | | | | | | | | | |
| 11-Oct-91 | | | | | | | | | | | | | | |
| 11-Jun-92 | < 0.005 | 0.08 | 0.106 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.04 | |
| 10-Nov-92 | < 0.005 | 1.05 | 0.106 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.08 | |
| 10-Jun-93 | < 0.005 | < 0.05 | 0.105 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.06 | |
| 05-Nov-93 | < 0.009 | 0.27 | 0.100 | < 0.0050 | < 0.001 | 0.020 | 0.03 | < 0.002 | < 0.01 | < 0.01 | < 0.02 | 0.02 | 0.05 | |
| 05-Nov-93 | < 0.005 | < 0.05 | 0.110 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.1 | |
| 29-Jun-94 | < 0.0001 | 0.11 | 0.140 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | < 0.001 | < 0.01 | < 0.025 | < 0.001 | < 0.05 | < 0.01 | |
| 27-Oct-94 | < 0.0001 | 0.62 | 0.180 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | 0.16 | < 0.01 | < 0.025 | < 0.001 | < 0.05 | 0.14 | |
| 15-Jun-95 | < 0.005 | 0.06 | 0.120 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | < 0.01 | 0.03 | |
| 15-Nov-95 | < 0.005 | < 0.03 | 0.120 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | < 0.01 | 0.05 | 0.7 |
| 19-Jun-96 | < 0.005 | < 0.03 | 0.114 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | < 0.01 | < 0.01 | 0.5 |
| 14-Nov-96 | < 0.005 | < 0.03 | 0.120 | < 0.0025 | < 0.005 | 0.010 | 0.02 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | 0.02 | 0.09 | 0.5 |
| 18-Jun-97 | < 0.0011 | < 0.032 | 0.106 | < 0.0004 | < 0.001 | 0.003 | < 0.001 | < 0.0038 | < 0.0015 | < 0.0062 | < 0.006 | < 0.0012 | 0.0675 | 0.46 |
| 19-Nov-97 | < 0.0011 | < 0.032 | 0.098 | < 0.0004 | < 0.001 | 0.003 | 0.0012 | 0.008 | < 0.0015 | < 0.0062 | < 0.006 | < 0.0012 | 0.0597 | 0.5 |
| 24-Jun-98 | | | | | | | 0.0026 | | | < 0.0062 | | | 0.0435 | |
| 19-Nov-98 | | | | | | | < 0.02 | | | < 0.01 | | | 0.03 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P6**

| | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 18-Aug-99 | < 0.003 | < 0.03 | 0.102 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.003 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.127 | |
| 14-Dec-99 | | | | | | | < 0.005 | | | < 0.02 | | | 0.189 | |
| 19-Jul-00 | < 0.003 | < 0.03 | 0.104 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.003 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.276 | |
| 08-Jan-01 | < 0.005 | < 0.03 | 0.102 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.042 | |
| 10-Jul-01 | < 0.005 | < 0.03 | 0.089 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.606 | < 0.02 | 0.05 | < 0.05 | < 0.005 | 0.527 | |
| 06-Nov-01 | < 0.0001 | < 0.005 | 0.102 | < 0.0010 | < 0.000 | < 0.000 | < 0.005 | 0.0142 | < 0.001 | < 0.001 | < 0.0005 | < 0.0005 | 0.05 | |
| 12-Jun-02 | < 0.005 | < 0.03 | 0.103 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.027 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.124 | |
| 04-Nov-02 | < 0.0001 | < 0.005 | 0.105 | < 0.0010 | < 0.000 | < 0.000 | < 0.005 | 0.0187 | < 0.001 | 0.001 | < 0.0005 | 0.0014 | 0.218 | |
| 18-Jun-03 | < 0.005 | < 0.05 | 0.101 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.033 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.291 | |
| 23-Oct-03 | | | | | | | < 0.005 | | | < 0.02 | | | 0.361 | |
| 28-Oct-04 | < 0.005 | 0.1 | 0.100 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.013 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.118 | |
| 17-Nov-05 | | | | | | | < 0.01 | | | < 0.05 | | | 0.02 | |
| 27-Jun-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.014 | |
| 22-Jun-07 | | | | | | | < 0.005 | | | < 0.001 | | | < 0.005 | |
| 02-Nov-07 | | | | | | | < 0.005 | | | < 0.001 | | | 0.8 | |
| 24-Jun-08 | | | | | | | < 0.005 | | | 0.002 | | | 0.009 | |
| 12-Dec-08 | | | | | | | < 0.005 | | | < 0.001 | | | 0.014 | |
| 14-Jul-09 | | | | | | | < 0.005 | | | < 0.001 | | | 0.059 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P7**

| | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 01-Feb-84 | | | | | | | | | | | | | | |
| 01-Oct-84 | | | | | | | | | | | | | | |
| 01-Sep-85 | | | | | | | | | | | | | | |
| 01-Jan-86 | | | | | | | | | | | | | | |
| 01-Nov-86 | | | | | | | | | | | | | | |
| 29-Jul-87 | < 0.005 | 0.02 | 0.090 | < 0.0005 | < 0.010 | < 0.050 | < 0.01 | | < 0.2 | < 0.05 | < 0.05 | 0.009 | 0.01 | 0.39 |
| 01-Feb-89 | | | | | | | | | | | | | | |
| 01-Jun-89 | | | | | | | | | | | | | | |
| 01-Nov-89 | | | | | | | | | | | | | | |
| 01-Jul-90 | | | | | | | | | | | | | | |
| 01-Nov-90 | | | | | | | | | | | | | | |
| 21-Jun-91 | | | | | | | | | | | | | | |
| 11-Oct-91 | | | | | | | | | | | | | | |
| 11-Jun-92 | < 0.005 | 0.07 | 0.082 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | < 0.01 | |
| 10-Nov-92 | < 0.005 | 0.44 | 0.113 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | < 0.01 | |
| 10-Jun-93 | < 0.005 | < 0.05 | 0.095 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.02 | |
| 05-Nov-93 | < 0.009 | 0.13 | 0.080 | < 0.0050 | 0.020 | 0.020 | 0.03 | < 0.002 | < 0.01 | < 0.01 | 0.04 | 0.02 | < 0.02 | |
| 05-Nov-93 | < 0.005 | < 0.05 | 0.110 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.01 | |
| 29-Jun-94 | < 0.0001 | 0.14 | 0.145 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | < 0.001 | < 0.01 | < 0.025 | < 0.001 | < 0.05 | < 0.01 | |
| 27-Oct-94 | < 0.0001 | 0.59 | 0.170 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | 0.07 | < 0.01 | < 0.025 | 0.001 | < 0.05 | 0.01 | |
| 15-Jun-95 | < 0.005 | 0.05 | 0.120 | < 0.0025 | < 0.005 | 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | < 0.01 | < 0.01 | |
| 15-Nov-95 | | | 0.110 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | 0.03 | < 0.01 | 0.01 | |
| 19-Jun-96 | < 0.005 | < 0.03 | 0.099 | < 0.0025 | < 0.005 | 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | < 0.01 | < 0.01 | 0.4 |
| 14-Nov-96 | < 0.005 | < 0.03 | 0.090 | < 0.0025 | < 0.005 | < 0.010 | 0.02 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | 0.02 | < 0.01 | 0.4 |
| 18-Jun-97 | < 0.0011 | < 0.032 | 0.089 | < 0.0004 | < 0.001 | < 0.001 | < 0.001 | < 0.0038 | < 0.0015 | < 0.0062 | < 0.006 | < 0.0012 | 0.0124 | 0.4 |
| 19-Nov-97 | < 0.0011 | < 0.032 | 0.095 | < 0.0004 | 0.002 | 0.003 | 0.0013 | < 0.0038 | < 0.0015 | < 0.0062 | < 0.006 | 0.0013 | 0.019 | 0.39 |
| 24-Jun-98 | | | | | | | 0.0033 | | | < 0.0062 | | | 0.0071 | |
| 19-Nov-98 | | | | | | | < 0.02 | | | < 0.01 | | | < 0.01 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P7**

| | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 18-Aug-99 | < 0.003 | < 0.03 | 0.124 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.006 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.011 | |
| 14-Dec-99 | | | | | | | < 0.005 | | | < 0.02 | | | 0.008 | |
| 19-Jul-00 | < 0.003 | < 0.03 | 0.119 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.003 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 06-Dec-00 | < 0.005 | < 0.03 | 0.124 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 10-Jul-01 | < 0.005 | < 0.03 | 0.131 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.028 | |
| 06-Nov-01 | < 0.0001 | 0.006 | 0.123 | < 0.0010 | < 0.000 | < 0.000 | < 0.005 | < 0.0005 | < 0.001 | < 0.001 | < 0.0005 | 0.0005 | < 0.005 | |
| 12-Jun-02 | < 0.005 | < 0.03 | 0.117 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.006 | |
| 04-Nov-02 | < 0.005 | < 0.03 | 0.113 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 18-Jun-03 | < 0.005 | < 0.05 | 0.121 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.017 | |
| 23-Oct-03 | | | | | | | < 0.005 | | | < 0.02 | | | 0.006 | |
| 29-Jun-04 | < 0.005 | 0.44 | 0.157 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 1.09 | |
| 28-Oct-04 | < 0.005 | < 0.05 | 0.142 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.059 | |
| 12-Jul-05 | | | | | | | < 0.01 | | | < 0.05 | | | 0.03 | |
| 17-Nov-05 | | | | | | | < 0.01 | | | < 0.05 | | | 0.02 | |
| 27-Jun-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.014 | |
| 20-Nov-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.007 | |
| 22-Jun-07 | | | | | | | < 0.005 | | | < 0.001 | | | 0.3535 | |
| 02-Nov-07 | | | | | | | < 0.005 | | | < 0.001 | | | 0.22 | |
| 24-Jun-08 | | | | | | | < 0.005 | | | < 0.001 | | | 0.012 | |
| 12-Dec-08 | | | | | | | < 0.005 | | | < 0.001 | | | 0.009 | |
| 14-Jul-09 | | | | | | | < 0.005 | | | < 0.001 | | | 0.016 | |
| 30-Nov-09 | | | | | | | < 0.005 | | | < 0.001 | | | 0.006 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P8**

| Date | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 01-Apr-84 | | | | | | | | | | | | | | |
| 29-Jul-87 | < 0.005 | < 0.01 | 0.060 | < 0.0005 | < 0.010 | < 0.050 | < 0.01 | | < 0.2 | < 0.05 | < 0.05 | 0.009 | 0.08 | 0.34 |
| 10-Dec-87 | < 0.005 | < 0.01 | 0.060 | < 0.0005 | < 0.010 | < 0.050 | 0.02 | | 0.2 | < 0.05 | < 0.05 | < 0.005 | 0.07 | 0.16 |
| 01-Aug-88 | < 0.005 | 0.03 | 0.059 | < 0.0005 | < 0.010 | < 0.050 | < 0.01 | | < 0.2 | < 0.05 | | < 0.005 | 0.12 | < 0.005 |
| 01-Feb-89 | | | | | | | | | | | | | | |
| 01-Jun-89 | | | | | | | | | | | | | | |
| 01-Nov-89 | | | | | | | | | | | | | | |
| 01-Jul-90 | | | | | | | | | | | | | | |
| 01-Nov-90 | | | | | | | | | | | | | | |
| 21-Jun-91 | | | | | | | | | | | | | | |
| 11-Oct-91 | | | | | | | | | | | | | | |
| 11-Jun-92 | < 0.005 | 0.07 | 0.071 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.26 | |
| 10-Nov-92 | < 0.005 | 0.98 | 0.075 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.37 | |
| 10-Jun-93 | < 0.005 | < 0.05 | 0.067 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | 0.01 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.09 | |
| 05-Nov-93 | < 0.005 | < 0.05 | 0.074 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | 0.02 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.07 | |
| 05-Nov-93 | < 0.009 | 0.24 | 0.060 | < 0.0050 | 0.010 | 0.020 | 0.03 | < 0.002 | < 0.01 | < 0.01 | < 0.02 | 0.02 | < 0.02 | |
| 29-Jun-94 | < 0.0001 | 0.15 | 0.100 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | < 0.001 | < 0.01 | < 0.025 | < 0.001 | < 0.05 | < 0.01 | |
| 27-Oct-94 | < 0.0001 | 0.52 | 0.130 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | 0.06 | < 0.01 | 0.19 | < 0.001 | < 0.05 | 0.07 | |
| 15-Jun-95 | < 0.005 | 0.1 | 0.080 | < 0.0025 | < 0.005 | 0.010 | < 0.01 | 0.03 | < 0.05 | < 0.05 | < 0.02 | 0.01 | 0.07 | |
| 15-Nov-95 | < 0.005 | 0.03 | 0.078 | < 0.0025 | < 0.005 | < 0.010 | 0.01 | | < 0.05 | < 0.05 | 0.03 | < 0.01 | 0.07 | < 0.5 |
| 19-Jun-96 | < 0.005 | < 0.03 | 0.770 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | < 0.01 | < 0.01 | 0.3 |
| 14-Nov-96 | < 0.005 | 0.03 | 0.060 | < 0.0025 | < 0.005 | 0.020 | 0.03 | 0.01 | < 0.05 | < 0.05 | 0.02 | 0.03 | 0.02 | 0.3 |
| 18-Jun-97 | < 0.0011 | < 0.032 | 0.073 | < 0.0004 | 0.001 | < 0.001 | < 0.001 | < 0.0038 | 0.0023 | < 0.0062 | < 0.006 | 0.0012 | 0.0085 | 0.19 |
| 19-Nov-97 | < 0.0011 | < 0.032 | 0.066 | < 0.0004 | 0.002 | < 0.001 | 0.0025 | < 0.0038 | < 0.0015 | < 0.0062 | < 0.006 | < 0.0012 | 0.0093 | 0.18 |
| 24-Jun-98 | | | | | | | 0.0033 | | | < 0.0062 | | | 0.0071 | |
| 19-Nov-98 | | | | | | | < 0.02 | | | < 0.01 | | | < 0.01 | |
| 18-Aug-99 | < 0.003 | < 0.03 | 0.072 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.003 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 14-Dec-99 | | | | | | | < 0.005 | | | < 0.02 | | | 0.005 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P8**

| Date | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 19-Jul-00 | < 0.003 | < 0.03 | 0.076 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 06-Dec-00 | < 0.005 | < 0.03 | 0.070 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 08-Aug-01 | < 0.005 | 0.07 | 0.065 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 06-Nov-01 | < 0.0001 | < 0.005 | 0.071 | < 0.0010 | < 0.000 | < 0.000 | < 0.005 | < 0.0005 | < 0.001 | < 0.001 | < 0.0005 | 0.0006 | < 0.005 | |
| 12-Jun-02 | < 0.005 | < 0.03 | 0.073 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 04-Nov-02 | < 0.005 | < 0.03 | 0.076 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 18-Jun-03 | < 0.005 | < 0.05 | 0.076 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.006 | |
| 23-Oct-03 | | | | | | | < 0.005 | | | < 0.02 | | | < 0.005 | |
| 29-Jun-04 | < 0.005 | < 0.05 | 0.078 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.05 | |
| 28-Oct-04 | < 0.005 | < 0.05 | 0.076 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 12-Jul-05 | | | | | | | < 0.01 | | | < 0.05 | | | < 0.01 | |
| 17-Nov-05 | | | | | | | < 0.01 | | | < 0.05 | | | < 0.01 | |
| 27-Jun-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.03 | |
| 20-Nov-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.017 | |
| 22-Jun-07 | | | | | | | < 0.005 | | | < 0.001 | | | 0.066 | |
| 02-Nov-07 | | | | | | | < 0.005 | | | < 0.001 | | | 0.14 | |
| 24-Jun-08 | | | | | | | < 0.005 | | | < 0.001 | | | 0.024 | |
| 12-Dec-08 | | | | | | | < 0.005 | | | < 0.001 | | | 0.01 | |
| 28-Jul-09 | | | | | | | < 0.005 | | | < 0.001 | | | 0.017 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

## P10

| Date | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 29-Jul-87 | < 0.005 | 0.04 | 0.040 | < 0.0005 | < 0.010 | < 0.500 | < 0.01 | | < 0.2 | < 0.5 | < 0.5 | 0.01 | 0.67 | 0.55 |
| 10-Dec-87 | < 0.005 | < 0.01 | 0.040 | < 0.0005 | < 0.010 | < 0.500 | 0.02 | | < 0.2 | < 0.5 | < 0.5 | < 0.005 | 0.34 | 0.57 |
| 01-Aug-88 | < 0.005 | < 0.01 | 0.044 | < 0.0005 | < 0.010 | < 0.500 | < 0.01 | | < 0.2 | < 0.5 | | < 0.005 | 0.17 | 0.6 |
| 01-Feb-89 | | | | | | | | | | | | | | |
| 01-Jun-89 | | | | | | | | | | | | | | |
| 01-Nov-89 | | | | | | | | | | | | | | |
| 15-Nov-90 | | | | | | | | | | | | | | |
| 21-Jun-91 | | | | | | | | | | | | | | |
| 11-Oct-91 | | | | | | | | | | | | | | |
| 11-Jun-92 | < 0.005 | 0.07 | 0.055 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.05 | |
| 10-Nov-92 | < 0.005 | 0.72 | 0.055 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.06 | |
| 10-Jun-93 | < 0.005 | < 0.05 | 0.056 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | 0.15 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.04 | |
| 05-Nov-93 | < 0.005 | < 0.05 | 0.055 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | 0.87 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.84 | |
| 05-Nov-93 | < 0.009 | 0.17 | 0.050 | < 0.0050 | < 0.001 | 0.020 | 0.03 | 0.28 | < 0.01 | < 0.01 | < 0.02 | 0.02 | 0.65 | |
| 29-Jun-94 | 0.0001 | 0.25 | 0.096 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | 0.87 | < 0.01 | < 0.025 | 0.002 | < 0.05 | < 0.01 | |
| 27-Oct-94 | < 0.0001 | 0.71 | 0.130 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | 0.05 | < 0.01 | < 0.025 | 0.002 | < 0.05 | 0.05 | |
| 27-Oct-94 | < 0.005 | < 0.05 | 0.050 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.04 | |
| 15-Jun-95 | < 0.005 | 0.08 | 0.060 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | 2.29 | < 0.05 | < 0.05 | 0.03 | < 0.01 | 0.06 | < 0.5 |
| 15-Nov-95 | < 0.005 | < 0.03 | 0.057 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.02 | < 0.01 | 0.02 | |
| 19-Jun-96 | < 0.005 | < 0.03 | 0.060 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.01 | 0.02 | 0.8 |
| 14-Nov-96 | < 0.005 | < 0.03 | 0.060 | < 0.0025 | < 0.005 | 0.010 | 0.01 | 0.01 | < 0.01 | < 0.05 | < 0.05 | 0.02 | 0.12 | 0.8 |
| 18-Jun-97 | < 0.0011 | < 0.032 | 0.055 | < 0.0004 | < 0.001 | < 0.001 | 0.0013 | 0.012 | 0.0026 | < 0.0062 | < 0.006 | < 0.0012 | 0.0626 | 0.79 |
| 19-Nov-97 | < 0.0011 | < 0.032 | 0.048 | < 0.0004 | 0.001 | 0.001 | 0.0031 | 0.005 | < 0.0015 | < 0.0062 | < 0.006 | < 0.0012 | 0.0504 | 0.76 |
| 24-Jun-98 | | | | | | | 0.0022 | | | < 0.0062 | | | 0.329 | |
| 19-Nov-98 | | | | | | | < 0.02 | | | < 0.01 | | | 0.08 | |
| 18-Aug-99 | < 0.003 | < 0.03 | 0.053 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.014 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.061 | |
| 14-Dec-99 | | | | | | | < 0.005 | | | < 0.02 | | | 0.178 | |
| 19-Jul-00 | < 0.003 | < 0.03 | 0.056 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.018 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.128 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P10**

| Date | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 06-Dec-00 | < 0.005 | < 0.03 | 0.052 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.177 | |
| 10-Jul-01 | < 0.005 | < 0.03 | 0.057 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.026 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.113 | |
| 06-Nov-01 | < 0.0001 | < 0.005 | 0.052 | < 0.0010 | < 0.000 | < 0.000 | < 0.005 | 0.0154 | 0.002 | < 0.001 | 0.0015 | 0.0006 | 0.171 | |
| 12-Jun-02 | < 0.005 | < 0.03 | 0.051 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.09 | |
| 04-Nov-02 | < 0.005 | < 0.03 | 0.054 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.012 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 18-Jun-03 | < 0.005 | < 0.05 | 0.055 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.023 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.225 | |
| 23-Oct-03 | | | | | | | < 0.005 | | | < 0.02 | | | 0.593 | |
| 29-Jun-04 | < 0.005 | 0.11 | 0.054 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.014 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.316 | |
| 28-Oct-04 | < 0.005 | < 0.05 | 0.051 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.043 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.988 | |
| 12-Jul-05 | | | | | | | < 0.01 | | | < 0.05 | | | 0.2 | |
| 17-Nov-05 | | | | | | | < 0.01 | | | < 0.05 | | | 0.12 | |
| 27-Jun-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.05 | |
| 20-Nov-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.028 | |
| 22-Jun-07 | | | | | | | < 0.005 | | | < 0.001 | | | 0.19 | |
| 02-Nov-07 | | | | | | | < 0.005 | | | < 0.001 | | | 0.1 | |
| 24-Jun-08 | | | | | | | < 0.005 | | | 0.01 | | | 0.11 | |
| 12-Dec-08 | | | | | | | < 0.005 | | | < 0.001 | | | 0.3 | |
| 14-Jul-09 | | | | | | | < 0.005 | | | < 0.001 | | | 0.047 | |
| 30-Nov-09 | | | | | | | < 0.005 | | | < 0.001 | | | 0.54 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P11**

| Date | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 01-Jul-90 | | | | | | | | | | | | | | |
| 01-Nov-90 | | | | | | | | | | | | | | |
| 21-Jun-91 | | | | | | | | | | | | | | |
| 11-Oct-91 | | | | | | | | | | | | | | |
| 11-Jun-92 | < 0.005 | 0.12 | 0.095 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.11 | |
| 10-Nov-92 | < 0.005 | 0.52 | 0.092 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.12 | |
| 10-Jun-93 | < 0.005 | < 0.05 | 0.088 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.09 | |
| 05-Nov-93 | < 0.005 | < 0.05 | 0.098 | < 0.0005 | < 0.005 | < 0.010 | < 0.01 | 0.02 | < 0.05 | < 0.05 | < 0.05 | < 0.005 | 0.87 | |
| 05-Nov-93 | < 0.009 | 0.3 | 0.090 | < 0.0050 | < 0.001 | 0.020 | 0.03 | < 0.002 | < 0.01 | < 0.01 | < 0.02 | 0.02 | 0.77 | |
| 29-Jun-94 | < 0.0001 | 0.18 | 0.140 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | < 0.001 | < 0.01 | < 0.025 | < 0.001 | < 0.05 | 0.21 | |
| 27-Oct-94 | < 0.0001 | 0.56 | 0.170 | < 0.0050 | < 0.000 | < 0.020 | < 0.01 | 0.05 | < 0.01 | < 0.025 | 0.001 | < 0.05 | 0.27 | |
| 15-Jun-95 | < 0.005 | 0.09 | 0.100 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | 0.02 | < 0.05 | < 0.05 | < 0.02 | < 0.01 | 0.26 | |
| 15-Nov-95 | < 0.005 | < 0.03 | 0.095 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | < 0.01 | 0.39 | 0.5 |
| 19-Jun-96 | < 0.005 | < 0.03 | 0.098 | < 0.0025 | < 0.005 | < 0.010 | < 0.01 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | < 0.01 | 0.07 | 0.5 |
| 14-Nov-96 | 0.005 | 0.05 | 0.090 | < 0.0025 | < 0.005 | 0.010 | 0.02 | < 0.01 | < 0.05 | < 0.05 | < 0.02 | 0.02 | 0.24 | 0.6 |
| 18-Jun-97 | < 0.0011 | < 0.032 | 0.091 | < 0.0004 | 0.001 | < 0.001 | < 0.001 | < 0.0038 | < 0.0015 | < 0.0062 | < 0.006 | < 0.0012 | 0.199 | 0.46 |
| 19-Nov-97 | 0.0028 | < 0.032 | 0.090 | < 0.0004 | < 0.001 | < 0.001 | 0.0023 | < 0.0038 | 0.0023 | < 0.0062 | 0.0148 | < 0.0012 | 0.204 | 0.46 |
| 24-Jun-98 | | | | | | | 0.0021 | | | < 0.0062 | | | 0.147 | |
| 19-Nov-98 | | | | | | | < 0.02 | | | < 0.01 | | | 0.14 | |
| 18-Aug-99 | < 0.003 | < 0.03 | 0.105 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.003 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.08 | |
| 14-Dec-99 | | | | | | | < 0.005 | | | < 0.02 | | | 0.141 | |
| 19-Jul-00 | < 0.003 | < 0.03 | 0.110 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.004 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.197 | |
| 06-Dec-00 | < 0.005 | < 0.03 | 0.101 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.214 | |
| 10-Jul-01 | < 0.005 | < 0.03 | 0.105 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.139 | |
| 06-Nov-01 | < 0.0001 | < 0.005 | 0.099 | < 0.0010 | < 0.000 | < 0.000 | < 0.005 | < 0.0005 | 0.003 | < 0.001 | < 0.0005 | < 0.0005 | 0.183 | |
| 12-Jun-02 | < 0.005 | < 0.03 | 0.097 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.112 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P12**

| | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 18-Jun-97 | < 0.0011 | < 0.032 | 0.135 | < 0.0004 | 0.002 | < 0.001 | < 0.001 | 0.041 | 0.0031 | < 0.0062 | < 0.006 | 0.0014 | 0.0042 | 0.28 |
| 19-Nov-97 | < 0.0011 | < 0.032 | 0.118 | < 0.0004 | < 0.001 | 0.002 | 0.0029 | 0.063 | 0.0032 | < 0.0062 | 0.0077 | < 0.0012 | 0.0146 | 0.26 |
| 24-Jun-98 | | | | | | | 0.002 | | | 0.0072 | | | 0.0149 | |
| 19-Nov-98 | | | | | | | < 0.02 | | | < 0.01 | | | < 0.01 | |
| 18-Aug-99 | < 0.003 | < 0.03 | 0.132 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.013 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 14-Dec-99 | | | | | | | < 0.005 | | | < 0.02 | | | < 0.005 | |
| 19-Jul-00 | < 0.003 | < 0.03 | 0.138 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.015 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 06-Dec-00 | < 0.005 | < 0.03 | 0.133 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.017 | |
| 10-Jul-01 | 0.008 | 0.03 | 0.128 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.006 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.007 | |
| 06-Nov-01 | < 0.0001 | < 0.005 | 0.127 | < 0.0010 | < 0.000 | < 0.000 | < 0.005 | 0.005 | < 0.001 | < 0.001 | < 0.0005 | < 0.0005 | < 0.005 | |
| 12-Jun-02 | < 0.005 | < 0.03 | 0.126 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 04-Nov-02 | < 0.005 | 0.06 | 0.108 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | 0.056 | |
| 18-Jun-03 | < 0.005 | < 0.05 | 0.144 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | 0.017 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 04-Dec-04 | < 0.005 | < 0.05 | 0.446 | < 0.0005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.02 | < 0.02 | < 0.05 | < 0.005 | < 0.005 | |
| 17-Nov-05 | | | | | | | < 0.01 | | | < 0.05 | | | < 0.01 | |
| 27-Jun-06 | | | | | | | < 0.005 | | | < 0.001 | | | < 0.005 | |
| 20-Nov-06 | | | | | | | < 0.005 | | | < 0.001 | | | < 0.005 | |
| 22-Jun-07 | | | | | | | < 0.005 | | | < 0.001 | | | < 0.005 | |
| 24-Jun-08 | | | | | | | < 0.005 | | | < 0.001 | | | < 0.005 | |
| 14-Jul-09 | | | | | | | < 0.005 | | | < 0.001 | | | < 0.005 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# PRIVATE WATER WELL QUALITY - TRACE METALS ANALYSIS - EASTVIEW ROAD LANDFILL

**P13**

| | Trace Elements | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Ag mg/L | Al mg/L | Ba mg/L | Be mg/L | Cd mg/L | Co mg/L | Cr mg/L | Cu mg/L | Mo mg/L | Ni mg/L | Pb mg/L | V mg/L | Zn mg/L | F mg/L |
| ODWS | | 0.10 a | 1.0 h | | 0.005 h | | 0.05 h | 1.0 a | | | 0.01 h | | 5.0 a | 2.4 h |
| 12-Jul-05 | | | | | | | < 0.01 | | | < 0.05 | | | 0.07 | |
| 17-Nov-05 | | | | | | | < 0.01 | | | < 0.05 | | | 0.05 | |
| 27-Jun-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.069 | |
| 20-Nov-06 | | | | | | | < 0.005 | | | < 0.001 | | | 0.042 | |
| 22-Jun-07 | | | | | | | < 0.005 | | | < 0.001 | | | 0.2695 | |
| 02-Nov-07 | | | | | | | < 0.005 | | | < 0.001 | | | 0.5 | |
| 24-Jun-08 | | | | | | | < 0.005 | | | < 0.001 | | | 0.043 | |
| 12-Dec-08 | | | | | | | < 0.005 | | | < 0.001 | | | 0.057 | |
| 14-Jul-09 | | | | | | | < 0.005 | | | < 0.001 | | | 0.055 | |
| 30-Nov-09 | | | | | | | < 0.005 | | | < 0.001 | | | 0.057 | |

**Note: ODWS - Indicates Ontario Drinking Water Standards: a - Non health related objectives (Aesthetic or Operational)**
**h - Health related objectives**

# Appendix E

## Combustible Gas Monitoring Results

# Table E1. Gas Concentrations Readings – Landfill Monitors

| DATE | 1-I Waste % Vol | 51-I Waste % Vol | 51-II Outwash % Vol | 52-I Outwash % Vol | 55-I Outwash % Vol | 56-I Outwash % Vol | 57-I Outwash % Vol | 58-I Outwash % Vol | 59-I Waste % Vol | 61-I Outwash % Vol | 62-I Waste % Vol | 63-I Outwash % Vol | 64-I Waste % Vol | 65-I Waste % Vol | 66-I Outwash % Vol | 67-I Waste % Vol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **26-Mar-93** | 40 | 55 | 50 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **29-Apr-93** | 40 | 55 | 55 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **21-May-93** | 40 | 55 | 55 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **21-Jun-93** | 40 | 55 | 55 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **16-Jul-93** | 45 | 55 | 55 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **10-Aug-93** | 45 | 55 | 55 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **16-Sep-93** | 43 | 48 | 55 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **13-Oct-93** | 38 | 50 | 50 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **24-Nov-93** | 30 | 50 | 52 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **17-Dec-93** | 45 | 55 | 50 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| **19-Jan-94** | 10 | 50 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | n/a | n/a | n/a | n/a | n/a |
| **11-Feb-94** | 5 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | n/a | n/a | n/a | n/a | n/a |
| **10-Mar-94** | 4 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | n/a | n/a | n/a | n/a | n/a |
| **19-Apr-94** | 5 | 7 | 0.35 | 6 | 0.35 | 0.5 | 0.25 | 0.6 | 5 | 6 | n/a | n/a | n/a | n/a | n/a | n/a |
| **12-May-94** | 4 | 7 | 3.05 | 0.75 | 0.15 | 0.8 | 0.2 | 6 | 6 | 1.25 | n/a | n/a | n/a | n/a | n/a | n/a |
| **23-Jun-94** | 4 | 25 | 1.1 | 6 | 0.3 | 0.65 | 1.7 | 6 | 10 | 1.75 | n/a | n/a | n/a | n/a | n/a | n/a |
| **12-Jul-94** | 1 | 15 | 0.5 | 1.05 | 0.9 | 0.55 | 0.45 | 0.8 | 0 | 1.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| **10-Aug-94** | 11 | 25 | 0.6 | 0.95 | 0.8 | 3.6 | 2.4 | 1.05 | 6 | 3.05 | n/a | n/a | n/a | n/a | n/a | n/a |
| **16-Sep-94** | 25 | 22 | 1 | 7 | 0.2 | 5 | 1.05 | 0.5 | 10 | 1.75 | n/a | n/a | n/a | n/a | n/a | n/a |
| **12-Oct-94** | 2 | 15 | 0.85 | 1.6 | 0.8 | 0.5 | 0.25 | 1.4 | 2.85 | 1.95 | n/a | n/a | n/a | n/a | n/a | n/a |
| **11-Nov-94** | 0 | 15 | 0.3 | 1.85 | 0.5 | 1.75 | 1.05 | 0.35 | 7 | 0.4 | n/a | n/a | n/a | n/a | n/a | n/a |
| **14-Dec-94** | 4 | 18 | 0.4 | 10 | 0.95 | 3.85 | 0.9 | 1.1 | 10 | 0.9 | n/a | n/a | n/a | n/a | n/a | n/a |
| **17-Jan-95** | 1 | 10 | 0.85 | 1 | 1.2 | 0.3 | 0.45 | 0.7 | 6 | 0.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| **09-Feb-95** | 1 | 15 | 0.45 | 1.25 | 0.55 | 0.15 | 0.3 | 0.35 | 6 | 0.1 | n/a | n/a | n/a | n/a | n/a | n/a |
| **10-Mar-95** | 13 | 57 | 1.25 | 1.75 | 1.1 | 0.55 | 0.35 | 0.65 | 12 | 18 | 57 | 22 | n/a | n/a | n/a | n/a |
| **13-Apr-95** | 16 | 56 | 1.75 | 2.5 | 0.9 | 0.4 | 0.5 | 0.3 | 14 | 20 | 58 | 18 | n/a | n/a | n/a | n/a |
| **18-May-95** | 8 | 62 | 1.35 | 2.05 | 0.7 | 0.5 | 0.35 | 0.85 | 23 | 4.95 | 30 | 15 | n/a | n/a | n/a | n/a |
| **30-Jun-95** | 2 | 30 | 0.75 | 53 | 2.45 | 18 | 1.85 | 1.15 | 73 | 2.4 | 43 | 2.75 | n/a | n/a | n/a | n/a |
| **20-Jul-95** | 2 | 45 | 0.45 | 2.55 | 1.6 | 1 | 1.05 | 0.9 | 95 | 1.75 | 52 | 65 | 59 | 29 | 50 | 15 |
| **21-Sep-95** | 3 | 44 | 3.3 | 47 | 2.6 | 2.2 | 4.1 | 3.3 | 38 | 6 | 44 | 16 | 53 | 6 | 64 | 56 |
| **18-Oct-95** | 4 | 45 | 4.6 | 44 | 4 | 3.2 | 2.75 | 1.6 | 39 | 7 | 42 | 18 | 54 | 8 | 50 | 52 |
| **22-Nov-95** | 3 | 2.7 | 0 | 2.65 | 0.05 | 4 | 0.7 | 0 | 1.6 | 0.15 | 54 | 77 | 55 | 57 | 67 | 58 |
| **21-Dec-95** | 53 | 55 | 0.2 | 54 | 0.1 | 25 | 9 | 2 | 50 | 0.05 | 64 | 23 | 55 | 57 | 57 | 58 |
| **09-Jan-96** | 54 | 54 | 0.15 | 53 | 0.35 | 25 | 0.05 | 15 | 53 | 0.6 | 54 | 20 | 54 | 57 | 57 | 57 |
| **08-Feb-96** | 52 | 53 | 0 | 51 | 0.15 | 43 | 0.5 | 3.65 | 26 | 0.1 | 52 | 12 | 0 | 56 | 55 | 55 |
| **08-Mar-96** | 51 | 52 | 0.1 | 51 | 0 | 35 | 1.15 | 37 | 51 | 1.6 | 52 | 42 | 52 | 54 | 55 | 55 |
| **18-Apr-96** | 50 | 0.35 | 0.15 | 50 | 2 | 20 | 0.05 | 4.5 | 49 | 0.05 | 51 | 25 | 50 | 54 | 54 | 54 |
| **16-May-96** | 51 | 51 | 0.05 | 51 | 0.1 | 18 | 0.55 | 4 | 51 | 1.15 | 52 | 23 | 50 | 55 | 54 | 54 |
| **16-Jul-96** | 14 | 47 | 0.1 | 48 | 0.05 | 0.2 | 0 | 2.35 | 48 | 0.05 | 50 | 2.3 | 48 | 49 | 52 | 51 |
| **26-Sep-96** | 48 | 49 | 0.05 | 49 | 0.1 | 0 | 0 | 1.05 | 48 | 0 | 49 | 1.3 | 49 | 50 | 52 | 52 |
| **01-Nov-96** | 48 | 50 | 0.15 | 49 | 0.7 | 23 | 0 | 0.05 | 49 | 0 | 50 | 39 | 49 | 51 | 52 | 53 |
| **28-Nov-96** | 13 | 58 | 1.8 | 2.5 | 0.9 | 0.4 | 0.5 | 0.3 | 14 | 20 | 58 | 18 | 0 | 0 | 0 | 0 |
| **13-Dec-96** | 49 | 51 | 0 | 49 | 0.9 | 18 | 0 | 0 | 49 | 0.05 | 50 | 22 | 50 | 54 | 53 | 52 |
| **27-Jan-97** | 57 | 53 | 0 | 61 | 28 | 19 | 0 | 0 | 51 | 0.1 | 45 | 27 | 55 | 51 | 59 | 62 |
| **11-Feb-97** | 27 | 52 | 0.15 | 51 | 0.65 | 29 | 0 | 0 | 51 | 0 | 52 | 27 | 52 | 61 | 55 | 55 |
| **13-Mar-97** | 35 | 53 | 0.05 | 45 | 0.45 | 22 | 0 | 0 | 62 | 0 | 45 | 22 | 45 | 65 | 33 | 61 |
| **30-Apr-97** | 46 | 50 | 0.05 | 50 | 0.05 | 0.15 | 0 | 0.05 | 50 | 0.2 | 52 | 30 | 51 | 61 | 54 | 54 |
| **27-May-97** | 2 | 49 | 0.05 | 50 | 0.2 | 0.15 | 0.05 | 0.05 | 50 | 0.15 | 52 | 17 | 50 | 60 | 54 | 54 |
| **14-Aug-97** | 10 | 51 | 0.1 | 51 | 4.9 | 33 | 0 | 0.1 | 51 | 0.05 | 53 | 0.9 | 52 | 63 | 55 | 55 |
| **30-Sep-97** | 19 | 52 | 0 | 52 | 4.1 | 0 | 0 | 0 | 52 | 0 | 52 | 0 | 52 | 14 | 41 | 46 |
| **18-Nov-97** | n/a | 41 | 0 | 62 | 4.95 | 0 | 0 | 0 | 59 | 0 | 57 | 0 | 50 | 19 | 49 | 44 |



*Gas concentrations are measured in per cent volume in air*

# Table E1. Gas Concentrations Readings – Landfill Monitors

| DATE | 1-I Waste % Vol | 51-I Waste % Vol | 51-II Outwash % Vol | 52-I Outwash % Vol | 55-I Outwash % Vol | 56-I Outwash % Vol | 57-I Outwash % Vol | 58-I Outwash % Vol | 59-I Waste % Vol | 61-I Outwash % Vol | 62-I Waste % Vol | 63-I Outwash % Vol | 64-I Waste % Vol | 65-I Waste % Vol | 66-I Outwash % Vol | 67-I Waste % Vol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **26-Jan-98** | n/a | 50 | 0 | 51 | 0.95 | 0 | 0 | 0 | 51 | 0 | 52 | 1.65 | 52 | 60 | 55 | 55 |
| **20-Mar-98** | n/a | 51 | 0 | 51 | 1 | 12 | 0.15 | 0 | 50 | 0 | 53 | 3.85 | 51 | 63 | 54 | 54 |
| **27-May-98** | n/a | 45 | 0 | 41 | 0 | 2 | 0 | 0 | 32 | 0 | 23 | 2.3 | 41 | 39 | 51 | 44 |
| **16-Sep-98** | n/a | 55 | 0 | 57 | 0.05 | 1 | 0 | 0 | 27 | 0 | 47 | 0 | 47 | 41 | 31 | 53 |
| **21-Oct-98** | n/a | 65 | 0 | 62 | 0 | 3 | 0 | 0 | 46 | 0 | 49 | 0 | 41 | 39 | 29 | 55 |
| **10-Dec-98** | n/a | 66 | 0.05 | 55 | 0 | 0.05 | 0 | 0 | 39 | 0 | 50 | 0 | 55 | 37 | 25 | 49 |
| **12-Jan-99** | n/a | 35 | 0 | 22 | 3.75 | 0 | 0 | 0 | 45 | 0 | 39 | 0 | 38 | 25 | 41 | 37 |
| **16-Feb-99** | n/a | 36 | 0 | 25 | 2.65 | 0 | 0 | 0 | 33 | 0 | 44 | 0 | 34 | 15 | 27 | 32 |
| **18-Mar-99** | n/a | 49 | 0 | 51 | 25 | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 49 | 34 | 32 | 51 |
| **13-Apr-99** | n/a | 63 | 0 | 98 | 1.65 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 57 | 55 | 29 | 32 |
| **20-May-99** | n/a | 55 | 0 | 88 | 1.45 | 0 | 0 | 0 | 32 | 0 | 19 | 0 | 45 | 32 | 28 | 31 |
| **16-Jun-99** | n/a | 51 | 0 | 61 | 0.75 | 0 | 0.05 | 0 | 29 | 0 | 18 | 0 | 29 | 59 | 37 | 29 |
| **24-Jul-99** | n/a | 65 | 0 | 74 | 8 | 0 | 0 | 0 | 19 | 0 | 17 | 0 | 24 | 36 | 28 | 34 |
| **18-Aug-99** | n/a | 62 | 0 | 88 | 0.2 | 0 | 0 | 0 | 15 | 0 | 21 | 0 | 21 | 29 | 29 | 27 |
| **21-Sep-99** | n/a | 51 | 0 | 65 | 0.2 | 0 | 0 | 0 | 21 | 0 | 32 | 0 | 14 | 27 | 37 | 41 |
| **14-Oct-99** | n/a | 56 | 0 | 62 | 0.1 | 0 | 0 | 0 | 19 | 0 | 41 | 0 | 12 | 24 | 41 | 37 |
| **23-Nov-99** | n/a | 45 | 0 | 51 | 0.1 | 0 | 0 | 0 | 15 | 0 | 37 | 0 | 11 | 19 | 20 | 47 |
| **27-Jan-00** | n/a | 47 | 0 | 55 | 0.05 | 0 | 0 | 0 | 12 | 0 | 26 | 0 | 9 | 12 | 15 | 34 |
| **16-Feb-00** | n/a | 41 | 0 | 59 | 0.05 | 0 | 0 | 0 | 15 | 0 | 19 | 0 | 7 | 15 | 14 | 24 |
| **22-Mar-00** | n/a | 47 | 0.05 | 31 | 14 | 24 | 0.05 | 17 | 46 | 1.65 | 62 | 19 | 47 | 59 | 59 | 47 |
| **18-Apr-00** | n/a | 42 | 0.05 | 34 | 17 | 30 | 0 | 14 | 32 | 1.7 | 39 | 23 | 54 | 51 | 49 | 62 |
| **21-Jun-00** | n/a | 32 | 0.2 | 55 | 21 | 13 | 0 | 24 | 59 | 2.15 | 48 | 17 | 39 | 41 | 56 | 58 |
| **18-Jul-00** | n/a | 59 | 0.1 | 47 | 13 | 14 | 0.6 | 19 | 43 | 3.55 | 43 | 27 | 54 | 45 | 39 | 42 |
| **24-Aug-00** | n/a | 55 | 0.05 | 62 | 19 | 24 | 0.45 | 27 | 47 | 23 | 59 | 22 | 61 | 54 | 55 | 47 |
| **19-Oct-00** | n/a | 31 | 0.1 | 41 | 4.45 | 4.9 | 0.05 | 16 | 61 | 3.05 | 47 | 20 | 43 | 47 | 49 | 61 |
| **14-Nov-00** | n/a | 51 | 0.1 | 50 | 9 | 20 | 0.05 | 22 | 50 | 2.3 | 51 | 21 | 51 | 54 | 54 | 53 |
| **15-Dec-00** | n/a | 43 | 0.1 | 46 | 22 | 26 | 0 | 21 | 65 | 1.75 | 45 | 16 | 47 | 33 | 47 | 56 |
| **21-Feb-01** | n/a | 40 | 0.05 | 44 | 29 | 21 | 0 | 18 | 45 | 1.6 | 33 | 12 | 33 | 29 | 41 | 45 |
| **03-Aug-01** | n/a | 61 | 0.01 | 51 | 31 | 32 | 0.01 | 26 | 42 | 1.45 | 39 | 19 | 57 | 31 | 43 | 51 |
| **14-Jan-02** | n/a | 32 | 0.01 | 64 | 71 | 27 | 0.01 | 36 | 64 | 1.1 | 89 | 17 | 45 | 22 | 42 | 44 |
| **19-Mar-02** | n/a | 57 | 0.05 | 44 | 56 | 19 | 0.05 | 17 | 49 | 2.05 | 39 | 18 | 37 | 45 | 37 | 54 |
| **15-May-02** | n/a | 52 | 0.01 | 32 | 29 | 25 | 0.05 | 25 | 37 | 1.55 | 31 | 3 | 51 | 1.15 | 43 | 41 |
| **16-Jul-02** | n/a | 40 | 0 | 41 | 21 | 21 | 0 | 19 | 1.1 | 1.1 | 22 | 0 | 31 | 2.35 | 32 | 38 |
| **12-Sep-02** | n/a | 37 | 0.05 | 1.15 | 35 | 29 | 0.05 | 17 | 51 | 2.7 | 46 | 5 | 41 | 34 | 46 | 51 |
| **18-Nov-02** | n/a | 43 | 0 | 52 | 51 | 11 | 0 | 22 | 47 | 1.9 | 1.4 | 0.6 | 36 | 31 | 29 | 2.15 |
| **13-Feb-03** | n/a | 34 | 0.1 | 45 | 44 | 10 | 0.05 | 20 | 34 | 1.25 | 26 | 0.45 | 23 | 1.15 | 21 | 41 |
| **13-Aug-03** | n/a | 61 | 0.05 | 46 | 25 | 31 | 0.1 | 0.1 | 71 | 1.05 | 37 | 0.45 | 37 | 1.35 | 32 | 47 |
| **20-Jul-04** | n/a | 17.4 | 19.5 | 59.7 | 44.2 | 7.4 | 0.3 | 0.8 | 57.4 | 49.8 | 62.3 | 37.4 | 58.3 | 1 | 0.7 | 1.5 |
| **17-Sep-04** | n/a | 7.8 | 11.3 | 64.2 | 47.2 | 10 | 1.1 | 2.3 | 59.5 | 56.2 | 61.2 | 39.6 | 61.2 | 3.4 | 1.3 | 2.1 |
| **14-Dec-04** | n/a | 0 | 0 | 63.2 | 56.4 | 8 | 0 | 0 | 63.2 | 58.1 | 64.5 | 33.8 | 63 | 0 | 0.2 | 0 |
| **24-Feb-05** | n/a | 42.1 | 46.5 | 48.5 | 51.2 | 22 | 0 | 0 | 50.3 | 0 | 19.5 | 5.1 | 53 | 0 | 43.2 | 2 |
| **28-Jul-05** | n/a | 48.9 | 47.2 | 41.3 | 34.7 | 27.6 | 1.1 | 0.4 | 49.6 | 0.9 | 15.7 | 2.3 | 21.9 | 1.8 | 43.5 | 3.8 |
| **10-Feb-06** | n/a | 29.4 | 8.2 | 54.3 | 18.7 | 0.2 | 0 | 0.9 | 10.9 | 0.1 | 3.2 | 0 | 58.5 | 0 | 0.9 | 0.4 |
| **06-Sep-06** | n/a | 34.4 | 0 | 59.8 | 21.9 | 0 | 0 | 1.5 | 6.5 | 0.2 | 5.1 | 0 | 60.2 | 0 | 1.2 | 0 |
| **06-Feb-07** | n/a | 12.3 | 0 | 41.2 | 17.3 | 0.2 | 0 | 0.9 | 5.3 | 0.4 | 2.1 | 0 | 53.2 | 0 | 0.3 | 0.8 |
| **10-Aug-07** | n/a | 0 | 0 | 23.3 | 32.1 | 0 | 0 | 0 | 2.3 | 0 | 1.2 | 0 | 12.2 | 0 | 0 | 0.3 |
| **12-Mar-08** | n/a | 0.8 | 0 | 31.5 | 10.2 | 1.5 | 0 | 0 | 4.2 | 1.1 | 1.1 | 0 | 47.6 | 0 | 0.2 | 3.1 |
| **17-Sep-08** | n/a | 0.4 | 0 | 12.1 | 4.8 | 1.9 | 0 | 0 | 2.4 | 0.8 | 0.9 | 0 | 43.1 | 0 | 0 | 2.1 |
| **24-Dec-09** | 0 | 0.4 | 0 | 12.1 | 4.8 | 1.9 | 0 | 0 | 2.4 | 0.8 | 0.9 | 0 | 41 | 0 | 0 | 2.1 |
| **06-Mar-10** | 0 | 12.3 | 0 | 41.2 | 0 | 0 | 0 | 0.9 | 5.3 | 0.4 | 2.1 | 0 | 53.2 | 0 | 0.3 | 0.8 |
| **10-Aug-10** | 0.4 | 30.1 | 1.0 | 8.9 | 2.1 | 0.1 | 0 | 0.5 | 1.5 | 0 | 3.7 | 0 | 0.5 | 0 | 0.2 | 0 |



*Gas concentrations are measured in per cent volume in air*

## Table E2. Gas Concentrations in C and D Series Monitors – West Side of Site

| Date | C1-II % vol | C2-II % vol | C3-I % vol | D1-I % vol | D2-I % vol | Date | C1-II % vol | C2-II % vol | C3-I % vol | D1-I % vol | D2-I % vol |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 10-Feb-93 | 0.25 | 17 | 0 | 18 | 18 | 30-Apr-97 | 0 | 0 | 0 | 1 | 29 |
| 26-Mar-93 | 0 | 1.9 | 0 | 5 | 9 | 27-May-97 | 0 | 0 | 0 | 3.8 | 4.2 |
| 29-Apr-93 | 0 | 0 | 0 | 2.25 | 8 | 14-Aug-97 | 0 | 0 | 0.05 | 11 | 29 |
| 21-May-93 | 0 | 0 | 0 | 1.6 | 2.7 | 30-Sep-97 | 0 | 0 | 0 | 0.25 | 0 |
| 21-Jun-93 | 0 | 0 | 0 | 3.45 | 2.65 | 18-Nov-97 | 0 | 0 | 0 | 0.15 | 0 |
| 16-Jul-93 | 0 | 0 | 0 | 16 | 6 | 26-Jan-98 | 0 | 0 | 0 | 31 | 25 |
| 10-Aug-93 | 0 | 0 | 0 | 16 | 8 | 20-Mar-98 | 0 | 0 | 0 | 16 | 19 |
| 16-Sep-93 | 0 | 0 | 0 | 15 | 14 | 27-May-98 | 0 | 0 | 0 | 8 | 0.85 |
| 13-Oct-93 | 0 | 0 | 0 | 18 | 10 | 16-Sep-98 | 0 | 0 | 0 | 9 | 0.85 |
| 24-Nov-93 | 0 | 0 | 0 | 13 | 10 | 21-Oct-98 | 0 | 0 | 0 | 15 | 1 |
| 17-Dec-93 | 0 | 0 | 0 | 20 | 3.6 | 10-Dec-98 | 0 | 0 | 0 | 6 | 0.1 |
| 19-Jan-94 | 0 | 0 | 0 | 6 | 3.25 | 12-Jan-99 | 0 | 0 | 0 | 0.05 | 0 |
| 11-Feb-94 | 0 | 6 | 0 | 12 | 6 | 16-Feb-99 | 0 | 0 | 0 | 0.1 | 0 |
| 10-Mar-94 | 0 | 0 | 0 | 0 | 0.6 | 18-Mar-99 | 0 | 0 | 0 | 0.05 | 0 |
| 19-Apr-94 | 0 | 0 | 0 | 0.8 | 0.25 | 13-Apr-99 | 0 | 0 | 0 | 0.1 | 0 |
| 12-May-94 | 0 | 0 | 0 | 1.25 | 1.2 | 20-May-99 | 0 | 0 | 0 | 0.05 | 0.1 |
| 23-Jun-94 | 0 | 0 | 5 | 1.5 | 1.05 | 16-Jun-99 | 0 | 0 | 0 | 0 | 0 |
| 12-Jul-94 | 0 | 0 | 0 | 1 | 0.5 | 24-Jul-99 | 0 | 0 | 0 | 0 | 0 |
| 10-Aug-94 | 0 | 0 | 0 | 2.6 | 1.1 | 18-Aug-99 | 0 | 0 | 0 | 0 | 0 |
| 16-Sep-94 | 0 | 0 | 0 | 2.25 | 0.9 | 21-Sep-99 | 0 | 0 | 0 | 0 | 0 |
| 12-Oct-94 | 0 | 0 | 0 | 0.85 | 0 | 14-Oct-99 | 0 | 0 | 0 | 0 | 0 |
| 11-Nov-94 | 0 | 0 | 0 | 0.8 | 0 | 23-Nov-99 | 0 | 0 | 0 | 0 | 0 |
| 14-Dec-94 | 0 | 0 | 0 | 1.4 | 0.8 | 27-Jan-00 | 0 | 0 | 0 | 0 | 0 |
| 17-Jan-95 | 0 | 0 | 0 | 0.2 | 0 | 16-Feb-00 | 0 | 0 | 0 | 0 | 0 |
| 09-Feb-95 | 0 | 0 | 0 | 0.3 | 0 | 22-Mar-00 | 0 | 0 | 0 | 0.15 | 3 |
| 10-Mar-95 | 0 | 0 | 0.6 | 11 | 18 | 18-Apr-00 | 0 | 0 | 0 | 0.1 | 3 |
| 13-Apr-95 | 0 | 0 | 0.9 | 12 | 15 | 21-Jun-00 | 0 | 0 | 0 | 0.1 | 2.75 |
| 18-May-95 | 0 | 0 | 0 | 15 | 12 | 18-Jul-00 | 0 | 0 | 0 | 0.05 | 9 |
| 30-Jun-95 | 0 | 0 | 0 | 0.9 | 1.65 | 24-Aug-00 | 0 | 0 | 0 | 0.1 | 2.1 |
| 20-Jul-95 | 0 | 0 | 0 | 0.55 | 1.05 | 19-Oct-00 | 0 | 0 | 0 | 0.15 | 4.05 |
| 21-Sep-95 | 0 | 0 | 0 | 0.4 | 0.25 | 14-Nov-00 | 0 | 0 | 0 | 0.1 | 8 |
| 18-Oct-95 | 0 | 0 | 0 | 0 | 0.75 | 15-Dec-00 | 0 | 0 | 0 | 0.05 | 3.85 |
| 22-Nov-95 | 0 | 0 | 0 | 4 | 0.85 | 21-Feb-01 | 0 | 0 | 0 | 0.05 | 0 |
| 21-Dec-95 | 0 | 0 | 0 | 3.3 | 31 | 11-Apr-01 | 0 | 0 | 0 | 0 | 0.4 |
| 09-Jan-96 | 0 | 0 | 0 | 12 | 33 | 20-Jun-01 | 0 | 0 | 0 | 0 | 0.15 |
| 08-Feb-96 | 3.3 | 0 |  | 22 | 35 | 03-Aug-01 | 0 | 0 | 0 | 0 | 0.05 |
| 08-Mar-96 | 0.15 | 19 | 0 | 16 | 18 | 15-Oct-01 | 0 | 0 | 0 | 0 | 0.05 |
| 18-Apr-96 | 0.1 | 2.4 | 0 | 17 | 1.6 | 04-Dec-01 | 0 | 0 | 0 | 0 | 0.05 |
| 16-May-96 | 0 | 0.05 | 0.05 | 9 | 32 | 14-Jan-02 | 0 | 0 | 0 | 0 | 0.1 |
| 16-Jul-96 | 0 | 0 | 0 | 25 | 30 | 19-Mar-02 | 0 | 0 | 0 | 0 | 0 |
| 26-Sep-96 | 0 | 0 | 0 | 16 | 37 | 15-May-02 | 0 | 0 | 0 | 0 | 0.2 |
| 01-Nov-96 | 0 | 0.05 | 0 | 16 | 30 | 16-Jul-02 | 0 | 0 | 0 | 0 | 0.1 |
| 28-Nov-96 | 0 | 0 | 0.85 | 14 | 17 | 12-Sep-02 | 0 | 0 | 0 | 0.05 | 0.05 |
| 13-Dec-96 | 0 | 0.05 | 0.05 | 4.25 | 22 | 18-Nov-02 | 0 | 0 | 0 | 0 | 0.05 |
| 27-Jan-97 | 0 | 0.05 | 0.1 | 4.15 | 18 | 13-Feb-03 | 0 | 0 | 0 | 0.05 | 0.05 |
| 11-Feb-97 | 0 | 0 | 0 | 29 | 12 | 17-Apr-03 | 0 | 0 | 0 | 0 | 0.05 |
| 13-Mar-97 | 0 | 0 | 0 | 15 | 6 | 19-Jun-03 | 0 | 0 | 0 | 0.05 | 0.05 |
| 13-Aug-03 | 0 | 0 | 0 | 0 | 0.05 |  |  |  |  |  |  |
| 21-Oct-03 | 0 | 0 | 0 | 0.05 | 0.05 |  |  |  |  |  |  |
| 20-Jul-04 | 0 | 0 | 0 | 1.7 | 5.2 |  |  |  |  |  |  |
| 17-Sep-04 | 0 | 0 | 0 | 2.3 | 9.3 |  |  |  |  |  |  |
| 14-Dec-04 | 0 | 0 | 0 | 0 | 7.2 |  |  |  |  |  |  |
| 24-Feb-05 | 0 | 0 | 0 | 0 | 3.1 |  |  |  |  |  |  |
| 28-Jul-05 | 0 | 0 | 0 | 0.9 | 2.1 |  |  |  |  |  |  |
| 10-Feb-06 | 0 | 0 | 0 | 0 | 0.2 |  |  |  |  |  |  |
| 06-Sep-06 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |  |  |
| 06-Feb-07 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |  |  |
| 10-Aug-07 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |  |  |
| 12-Mar-08 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |  |  |
| 17-Sep-08 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |  |  |
| 24-Dec-09 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |  |  |
| 06-Mar-10 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |  |  |
| 10-Aug-10 | 0 | 0 | 0 | 0.1 | 0 |  |  |  |  |  |  |



*Gas Concentrations are measured in per cent by volume in air*

## Table E3. Gas Concentrations in C and D Series Monitors – South Side of Site

| Date | C5-I % VOI | C6-II % VOI | C7-I % VOI | C8-I % VOI | C9-II % VOI | C10-II % VOI | C11-II % VOI | C12-I % VOI | C13-I % VOI | C14-I % VOI | D3-I % VOI | D4-I % VOI | D5-I % VOI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **10-Feb-93** | 4.45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | n/a | 13 | 0 | n/a |
| **26-Mar-93** | 16 | 0.4 | 0.8 | 0 | 0 | 0 | 2.9 | 0 | 1.95 | n/a | 5 | 0 | n/a |
| **29-Apr-93** | 6 | 0 | 2.6 | 0.5 | 0 | 0 | 0 | 0 | 0 | n/a | 5 | 0 | n/a |
| **21-May-93** | 6 | 0 | 2.6 | 0 | 0.15 | 0 | 0 | 0 | 0.2 | n/a | 4.1 | 0 | n/a |
| **21-Jun-93** | 6 | 0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0.25 | n/a | 5 | 0 | n/a |
| **16-Jul-93** | 40 | 25 | 20 | 5 | 15 | 0.05 | 0 | 0 | 15 | n/a | 20 | 0 | n/a |
| **10-Aug-93** | 35 | 10 | 40 | 3.45 | 6 | 0 | 0 | 0.25 | 6 | n/a | 30 | 0 | n/a |
| **16-Sep-93** | 30 | 4.25 | 25 | 2.45 | 4.05 | 0 | 0 | 0.15 | 3.15 | n/a | 35 | 0 | n/a |
| **13-Oct-93** | 25 | 3.6 | 30 | 1.6 | 6 | 0 | 0.05 | 0.25 | 0.65 | n/a | 20 | 0 | n/a |
| **24-Nov-93** | 20 | 2.9 | 22 | 2 | 8 | 0 | 0 | 0.6 | 0.1 | n/a | 15 | 0.7 | n/a |
| **17-Dec-93** | 13 | 3.25 | 18 | 1.9 | 6 | 0 | 0 | 0.2 | 0 | n/a | 20 | 0 | n/a |
| **19-Jan-94** | 13 | 2.6 | 15 | 0.85 | 5 | 0 | 0 | 0.1 | 0 | n/a | 14 | 0 | n/a |
| **11-Feb-94** | 8 | 1.15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 3.2 | 0 | n/a |
| **10-Mar-94** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 4.15 | 0 | n/a |
| **19-Apr-94** | 0.25 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 1.9 | 0 | n/a |
| **12-May-94** | 0 | 0.6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.85 | 0 | n/a |
| **23-Jun-94** | 0 | 0 | 2.15 | 0 | 0.55 | 0 | 0 | 0 | 0.1 | n/a | 0 | 0 | n/a |
| **12-Jul-94** | 0.3 | 0 | 2.4 | 0 | 0 | 0 | 0 | 0 | 0.05 | n/a | 0 | 0 | n/a |
| **10-Aug-94** | 0 | 0 | 2.45 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 2.05 | 0 | n/a |
| **16-Sep-94** | 0 | 0 | 0.25 | 0 | 0.05 | 0 | 0 | 0 | 0 | n/a | 0.05 | 0 | n/a |
| **12-Oct-94** | 0 | 0 | 0.85 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 3.15 | 0 | n/a |
| **11-Nov-94** | 0.05 | 0 | 0.75 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 1.9 | 0 | n/a |
| **14-Dec-94** | 0 | 0 | 1.2 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 1 | 0.25 | n/a |
| **17-Jan-95** | 0 | 0 | 0.55 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | n/a |
| **09-Feb-95** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | n/a |
| **10-Mar-95** | 0 | 0 | 1.5 | 12 | 0 | 0 | 0 | 0.1 | 0 | n/a | 0.05 | 0.15 | n/a |
| **13-Apr-95** | 0 | 0 | 1.6 | 11 | 0 | 0 | 0 | 0 | 0 | n/a | 0.8 | 0 | n/a |
| **18-May-95** | 1.15 | 0.1 | 18 | 0.65 | 0 | 0 | 0 | 0 | 0.2 | n/a | 18 | 0.15 | n/a |
| **30-Jun-95** | 0 | 0 | 0.65 | 0.25 | 0.3 | 0 | 0 | 0 | 0 | n/a | 2.45 | 1.6 | n/a |
| **20-Jul-95** | 0 | 0 | 0.4 | 0.15 | 0.1 | 0 | 0 | 0 | 0 | 0 | 1.55 | 0.55 | 0.75 |
| **21-Sep-95** | 0.5 | 0 | 1.1 | 0.85 | 0 | 0.9 | 0 | 0 | 0 | 0 | 39 | 1.05 | 0.5 |
| **18-Oct-95** | 0.8 | 0 | 1.5 | 0.75 | 0 | 1.2 | 0 | 0 | 0 | 0 | 34 | 1.75 | 2.2 |
| **22-Nov-95** | 2.75 | 2 | 1.4 | 0.05 | 0.15 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1.45 |
| **21-Dec-95** | 4.25 | 0.05 | 27 | 0 | 8 | 0.15 | 0 | 0 | 0.75 | 0 | 36 | 0 | 0 |
| **09-Jan-96** | 3 | 0 | 20 | 1.65 | 0.05 | 0.05 | 0.1 | 0 | 0 | 0 | 46 | 0 | 1.6 |
| **08-Feb-96** | 8 | 32 | 34 | 1.35 | 6 | 0.05 | 0 | 0 | 0.05 | 0 | 37 | 0.25 | 3.85 |
| **08-Mar-96** | 0 | 0 | 39 | 0.1 | 0.75 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 2.6 |
| **18-Apr-96** | 0 | 0 | 28 | 0.05 | 0 | 0.05 | 0 | 0 | 0 | 0 | 4 | 0 | 5.3 |
| **16-May-96** | 0 | 0 | 38 | 0.05 | 2.35 | 0 | 0 | 0 | 0.05 | 0 | 22 | 0 | 0.7 |
| **16-Jul-96** | 2.8 | 0.45 | 1.65 | 4.95 | 20 | 0 | 3.15 | 0 | 0.45 | 0 | 8 | 0 | 23 |
| **26-Sep-96** | 11 | 2.3 | 39 | 2.85 | 10 | 0 | 0.75 | 0.05 | 2.2 | 0 | 44 | 0 | 38 |
| **01-Nov-96** | 15 | 3.55 | 29 | 0.3 | 11 | 0.15 | 0.05 | 0 | 2.5 | 0 | 33 | 0.05 | 25 |

## Table E3. Gas Concentrations in C and D Series Monitors – South Side of Site

| Date | C5-I % VOI | C6-II % VOI | C7-I % VOI | C8-I % VOI | C9-II % VOI | C10-II % VOI | C11-II % VOI | C12-I % VOI | C13-I % VOI | C14-I % VOI | D3-I % VOI | D4-I % VOI | D5-I % VOI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28-Nov-96 | 0 | 0 | 1.75 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 13-Dec-96 | 3.25 | 0.05 | 33 | 0.25 | 3.25 | 0 | 0.25 | 0 | 2.1 | 0 | 36 | 0 | 40 |
| 27-Jan-97 | 3.05 | 0.05 | 39 | 0.3 | 3.15 | 0 | 0.45 | 0 | 3.05 | 0 | 41 | 0.05 | 37 |
| 11-Feb-97 | 16 | 0.5 | 36 | 0.15 | 9 | 0 | 0.1 | 0 | 2.5 | 0 | 0.05 | 0.05 | 29 |
| 13-Mar-97 | 11 | 0.75 | 23 | 0.25 | 0 | 0 | 0.15 | 0 | 3.65 | 0 | 0.35 | 0.05 | 13 |
| 30-Apr-97 | 10 | 0 | 33 | 4.95 | 2.65 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 29 |
| 27-May-97 | 0 | 0 | 15 | 4.3 | 3.6 | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 22 |
| 14-Aug-97 | 0.05 | 0 | 0.4 | 0 | 18 | 0 | 0 | 0 | 0 | 0.35 | 28 | 27 | 48 |
| 30-Sep-97 | 0 | 0 | 5.3 | 0 | 17 | 0 | 2.6 | 0 | 0 | 0.65 | 4.85 | 0 | 43 |
| 18-Nov-97 | 0 | 0 | 5.5 | 0 | 14 | 0 | 0.6 | 0 | 0 | 0.45 | 4.55 | 0 | 39 |
| 26-Jan-98 | 0 | 0 | 9 | 0.3 | 16 | 0 | 0.35 | 0 | 1.65 | 0 | 31 | 0 | 21 |
| 20-Mar-98 | 0 | 0 | 3.25 | 0 | 2.25 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 39 |
| 27-May-98 | 0 | 0 | 2.75 | 0 | 1.6 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 22 |
| 16-Sep-98 | 0.1 | 0 | 1.15 | 0 | 2.05 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 40 |
| 21-Oct-98 | 0 | 0 | 0.6 | 0 | 1.05 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 32 |
| 10-Dec-98 | 0 | 0 | 0.4 | 0 | 0.75 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 27 |
| 12-Jan-99 | 0 | 0 | 3 | 0 | 11 | 0 | 0.45 | 0 | 0 | 0.35 | 4 | 0 | 49 |
| 16-Feb-99 | 0 | 0 | 1.6 | 0 | 0.6 | 0 | 0.05 | 0 | 0 | 0.05 | 2.25 | 0 | 33 |
| 18-Mar-99 | 0 | 0 | 3.8 | 0 | 25 | 0 | 0 | 0 | 0 | 0.1 | 27 | 0 | 41 |
| 13-Apr-99 | 0 | 0 | 2.9 | 0 | 17 | 0 | 0.05 | 0 | 0 | 0.05 | 14 | 0 | 52 |
| 20-May-99 | 0 | 0 | 2.25 | 0 | 15 | 0 | 0.1 | 0 | 0 | 0 | 12 | 0 | 49 |
| 16-Jun-99 | 0 | 0 | 1.9 | 0 | 12 | 0 | 0.05 | 0 | 0 | 0 | 10 | 0 | 15 |
| 24-Jul-99 | 0 | 0 | 1.55 | 0 | 10 | 0 | 0.15 | 0 | 0 | 0 | 9 | 0 | 12 |
| 18-Aug-99 | 0 | 0 | 1.95 | 0 | 0.1 | 0 | 0.05 | 0 | 0 | 0 | 22 | 0 | 16 |
| 21-Sep-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 23 |
| 14-Oct-99 | 0 | 0 | 0.05 | 0 | 0 | 0 | 0.05 | 0 | 0 | 0 | 11 | 0 | 18 |
| 23-Nov-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | 0 | 16 | 0 | 11 |
| 27-Jan-00 | 0 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 9 |
| 16-Feb-00 | 0 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 5 |
| 22-Mar-00 | 0 | 0 | 1.45 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0.05 | 0 | 22 |
| 18-Apr-00 | 0 | 0 | 3.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.15 | 0.4 | 0 | 24 |
| 21-Jun-00 | 0.05 | 0 | 2.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 2.75 |
| 18-Jul-00 | 0.05 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0.05 | 0.05 | 20 |
| 24-Aug-00 | 0 | 0 | 3.45 | 0 | 0 | 0 | 0 | 0 | 0 | 0.45 | 0 | 0.05 | 4 |
| 19-Oct-00 | 0 | 0 | 2.45 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 | 21 |
| 14-Nov-00 | 0.05 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0.75 | 0 | 0 | 29 |
| 15-Dec-00 | 0.05 | 0 | 2.45 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 33 |
| 21-Feb-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | 22 |
| 11-Apr-01 | 0.05 | 0 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0.05 | 0.1 | 0 | 0 | 19 |
| 20-Jun-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 03-Aug-01 | 0 | 0 | 0.95 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | 26 |
| 15-Oct-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0.05 | 0.1 | 20 |

## Table E3. Gas Concentrations in C and D Series Monitors – South Side of Site

| Date | C5-I % VOI | C6-II % VOI | C7-I % VOI | C8-I % VOI | C9-II % VOI | C10-II % VOI | C11-II % VOI | C12-I % VOI | C13-I % VOI | C14-I % VOI | D3-I % VOI | D4-I % VOI | D5-I % VOI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 04-Dec-01 | 0.05 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 17 |
| 14-Jan-02 | 0 | 0 | 0.75 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0.2 | 0.05 | 0 | 32 |
| 19-Mar-02 | 0 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 15-May-02 | 0 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0.05 | 14 |
| 16-Jul-02 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 12-Sep-02 | 0 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | 0 | 19 |
| 18-Nov-02 | 0.05 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0.1 | 0.05 | 0 | 22 |
| 13-Feb-03 | 0.05 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0.05 | 0.05 | 0.05 | 10 |
| 17-Apr-03 | 0 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0.1 | 0.05 | 0 | 23 |
| 19-Jun-03 | 0.05 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0.15 | 0.05 | 0 | 18 |
| 13-Aug-03 | 0 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.05 | 0 | 9 |
| 21-Oct-03 | 0.05 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0.05 | 0.05 | 0 | 22 |
| 20-Jul-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18.4 | 0.8 | 2.8 |
| 17-Sep-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23.4 | 1.1 | 2.1 |
| 14-Dec-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27.8 | 1.6 | 3.2 |
| 24-Feb-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.4 | 1.1 | 1.5 |
| 28-Jul-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0.8 | 1.3 |
| 10-Feb-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12.3 | 0.1 | 0.6 |
| 06-Sep-06 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15.1 | 0 | 0 |
| 06-Feb-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11.2 | 0.2 | 0.4 |
| 10-Aug-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0.8 |
| 12-Mar-08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0.9 |
| 17-Sep-08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0.2 | 0.7 |
| 24-Dec-09 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0.2 | 0.7 |
| 06-Mar-10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11.2 | 0.2 | 0.4 |
| 10-Aug-10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0.2 | 0.6 |

## Table E4. Gas Concentration Readings – Property Boundary Monitors

| Date | 2-II % vol | 4-III % vol | 5-II % vol | 12-III % vol | 14-III % vol | 15-V % vol | 16-IV % vol | 16-V % vol | 19-IV % vol | 20-IV % vol |
|---|---|---|---|---|---|---|---|---|---|---|
| 26-Jan-98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-Mar-98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16-Sep-98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21-Oct-98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10-Dec-98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12-Jan-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16-Feb-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18-Mar-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13-Apr-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-May-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16-Jun-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24-Jul-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18-Aug-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21-Sep-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14-Oct-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23-Nov-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27-Jan-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16-Feb-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22-Mar-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18-Apr-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21-Jun-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18-Jul-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24-Aug-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19-Oct-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14-Nov-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15-Dec-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21-Feb-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11-Apr-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-Jun-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03-Aug-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15-Oct-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04-Dec-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14-Jan-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19-Mar-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15-May-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16-Jul-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12-Sep-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18-Nov-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13-Feb-03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17-Apr-03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19-Jun-03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13-Aug-03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21-Oct-03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-Jul-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17-Sep-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14-Dec-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24-Feb-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28-Jul-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10-Feb-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06-Sep-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06-Feb-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10-Aug-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12-Mar-08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17-Sep-08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24-Dec-09 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06-Mar-10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10-Aug-10 | 0 | 0 | 0.2 | 0 | 0 | 0.1 | 0 | 0 | 0 | 1.2 |

*Gas concentrations are measured in per cent volume in air*

# Table E5. Gas Concentration and Pressure Measurements – GP Series Probes

| Date | Probe | 97-1 | Probe | 97-2 | Probe | 97-3 | Probe | 97-4 | Probe | 97-5 | Probe | 00-06 | Probe | 00-07 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *(SW corner of Site)* | | *(N of Main Pump Station)* | | *(NE of Storage Bldg)* | | *(NE of Main Office)* | | *(N of maintenance Shed)* | | *(Flower bed adjacent to scale house)* | | *(Near Main PS - replaces 97-2))* | |
| | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* |
| **06-Aug-97** | 0 | 0 | 56 | 0 | 12 | 0 | 45 | 0 | 0.03 | 0 | | | | |
| **11-Aug-97** | 0.01 | 0 | 55 | 0.1 | 10 | 0.1 | 39 | 0 | 0.21 | 0 | | | | |
| **21-Aug-97** | 0 | 0 | 54 | 0.1 | 21 | 0.1 | 43 | 0 | 0.7 | 0 | | | | |
| **27-Aug-97** | 0.02 | 0 | 53 | 0.1 | 14 | 0.1 | 43 | 0 | 0.6 | 0 | | | | |
| **03-Sep-97** | 0.015 | 0 | 54 | 0 | 15 | 0 | 43 | 0 | 0.7 | 0 | | | | |
| **08-Sep-97** | 0.025 | 0 | 54 | 0.1 | 17 | 0.1 | 43 | 0 | 0.27 | 0 | | | | |
| **15-Sep-97** | 0.03 | 0 | 51 | 0.1 | 14 | 0.1 | 44 | 0 | 2.6 | 0 | | | | |
| **30-Sep-97** | 0.01 | 0 | 54 | 0.1 | 11 | 0.1 | 43 | 0 | 0.55 | 0 | | | | |
| **26-Sep-97** | 0.01 | 0 | 52 | 0 | 13 | 0.1 | 36 | 0 | 1.45 | 0 | | | | |
| **08-Oct-97** | 0 | 0 | 54 | 0.1 | 12 | 0 | 44 | 0 | 0.43 | 0 | | | | |
| **21-Oct-97** | 0 | 0 | 55 | 0.1 | 14 | 0 | 45 | 0 | 0.23 | 0 | | | | |
| **29-Oct-97** | 0 | 0 | 55 | 0 | 15 | 0 | 45 | 0 | 0.05 | 0 | | | | |
| **04-Nov-97** | 0 | 0 | 54 | 0 | 11 | 0 | 45 | 0 | 0.1 | 0 | | | | |
| **26-Jan-98** | 0.01 | 0 | 53 | 0 | 17 | 0 | 43 | 0 | 0 | 0 | | | | |
| **20-Mar-98** | 0.05 | 0 | 53 | 0.1 | 12 | 0.1 | 42 | 0 | 0.23 | 0 | | | | |
| **27-May-98** | 0 | 0 | 52 | 0.1 | 15 | 0.1 | 46 | 0 | 0.26 | 0 | | | | |
| **16-Sep-98** | 0.05 | 0 | 55 | 0.1 | 20 | 0 | 48 | 0 | 0.2 | 0 | | | | |
| **21-Oct-98** | 0.02 | 0 | 55 | 0.1 | 15 | 0.1 | 47 | 0 | 0.36 | 0 | | | | |
| **10-Dec-98** | 0.01 | 0 | 59 | 0.1 | 20 | 0.1 | 49 | 0 | 0.46 | 0 | | | | |
| **12-Jan-99** | 0 | 0 | 51 | 0 | 16 | 0 | 4.4 | 0 | 0.4 | 0 | | | | |
| **16-Feb-99** | 0 | 0 | 54 | 0 | 14 | 0 | 3.6 | 0 | 0.65 | 0 | | | | |
| **18-Mar-99** | 0.01 | 0 | 48 | 0 | 17 | 0 | 42 | 0 | 0.35 | 0 | | | | |
| **13-Apr-99** | 0 | 0 | 49 | 0 | 18 | 0 | 31 | 0 | 0.5 | 0 | | | | |
| **20-May-99** | 0 | 0 | 54 | 0 | 14 | 0 | 5 | 0 | 0.45 | 0 | | | | |
| **16-Jun-99** | 0.02 | 0 | 51 | 0 | 13 | 0 | 22 | 0 | 0.55 | 0 | | | | |
| **15-Jul-99** | 0 | 0 | 53 | 0 | 14 | 0 | 38 | 0 | 0.2 | 0 | | | | |
| **24-Aug-99** | 0 | 0 | 54 | 0 | 13 | 0 | 3.6 | 0 | 0.45 | 0 | | | | |
| **21-Sep-99** | 0 | 0 | 52 | 0 | 15 | 0 | 2.05 | 0 | 0.5 | 0 | | | | |
| **14-Oct-99** | 0 | 0 | 53 | 0 | 17 | 0 | 24 | 0 | 0.4 | 0 | | | | |
| **23-Nov-99** | 0 | 0 | 52 | 0 | 23 | 0 | 6 | 0 | 0.6 | 0 | | | | |
| **27-Jan-00** | 0 | 0 | 0 | 0 | 20 | 0 | 5 | 0 | 0.4 | 0 | | | | |
| **16-Feb-00** | 0 | 0 | 0.05 | 0 | 25 | 0 | 41 | 0 | 0.2 | 0 | | | | |
| **22-Mar-00** | 0 | 0 | 0.05 | 0 | 35 | 0 | 46 | 0 | 0.1 | 0 | | | | |
| **18-Apr-00** | 0 | 0 | 0 | 0 | 42 | 0 | 4.1 | 0 | 0.3 | 0 | | | | |
| **21-Jun-00** | 0 | 0 | 0.05 | 0 | 52 | 0 | 34 | 0 | 0.2 | 0 | | | | |
| **18-Jul-00** | 0 | 0 | 0 | 0 | 34 | 0 | 5.5 | 0 | 0.15 | 0 | | | | |

# Table E5. Gas Concentration and Pressure Measurements – GP Series Probes

| Date | Probe | 97-1 | Probe | 97-2 | Probe | 97-3 | Probe | 97-4 | Probe | 97-5 | Probe | 00-06 | Probe | 00-07 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *(SW corner of Site)* | | *(N of Main Pump Station)* | | *(NE of Storage Bldg)* | | *(NE of Main Office)* | | *(N of maintenance Shed)* | | *(Flower bed adjacent to scale house)* | | *(Near Main PS - replaces 97-2))* | |
| | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* |
| **24-Aug-00** | 0 | 0 | probe decommissioned | | 20 | 0 | 42 | 0 | 0.45 | 0 | | | | |
| **11-Oct-00** | 0 | 0 | and replaced with 00-07 | | 50 | 0 | 46 | 0 | 1.05 | 0 | 47 | 0 | 0 | 0 |
| **12-Oct-00** | 0 | 0 | | | 50 | 0 | 45 | 0 | 0.65 | 0 | 47 | 0 | 0 | 0 |
| **19-Oct-00** | 0 | 0 | | | 39 | 0 | 44 | 0 | 0.4 | 0 | 48 | 0 | 4.85 | 0 |
| **23-Oct-00** | 0 | 0 | | | 50 | 0 | 45 | 0 | 0.1 | 0 | 48 | 0 | 0.55 | 0 |
| **31-Oct-00** | 0 | 0 | | | 51 | 0 | 45 | 0 | 0.05 | 0 | 50 | 0 | 3.7 | 0 |
| **14-Nov-00** | 0 | 0 | | | 43 | 0 | 44 | 0 | 0.15 | 0 | 46 | 0 | 0.8 | 0 |
| **15-Dec-00** | 0 | 0 | | | 49 | 0 | 41 | 0 | 0.05 | 0 | 39 | 0 | 0.55 | 0 |
| **21-Feb-01** | 0 | 0 | | | 10 | 0 | 29 | 0 | 0 | 0 | 0.5 | 0 | 0.2 | 0 |
| **11-Apr-01** | 0 | 0 | | | 0 | 0 | 0.7 | 0 | 0 | 0 | 22 | 0 | 0 | 0 |
| **20-Jun-01** | 0 | 0 | | | 0 | 0 | 0.15 | 0 | 0 | 0 | 0.7 | 0 | 0.5 | 0 |
| **03-Aug-01** | 0.01 | 0 | | | 0 | 0 | 0.05 | 0 | 0 | 0 | 30 | 0 | 0.4 | 0 |
| **15-Oct-01** | 0 | 0 | | | 0.2 | 0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 |
| **04-Dec-01** | 0.015 | 0 | | | 26 | 0 | 44 | 0 | 0 | 0 | 54 | 0 | 1.05 | 0 |
| **14-Jan-02** | 0 | 0 | | | 7 | 0 | 0.5 | 0 | 0 | 0 | 39 | 0 | 0.4 | 0 |
| **19-Mar-02** | 0.05 | 0 | | | 0 | 0 | 0.05 | 0 | 0 | 0 | 0.5 | 0 | 0.3 | 0 |
| **15-May-02** | 0 | 0 | | | 0.05 | 0 | 0.6 | 0 | 0 | 0 | 19 | 0 | 0 | 0 |
| **16-Jul-02** | 0.02 | 0 | | | 0 | 0 | 0.05 | 0 | 0 | 0 | 0.05 | 0 | 0.1 | 0 |
| **12-Sep-02** | 0.1 | 0 | | | 0.1 | 0 | 0.75 | 0 | 0 | 0 | 22 | 0 | 0.05 | 0 |
| **18-Nov-02** | 0 | 0 | | | 0 | 0 | 1.95 | 0 | 0 | 0 | 53 | 0 | 0 | 0 |
| **13-Feb-03** | 0 | 0 | | | 0.05 | 0 | 0.2 | 0 | 0 | 0 | 1.45 | 0 | 0 | 0 |
| **17-Apr-03** | 0 | 0 | | | 0 | 0 | 0.1 | 0 | 0 | 0 | 0.85 | 0 | 0 | 0 |
| **19-Jun-03** | 0.05 | 0 | | | 0.05 | 0 | 0.45 | 0 | 0 | 0 | 0.45 | 0 | 0 | 0 |
| **13-Aug-03** | 0 | 0 | | | 0.05 | 0 | 0.15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **21-Oct-03** | 1 | 0 | | | 0 | 0 | 0.05 | 0 | 0 | 0 | 11 | 0 | 0 | 0 |
| **20-Jul-04** | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 | 0 |
| **17-Sep-04** | 0 | 0 | | | 0 | 0 | 1 | 0 | 0 | 0 | 2.9 | 0 | 0 | 0 |
| **14-Dec-04** | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 3.5 | 0 | 0 | 0 |
| **24-Feb-05** | 0 | n/a | | | 0 | n/a | 0 | n/a | 0 | n/a | 1 | n/a | 0 | n/a |
| **12-May-05** | 0 | n/a | | | 0 | n/a | 0 | n/a | 0 | n/a | 2.1 | n/a | 0 | n/a |
| **28-Jul-05** | 0 | n/a | | | 0 | n/a | 0 | n/a | 0 | n/a | 0.3 | n/a | 0 | n/a |
| **07-Nov-05** | 0 | n/a | | | 0 | n/a | 0 | n/a | 0 | n/a | 3.2 | n/a | 0 | n/a |
| **10-Feb-06** | 0 | n/a | | | 0.9 | n/a | 0 | n/a | 0 | n/a | 8.2 | n/a | 0.6 | n/a |
| **13-Apr-06** | 0 | n/a | | | 6.3 | n/a | 0 | n/a | 0 | n/a | 19.3 | n/a | 0.9 | n/a |
| **06-Sep-06** | 0 | n/a | | | 19.2 | n/a | 0 | n/a | 0 | n/a | 58.1 | n/a | 1.3 | n/a |
| **06-Dec-06** | 0 | n/a | | | 4.1 | n/a | 0 | n/a | 0 | n/a | 45.6 | n/a | 0 | n/a |

# Table E5. Gas Concentration and Pressure Measurements – GP Series Probes

| Date | Probe | 97-1 | Probe | 97-2 | Probe | 97-3 | Probe | 97-4 | Probe | 97-5 | Probe | 00-06 | Probe | 00-07 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *(SW corner of Site)* | | *(N of Main Pump Station)* | | *(NE of Storage Bldg)* | | *(NE of Main Office)* | | *(N of maintenance Shed)* | | *(Flower bed adjacent to scale house)* | | *(Near Main PS - replaces 97-2))* | |
| | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* | **Methane** *(% in air)* | **Pressure** *(in. W.C.)* |
| **06-Feb-07** | 0 | n/a | | | 3.2 | n/a | 0 | n/a | 0 | n/a | 41.3 | n/a | 0.3 | n/a |
| **22-May-07** | 0 | n/a | | | 15.2 | n/a | 0.1 | n/a | 0 | n/a | 32.3 | n/a | 0 | n/a |
| **10-Aug-07** | 0 | n/a | | | 19.5 | n/a | 0.7 | n/a | 0 | n/a | 37.2 | n/a | 0 | n/a |
| **20-Nov-07** | 0 | n/a | | | 20.1 | n/a | 0 | n/a | 0 | n/a | 47.3 | n/a | 0 | n/a |
| **12-Mar-08** | 0 | n/a | | | 1.3 | n/a | 0 | n/a | 0 | n/a | 28.4 | n/a | 0 | n/a |
| **25-Jun-08** | 0 | n/a | | | 9.3 | n/a | 0 | n/a | 0 | n/a | 19.3 | n/a | 0 | n/a |
| **17-Sep-08** | 0 | n/a | | | 2.1 | n/a | 0 | n/a | 0 | n/a | 14.3 | n/a | 0 | n/a |
| **18-Dec-08** | 0 | n/a | | | 3.1 | n/a | 0 | n/a | 0 | n/a | 9.3 | n/a | 0 | n/a |
| **10-Sep-09** | 0 | n/a | | | 2.1 | n/a | 0 | n/a | 0 | n/a | 9.4 | n/a | 0 | n/a |
| **24-Dec-09** | 0 | n/a | | | 1.9 | n/a | 0 | n/a | 0 | n/a | 13.9 | n/a | 0 | n/a |
| **06-Mar-10** | 0 | n/a | | | 0 | n/a | 20.9 | n/a | 0 | n/a | 61.8 | n/a | 15 | n/a |
| **10-Aug-10** | 0.4 | n/a | | | 54.8 | n/a | 0 | n/a | 0 | n/a | 55.9 | n/a | 1.7 | n/a |



*Gas concentrations are measured in percent by volume in air*

## Table E6. Methane Gas Concentration Readings – South Leachate Collection System

| Date | MH AS % vol | MH BS % vol | MH 1S % vol | MH 2S % vol | MH 3S % vol | MH 4S % vol | MH 5S % vol | MH 5SA % vol | SPS % vol | OSPS % vol | MH 6S % vol | MH 7S % vol | MH 8S % vol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10-Feb-93 | n/a | n/a | 0 | 0 | 0.15 | 0.35 | 0.85 | n/a | 0.25 | 0.1 | 2.5 | 8 | 18 |
| 26-Mar-93 | n/a | n/a | 0 | 0 | 0 | 0 | 0.8 | n/a | 0 | 0 | 0 | 15 | 45 |
| 29-Apr-93 | n/a | n/a | 0 | 0 | 0 | 0 | 0.2 | n/a | 0 | 0 | 1.75 | 4.2 | 10 |
| 21-May-93 | n/a | n/a | 0 | 0 | 0 | 0 | 0.2 | n/a | 0 | 0 | 1.5 | 5 | 13 |
| 21-Jun-93 | n/a | n/a | 0 | 0 | 0 | 0 | 0.3 | n/a | 0.35 | 0 | 2.9 | 8 | 20 |
| 16-Jul-93 | n/a | n/a | 0 | 0 | 0 | 0 | 0 | n/a | 15 | 0.4 | 0.3 | 6 | 45 |
| 10-Aug-93 | n/a | n/a | 0 | 0 | 0 | 0 | 0 | n/a | 20 | 0.8 | 2.95 | 25 | 45 |
| 16-Sep-93 | n/a | n/a | 0 | 0 | 0 | 0 | 0 | n/a | 2.7 | 0.4 | 3.6 | 18 | 38 |
| 13-Oct-93 | n/a | n/a | 0 | 0 | 0 | 0 | 0 | n/a | 1.4 | 0 | 2.45 | 12 | 32 |
| 24-Nov-93 | n/a | n/a | 0 | 0 | 0 | 0 | 0 | n/a | 2.45 | 0 | 4.1 | 18 | 38 |
| 17-Dec-93 | n/a | n/a | 0 | 0 | 0 | 0 | 0 | n/a | 3.7 | 0 | 12 | 25 | 40 |
| 19-Jan-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.6 | 0 | 8 | 20 | 35 |
| 11-Feb-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 8 | 25 |
| 10-Mar-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.6 | 3.2 | 0.15 | 0.75 | 4.1 |
| 19-Apr-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| 12-May-94 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 |
| 23-Jun-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.35 | 0 | 2.8 | 0 |
| 12-Jul-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 7 | 5 |
| 10-Aug-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 | 1.45 | 0.8 |
| 16-Sep-94 | 0 | 0.1 | 0 | 0.25 | 0.15 | 0.05 | 0 | 0.35 | 0.85 | 0.4 | 0.15 | 15 | 0.6 |
| 12-Oct-94 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 10 | 0 | 0 | 5 | 0.45 | 6 |
| 11-Nov-94 | 0.2 | 0 | 0 | 0 | 0 | 0.2 | 0.7 | 0.55 | 0.7 | 0.05 | 0.05 | 3.95 | 0.3 |
| 14-Dec-94 | 3.25 | 0.6 | 0 | 0 | 0 | 6 | 0.9 | 6 | 3.3 | 0 | 0.2 | 5 | 0.4 |
| 17-Jan-95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0 | 2.35 | 0.1 |
| 09-Feb-95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.05 | 0.75 | 0.15 | 0 | 1.85 | 0.025 |
| 10-Mar-95 | 0.9 | 0 | 0.35 | 2.75 | 0.9 | 1.75 | 0.95 | 58 | 0.4 | 1.55 | 3.05 | 40 | 1.8 |
| 13-Apr-95 | 0.6 | 0 | 0.25 | 3.1 | 1.6 | 16 | 3.25 | 56 | 3.1 | 1.9 | 2.7 | 37 | 7 |
| 18-May-95 | 0 | 0.55 | 0.25 | 0.1 | 0.3 | 8 | 0.1 | 4.05 | 1.55 | 0.4 | 1 | 52 | 12 |
| 30-Jun-95 | 0 | 0 | 0 | 0 | 0.1 | 33 | 0.55 | 48 | 18 | 0.1 | 9 | 43 | 1.35 |
| 20-Jul-95 | 0 | 0 | 0 | 0 | 0 | 43 | 1.65 | 52 | 10 | 0 | 10 | 37 | 1.9 |
| 21-Sep-95 | 0 | 1.2 | 8 | 0.2 | 1 | 36 | 0 | 52 | 1 | 0.5 | 0 | 40 | 4.85 |
| 18-Oct-95 | 0 | 2.2 | 8 | 1.75 | 2.6 | 38 | 0 | 54 | 1.9 | 0.8 | 0 | 35 | 8 |
| 22-Nov-95 | 0.55 | 0.45 | 0 | 0 | 0.6 | 0.65 | 0 | 0.15 | 0 | 0 | 0.75 | 2.5 | 2.3 |
| 21-Dec-95 | 3.85 | 1.4 | 0 | 0 | 0 | 1.45 | 0 | 32 | 40 | 0.8 | 0.8 | 36 | 2.15 |
| 09-Jan-96 | 1.65 | 0 | 0 | 0 | 0 | 38 | 0.15 | 53 | 35 | 0.15 | 4.6 | 36 | 1.2 |
| 08-Feb-96 | 1.85 | 0 | 0 | 0 | 0.05 | 47 | 49 | 50 | 0.05 | 4 | 18 | 51 | 5.25 |
| 08-Mar-96 | 5 | 0 | 0 | 0.05 | 0 | 31 | 0 | 45 | 0 | 0.55 | 11 | 31 | 10 |
| 18-Apr-96 | 0.01 | 0 | 2.5 | 0.2 | 0 | 0.35 | 0.7 | 0.3 | 0.05 | 0 | 0.95 | 45 | 1.25 |
| 16-May-96 | 5.5 | 0 | 0 | 0 | 18 | 0.7 | 0.65 | 0.4 | 0.1 | 0 | 4.25 | 50 | 2 |
| 16-Jul-96 | 2.3 | 1 | 0 | 0 | 0 | 31 | 0.5 | 0.35 | 0 | 0 | 1.4 | 37 | 2.75 |
| 26-Sep-96 | 1 | 0.7 | 0.45 | 0 | 0 | 45 | 1.9 | 49 | 23 | 2.7 | 2.5 | 48 | 2.9 |
| 01-Nov-96 | 0.07 | 0.05 | 0 | 0 | 0 | 42 | 0.5 | 45 | 0.05 | 0.05 | 0.4 | 35 | 1.2 |
| 28-Nov-96 | 0.07 | 0 | 0.02 | 2.25 | 1.05 | 1.55 | 0.65 | 48 | 0.04 | 1.8 | 3.1 | 46 | 1.3 |
| 13-Dec-96 | 0.45 | 0.4 | 0.25 | 0 | 0 | 46 | 0.25 | 50 | 33 | 2 | 0.65 | 46 | 0.95 |
| 27-Jan-97 | 0.1 | 7 | 0.15 | 0 | 0.05 | 37 | 0.15 | 54 | 36 | 2 | 0.85 | 31 | 0.7 |
| 11-Feb-97 | 5 | 0.35 | 0 | 0 | 0 | 5.5 | 0 | 10 | 0.05 | 0.55 | 0.7 | 43 | 0.7 |
| 12-Mar-97 | 4 | 0.2 | 0 | 0 | 0 | 4.5 | 0 | 2 | 0 | 0.1 | 0.65 | 57 | 0.5 |
| 30-Apr-97 | 16 | 0.15 | 0 | 0 | 0 | 42 | 1 | 52 | 0 | 0 | 9 | 46 | 2.3 |
| 27-May-97 | 0 | 2.15 | 0.4 | 0.15 | 0 | 41 | 0.65 | 0.05 | 0.05 | 0 | 2.9 | 28 | 0.05 |
| 14-Aug-97 | 0 | 4.65 | 0 | 1.15 | 0 | 2 | 0 | 33 | 8 | 0 | 1.35 | 26 | 1.25 |
| 30-Sep-97 | 0 | 10 | 0.6 | 0.45 | 0.75 | 8 | 0 | 40 | 5.1 | 0.15 | 0 | 0.05 | 0 |
| 18-Nov-97 | 0 | 9 | 0.6 | 0.2 | 0.55 | 6 | 0 | 35 | 5.4 | 0.05 | 0 | 0.05 | 0 |
| 26-Jan-98 | 19 | 0 | 0.15 | 0 | 0 | 44 | 0.2 | 49 | 39 | n/a | 1.85 | 35 | 0.65 |
| 20-Mar-98 | 26 | 0.15 | 0 | 0 | 3.6 | 44 | 0.65 | 52 | 0 | n/a | 22 | 24 | 0.05 |
| 27-May-98 | 18 | 0.05 | 0 | 0 | 2.75 | 21 | 0.5 | 41 | 0 | n/a | 14 | 15 | 0.05 |
| 16-Sep-98 | 9 | 0 | 0 | 0 | 3.75 | 23 | 0.45 | 35 | 0 | n/a | 18 | 11 | 0 |
| 21-Oct-98 | 0 | 1.1 | 0 | 0.1 | 0.65 | 7 | 0.5 | 41 | 0.75 | n/a | 2.4 | 8 | 0 |
| 10-Dec-98 | 0.6 | 0 | 0 | 0.05 | 0 | 10 | 0.4 | 51 | 0.05 | n/a | 2.25 | 0.1 | 0 |
| 12-Jan-99 | 0 | 7 | 0.5 | 0.1 | 0.15 | 1 | 0 | 32 | 0 | n/a | 0 | 0.05 | 0 |
| 16-Feb-99 | 0 | 0 | 0.05 | 0 | 0.35 | 3 | 0 | 22 | 0 | n/a | 0 | 0.2 | 0 |
| 18-Mar-99 | 0 | 3 | 0 | 0 | 0.6 | 0.05 | 0 | 19 | 0 | n/a | 0 | 0.1 | 0 |
| 13-Apr-99 | 0 | 0.05 | 0 | 0 | 0.45 | 2 | 0 | 27 | 0 | n/a | 0 | 0.05 | 0 |
| 20-May-99 | 0 | 0 | 0 | 0 | 0.1 | 3 | 0 | 24 | 0 | n/a | 0 | 0.15 | 0 |



*Gas concentrations are measured in per cent by volume in air*

## Table E6. Methane Gas Concentration Readings – South Leachate Collection System

| Date | MH AS % vol | MH BS % vol | MH 1S % vol | MH 2S % vol | MH 3S % vol | MH 4S % vol | MH 5S % vol | MH 5SA % vol | SPS % vol | OSPS % vol | MH 6S % vol | MH 7S % vol | MH 8S % vol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16-Jun-99 | 0 | 0 | 0 | 0 | 0.05 | 0.05 | 0 | 19 | 0 | n/a | 0 | 0.05 | 0 |
| 24-Jul-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | n/a | 0 | 0.05 | 0 |
| 18-Aug-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | n/a | 0 | 0 | 0 |
| 21-Sep-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | n/a | 0 | 0 | 0 |
| 14-Oct-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | n/a | 0 | 0 | 0 |
| 23-Nov-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | n/a | 0 | 0 | 0 |
| 27-Jan-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | n/a | 0 | 0 | 0 |
| 16-Feb-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | n/a | 0 | 0 | 0 |
| 22-Mar-00 | 8 | 0.05 | 0 | 0.05 | 0 | 12 | 0.05 | 34 | 0.1 | n/a | 0.35 | 24 | 0.5 |
| 18-Apr-00 | 4.5 | 0.1 | 0 | 0 | 0 | 4.5 | 0.15 | 36 | 0.45 | n/a | 0.05 | 4 | 0.3 |
| 21-Jun-00 | 9 | 0.05 | 0 | 0 | 0.05 | 2.85 | 0.05 | 29 | 0.35 | n/a | 0.35 | 2 | 0 |
| 18-Jul-00 | 9 | 0.1 | 0 | 0 | 0 | 17 | 0.1 | 43 | 0.3 | n/a | 0.4 | 19 | 0.5 |
| 24-Aug-00 | 8 | 0 | 0.05 | 0 | 0 | 3.95 | 0.1 | 51 | 0 | n/a | 0.5 | 23 | 0.5 |
| 19-Oct-00 | 9 | 0.1 | 0 | 0.05 | 0.05 | 16 | 0.05 | 52 | 0.4 | n/a | 0.4 | 21 | 0.45 |
| 14-Nov-00 | 10 | 0.1 | 0.05 | 0.05 | 0.05 | 19 | 0.15 | 37 | 0.45 | n/a | 0.45 | 28 | 0.45 |
| 15-Dec-00 | 7 | 0 | 0 | 0 | 0 | 32 | 0.05 | 32 | 0.15 | n/a | 0.15 | 22 | 0.05 |
| 21-Feb-01 | 0 | 0.05 | 0 | 0.05 | 0 | 0.55 | 0.05 | 41 | 0.05 | n/a | 0.1 | 25 | 0.1 |
| 11-Apr-01 | 0.1 | 0 | 0 | 0 | 0.05 | 12 | 0.05 | 49 | 0 | n/a | 0.05 | 18 | 0.1 |
| 20-Jun-01 | 0.05 | 0 | 0 | 0 | 0.05 | 14 | 0.1 | 38 | 0.05 | n/a | 0.05 | 19 | 0.1 |
| 03-Aug-01 | 0.1 | 0 | 0 | 0.05 | 0.05 | 29 | 0.2 | 49 | 0 | n/a | 0.05 | 25 | 0.1 |
| 15-Oct-01 | 0.05 | 0.05 | 0 | 0 | 0.05 | 10 | 0.1 | 56 | 0 | n/a | 0.05 | 13 | 0.05 |
| 04-Dec-01 | 0 | 0 | 0 | 0 | 0 | 12 | 0.05 | 62 | 0 | n/a | 0.05 | 10 | 0.05 |
| 14-Jan-02 | 0.05 | 0 | 0 | 0 | 0.05 | 15 | 0.1 | 72 | 0.05 | n/a | 0.1 | 16 | 0.05 |
| 19-Mar-02 | 0.1 | 0 | 0 | 0 | 0 | 12 | 0.15 | 42 | 0.15 | n/a | 0.1 | 18 | 0.3 |
| 15-May-02 | 0.05 | 0 | 0 | 0 | 0 | 9 | 0.05 | 36 | 0.05 | n/a | 0.05 | 24 | 0.05 |
| 16-Jul-02 | 0.1 | 0 | 0 | 0 | 0 | 11 | 0.05 | 45 | 0.05 | n/a | 0.1 | 19 | 0.1 |
| 12-Sep-02 | 0 | 0 | 0 | 0 | 0 | 8 | 0.1 | 55 | 0 | n/a | 0.1 | 16 | 0.05 |
| 18-Nov-02 | 0.1 | 0.05 | 0 | 0 | 0 | 14 | 0.1 | 49 | 0 | n/a | 0.05 | 22 | 0.05 |
| 13-Feb-03 | 0.05 | 0 | 0 | 0 | 0 | 11 | 0.05 | 30 | 0 | n/a | 0.05 | 12 | 0.1 |
| 17-Apr-03 | 0.1 | 0 | 0 | 0 | 0 | 9 | 0.1 | 47 | 0 | n/a | 0.1 | 9 | 0.05 |
| 19-Jun-03 | 0.05 | 0 | 0 | 0 | 0 | 8 | 0 | 31 | 0.05 | n/a | 0.1 | 18 | 0.05 |
| 13-Aug-03 | 0.05 | 0 | 0 | 0 | 0 | 10 | 0.05 | 64 | 0 | n/a | 0.05 | 13 | 0.05 |
| 21-Oct-03 | 0.05 | 0 | 0 | 0 | 0 | 9 | 0.05 | 89 | 0 | n/a | 0.05 | 19 | 0 |
| 20-Jul-04 | 32.1 | 7.8 | 2.1 | 0.2 | 4.3 | 39.4 | 48.3 | 43.3 | 0.1 | n/a | 22.3 | 37.8 | 33.4 |
| 17-Sep-04 | 49.4 | 9.5 | 3.2 | 0 | 19.1 | 61.3 | 59.3 | 41.3 | 2.3 | n/a | 29.3 | 34.0 | 28.4 |
| 14-Dec-04 | 52.4 | 11.7 | 1.5 | 0 | 22.9 | 65.6 | 62.6 | 47.1 | 9.9 | n/a | 27.8 | 40.0 | 25.9 |
| 24-Feb-05 | 8.9 | 4.6 | 0 | 0 | 2.1 | 22.8 | 21.4 | 48.6 | 0 | n/a | 32.8 | 34.6 | 31.2 |
| 12-May-05 | 9.5 | 5.4 | 0.9 | 0 | 0 | 25.3 | 28.6 | 47.3 | 0 | n/a | 24.3 | 31.2 | 26.3 |
| 28-Jul-05 | 7.4 | 6.1 | 1.3 | 0.1 | 0.3 | 41 | 43 | 49.4 | 0 | n/a | 16.3 | 27.4 | 29.1 |
| 07-Nov-05 | 7.6 | 3.1 | 0.3 | 0.1 | 0 | 34.5 | 39.3 | 41.2 | 0.7 | n/a | 25.7 | 33.8 | 29.2 |
| 10-Feb-06 | 0 | 0 | 0 | 0 | 0.1 | 17.4 | 3 | 31.4 | 0 | n/a | 3.1 | 52.3 | 3.2 |
| 13-Apr-06 | 0 | 0.1 | 0 | 0 | 0.3 | 0.7 | 3.2 | 1.2 | 0 | n/a | 2.1 | 17.3 | 1.9 |
| 06-Sep-06 | 0 | 0 | 0 | 0 | 1.1 | 34.3 | 20.7 | 0 | 0 | n/a | 7.1 | 51.9 | 4.5 |
| 06-Dec-06 | 0 | 0 | 0 | 0 | 0.6 | 23.1 | 11.2 | 0 | 0 | n/a | 9.2 | 21.4 | 1.2 |
| 06-Feb-07 | 0 | 0 | 0 | 0 | 0 | 15.3 | 17.2 | 11.3 | 0 | n/a | 4.3 | 48.2 | 3.2 |
| 22-May-07 | 0 | 0 | 0 | 0 | 0 | 8.4 | 16.2 | 41.2 | 0 | n/a | 2.1 | 49.7 | 1.1 |
| 10-Aug-07 | 0 | 0 | 0 | 0 | 0 | 10.5 | 12.3 | 48.4 | 0 | n/a | 0.4 | 53.4 | 0.8 |
| 20-Nov-07 | 0 | 0 | 0 | 0 | 0 | 4.3 | 10.4 | 47.5 | 0 | n/a | 0.6 | 45.3 | 1 |
| 12-Mar-08 | 0 | 0 | 0 | 0 | 0 | 7.3 | 9.5 | 41.3 | 0 | n/a | 3.1 | 45.3 | 2.1 |
| 25-Jun-08 | 0 | 0 | 0 | 0 | 0 | 5.1 | 8.2 | 31.9 | 0 | n/a | 0 | 31.1 | 0 |
| 17-Sep-08 | 0 | 0 | 0 | 0 | 0 | 2.1 | 4.3 | 44.5 | 0 | n/a | 1.8 | 32.7 | 1.9 |
| 18-Dec-08 | 0 | 0 | 0 | 0 | 0 | 1.6 | 3.3 | 41.3 | 0 | n/a | 0 | 22.4 | 3.4 |
| 10-Sep-09 | 0 | 0 | 0 | 0 | 0 | 1.5 | 2.2 | 22.4 | 0 | n/a | 0 | 41.1 | 0 |
| 24-Dec-09 | 0 | 0 | 0 | 0 | 0 | 0 | 4.3 | 37.3 | 0 | n/a | 1.8 | 21.8 | 1.9 |
| 06-Mar-10 | 0 | 0 | 0 | 0 | 0 | 15.3 | 17.2 | 11.3 | 0 | n/a | 4.3 | 48.2 | 3.2 |
| 10-Aug-10 | 0 | 0.1 | 0 | 0 | 0.2 | 26.8 | 12.2 | 7.7 | 0 | n/a | 3.5 | 28.4 | 0.2 |



*Gas concentrations are measured in per cent by volume in air*

## Table E7. Methane Gas Readings – West Collection System and Main Station

| Date | MPS % vol | OMPS % vol | MH 1W % vol | MH 2W % vol | MH 3W % vol | MH 4W % vol | MH 5W % vol | WPS % vol | OWPS % vol | MH 6W % vol | MH 7W % vol | MH 8W % vol | MH 9W % vol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10-Feb-93 | 0 | 0 | 0 | 0 | 0 | 0 | 0.25 | 0 | 0 | 0.6 | 0.2 | 0.35 | 50 |
| 26-Mar-93 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 | 0 | 0 | 16 | 45 |
| 29-Apr-93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 55 |
| 21-May-93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 55 |
| 21-Jun-93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0 | 25 | 55 |
| 16-Jul-93 | 0 | 0 | 0 | 0 | 0 | 0 | 0.35 | 0 | 0.3 | 10 | 35 | 50 | 55 |
| 10-Aug-93 | 0 | 0 | 0 | 0 | 0 | 0 | 1.95 | 5 | 0.2 | 10 | 35 | 55 | 55 |
| 16-Sep-93 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 2.2 | 0.4 | 2.8 | 4.45 | 45 | 55 |
| 13-Oct-93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.65 | 0 | 2 | 18 | 35 | 55 |
| 24-Nov-93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.35 | 0 | 1.6 | 12 | 50 | 50 |
| 17-Dec-93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0.3 | 18 | 25 | 50 | 50 |
| 19-Jan-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0.3 | 15 | 17 | 50 | 48 |
| 11-Feb-94 | 0 | 0 | 0 | 0 | 3.9 | 0.8 | 0.65 | 0.45 | 0.05 | 15 | 5 | 50 | 55 |
| 10-Mar-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.85 | 0.25 | 0 | 3.6 | 6 | 6 |
| 19-Apr-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 | 17 | 8 | 25 |
| 12-May-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0.75 | 2.75 | 0.4 | 0.05 | 2.95 | 5 | 25 |
| 23-Jun-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 3.1 | 0 | 0 | 0 | 13 |
| 12-Jul-94 | 0.85 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 8 | 0 | 0.05 | 0.2 | 8 |
| 10-Aug-94 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.15 | 0 | 0 | 8 | 15 |
| 16-Sep-94 | 0.05 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0.55 | 1.2 | 0 | 0 | 2.45 | 5 |
| 12-Oct-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.45 | 0.85 | 0 | 0.2 | 3.15 | 10 |
| 11-Nov-94 | 0.15 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0.1 | 0 | 0.1 | 3.75 | 5 |
| 14-Dec-94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.85 | 0 | 0 | 0.9 | 4 | 18 |
| 17-Jan-95 | 0.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0.95 | 0.55 | 0.65 | 0.15 | 0.85 | 5 |
| 09-Feb-95 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.85 | 0.1 | 0 | 0 | 1.05 | 5 |
| 10-Mar-95 | 0 | 0 | 0 | 0 | 0 | 0 | 0.65 | 1.25 | 2.75 | 2.1 | 0.6 | 25 | 52 |
| 13-Apr-95 | 0 | 0 | 0 | 0 | 0 | 0 | 2.55 | 1.1 | 2 | 4.4 | 9 | 22 | 57 |
| 18-May-95 | 0.35 | 0.45 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0.15 | 0 | 0 | 1.4 | 60 |
| 30-Jun-95 | 0.15 | 0.1 | 0 | 0 | 0 | 0 | 0.5 | 1 | 0 | 0.15 | 0.3 | 1 | 1.9 |
| 20-Jul-95 | 1.8 | 0.35 | 0 | 0 | 0 | 0 | 0.35 | 1.45 | 0 | 0.45 | 0.35 | 1.45 | 2.85 |
| 21-Sep-95 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0.3 | 0.5 | 1.1 | 0.6 | 0.3 | 50 |
| 18-Oct-95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0.3 | 1.5 | 2.3 | 0.4 | 54 |
| 22-Nov-95 | 0.1 | 0.45 | 0 | 0 | 0 | 0 | 0.9 | 0 | 1.95 | 0.4 | 0.6 | 0 | 0.9 |
| 21-Dec-95 | 0 | 0.65 | 0 | 0 | 0 | 0 | 1.2 | 0 | 3.55 | 3 | 0.2 | 0 | 0.85 |
| 09-Jan-96 | 0.2 | 2.75 | 0 | 0 | 0 | 0.55 | 2.45 | 4.95 | 3.05 | 5 | 1.1 | 4.95 | 1.6 |
| 08-Feb-96 | 0.55 | 0.6 | 0 | 0.4 | 1.25 | 2.25 | 12 | 0 | 5.45 | 5.3 | 10 | 0 | 20 |
| 08-Mar-96 | 0.05 | 3.95 | 0.05 | 0.05 | 0.4 | 3.55 | 2.55 | 0 | 0.2 | 0.55 | 0.6 | 0 | 19 |
| 18-Apr-96 | 0.35 | 0.05 | 0 | 0 | 0 | 0.35 | 0.55 | 0 | 0.15 | 0.1 | 0.35 | 0 | 0.05 |
| 16-May-96 | 0.15 | 0.65 | 0 | 0 | 0 | 0.05 | 0.35 | 0 | 0 | 0.15 | 0.1 | 0 | 49 |
| 16-Jul-96 | 0.2 | 0.2 | 0 | 0 | 0 | 0.05 | 1.25 | 1.05 | 0 | 4.45 | 0.4 | 1.05 | 40 |
| 26-Sep-96 | 0.85 | 1.45 | 0 | 0 | 0 | 0.15 | 1.1 | 1.1 | 1.5 | 0.55 | 0.25 | 1.1 | 50 |
| 01-Nov-96 | 0.35 | 4.45 | 0 | 0 | 0 | 0.4 | 1.1 | 3.35 | 0.15 | 0.15 | 0.15 | 0 | 49 |
| 28-Nov-96 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 1.4 | 2.25 | 2.35 | 0.9 | 28 | 51 |
| 13-Dec-96 | 1.2 | 0.1 | 0 | 0 | 0 | 0.4 | 0.35 | 0 | 1.8 | 0 | 0.05 | 0 | 50 |
| 27-Jan-97 | 0.95 | 0.05 | 0 | 0 | 0 | 0.45 | 0.3 | 0 | 1.95 | 0 | 0.1 | 0 | 52 |
| 11-Feb-97 | 0.1 | 2.3 | 0 | 0 | 0 | 0.3 | 1.55 | 0 | 0.05 | 0.45 | 0.25 | 0 | 2.25 |
| 12-Mar-97 | 0 | 1.5 | 0 | 0 | 0 | 0.1 | 0.75 | 0 | 0 | 0.1 | 0.1 | 0 | 2.55 |
| 30-Apr-97 | 0 | 0.35 | 0 | 0 | 0 | 0.2 | 3.05 | 0 | 0.15 | 0.7 | 1.35 | 0 | 51 |
| 27-May-97 | 0.2 | 1.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 0.05 | 0 | 50 |
| 14-Aug-97 | 0 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | 49 |
| 30-Sep-97 | 0 | 0.15 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 0 | 0 | 0 |
| 18-Nov-97 | 0 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 |
| 26-Jan-98 | 0 | n/a | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0.05 | 0 | 51 |
| 20-Mar-98 | 0.2 | 1.4 | 0 | 0 | 0 | 0 | 0 | 0.5 | n/a | 9 | 0.05 | 0.5 | 50 |
| 27-May-98 | 0.1 | 1.8 | 0 | 0 | 0 | 0 | 0 | 0.25 | n/a | 2 | 0 | 0.25 | 55 |
| 16-Sep-98 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0.15 | n/a | 1 | 0 | 0.15 | 75 |
| 21-Oct-98 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.05 | 0 | 0 | 60 |
| 10-Dec-98 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.05 | n/a | 0 | 0 | 0.05 | 65 |
| 12-Jan-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0 |
| 16-Feb-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | n/a | 0 | 0 | 0.05 | 0 |



*Gas Concentrations are measured in per cent by volume in air*

## Table E7. Methane Gas Readings – West Collection System and Main Station

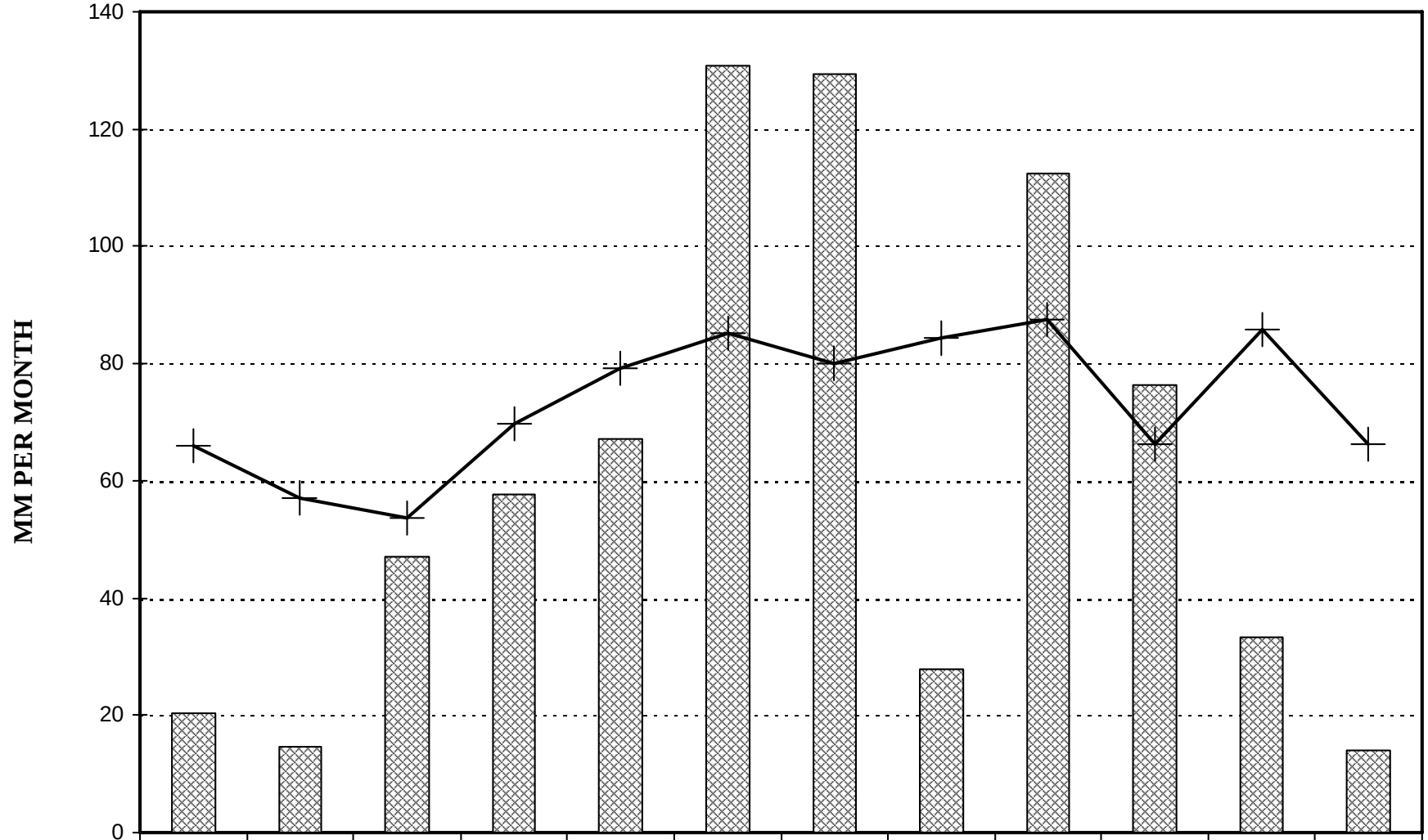
| Date | MPS % vol | OMPS % vol | MH 1W % vol | MH 2W % vol | MH 3W % vol | MH 4W % vol | MH 5W % vol | WPS % vol | OWPS % vol | MH 6W % vol | MH 7W % vol | MH 8W % vol | MH 9W % vol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18-Mar-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0.1 |
| 13-Apr-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0.05 |
| 20-May-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0.05 |
| 16-Jun-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0.05 |
| 24-Jul-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0 |
| 18-Aug-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0.05 |
| 21-Sep-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0 |
| 14-Oct-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0 |
| 23-Nov-99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0 |
| 27-Jan-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0 |
| 16-Feb-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0 |
| 22-Mar-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 2 | 0.7 | 0 | 46 |
| 18-Apr-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 3.45 | 0.45 | 0 | 46 |
| 21-Jun-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 3.95 | 0.6 | 0 | 39 |
| 18-Jul-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 2.6 | 0.35 | 0 | 0.85 |
| 24-Aug-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 4.1 | 0.6 | 0 | 29 |
| 19-Oct-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 3.7 | 0.5 | 0 | 39 |
| 14-Nov-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0 | n/a | 3.3 | 0.75 | 0 | 42 |
| 15-Dec-00 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | n/a | 3.6 | 0.45 | 0 | 4 |
| 21-Feb-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 1.15 | 0.1 | 0 | 31 |
| 11-Apr-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | n/a | 0.5 | 0 | 0 | 65 |
| 20-Jun-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | n/a | 0.45 | 0.05 | 0 | 71 |
| 03-Aug-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.3 | 0.05 | 0 | 67 |
| 15-Oct-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0.05 | 0 | n/a | 0.2 | 0.05 | 0 | 58 |
| 04-Dec-01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.1 | 0 | 0 | 45 |
| 14-Jan-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.75 | 0.05 | 0 | 64 |
| 19-Mar-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | n/a | 0.85 | 0.4 | 0 | 71 |
| 15-May-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.7 | 0 | 0 | 61 |
| 16-Jul-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 1.7 | 0.05 | 0 | 77 |
| 12-Sep-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.75 | 0.05 | 0 | 81 |
| 18-Nov-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.55 | 0 | 0 | 72 |
| 13-Feb-03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.35 | 0 | 0 | 89 |
| 17-Apr-03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.55 | 0 | 0 | 91 |
| 19-Jun-03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.85 | 0 | 0 | 81 |
| 13-Aug-03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.65 | 0 | 0 | 75 |
| 21-Oct-03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0.45 | 0 | 0 | 64 |
| 20-Jul-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 0 |
| 17-Sep-04 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 14.2 | 41.9 | 54.8 |
| 14-Dec-04 | 0 | 0 | 0.6 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 16.7 | 42.7 | 51.6 |
| 24-Feb-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 37.2 | 53.4 |
| 12-May-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 2.1 | 32.4 | 48.7 |
| 28-Jul-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 29.4 | 47.8 |
| 07-Nov-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 3.3 | 25.7 | 51.1 |
| 10-Feb-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0.3 | 5.2 |
| 13-Apr-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0.9 | 3.9 |
| 06-Sep-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 1.8 | 2.7 |
| 06-Dec-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 1.7 | 1.2 |
| 06-Feb-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0.6 | 2.3 |
| 22-May-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 4.7 |
| 10-Aug-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 5.9 |
| 20-Nov-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 5.2 |
| 12-Mar-08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 31.2 |
| 25-Jun-08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 8.1 |
| 17-Sep-08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 5.4 |
| 18-Dec-08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 11.2 |
| 10-Sep-09 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 1.2 |
| 24-Dec-09 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0 | 3.1 |
| 06-Mar-10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n/a | 0 | 0 | 0.6 | 2.3 |
| 10-Aug-10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | n/a | 0 | 0.4 | 0.4 | 0.1 |



*Gas Concentrations are measured in per cent by volume in air*

# Appendix F

## Detailed Water Budget – 2010




| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2010 | 20.5 | 14.5 | 47 | 57.7 | 67.1 | 130.7 | 129.3 | 27.7 | 112.6 | 76.2 | 33.2 | 14.2 |
| Normal | 66.1 | 57.05 | 53.57 | 69.65 | 79.15 | 85.17 | 80.05 | 84.41 | 87.53 | 66.21 | 85.8 | 66.2 |

AECOM

**Eastview Road Landfill Site**

**Precipitation Comparison, 2010**

**FIGURE F-1**

**60191188**

13 Precip Data

# Appendix G

## City of Guelph Letter

March 15, 2011
AECOM
300 Town Centre Blvd., Ste 300
Markham, ON L3R 5Z6
Attention: Terry LaChapelle

Dear Terry,

RE: Eastview Road Landfill Site, Condition 17.10 of Amended Certificate of Approval #A170101

Pursuant to Condition 17.10 of the Ministry of the Environment's Provisional Certificate of Approval for a Waste Disposal Site, No. A170101, please be advised that, during 2010, the pumping for the municipal wells in the Northeast Quadrant of the City near the Eastview Road landfill Site was within the historical pumping range.
Please find below a table listing the combined total annual pumpage since 1988 for the municipal wells located in the Northeast quadrant. These wells include the Park wells, Emma well, Helmar well, Clythe well, and Eastview well. The Eastview well was last operated as a municipal supply well in 1988.

**Northeast Yearly Total Pumpage Summary in Cubic Meters**

| Date | Park | Emma | Helmar | Eastview | Clythe | Total |
|---|---|---|---|---|---|---|
| 1988 | 2,258,976 | 232,109 | 472,027 | 226,375 | 0 | 3,189,487 |
| 1989 | 1,728,084 | 72,981 | 130,681 | 0 | 0 | 1,931,746 |
| 1990 | 1,200,259 | 116,738 | 2,030 | 0 | 378,288 | 1,697,315 |
| 1991 | 1,195,801 | 151,344 | 29,101 | 0 | 541,567 | 1,917,813 |
| 1992 | 928,653 | 323,544 | 0 | 0 | 525,443 | 1,777,640 |
| 1993 | 891,617 | 130,121 | 37,720 | 0 | 110,879 | 1,170,337 |
| 1994 | 1,558,890 | 310,761 | 15,361 | 0 | 449,852 | 2,334,864 |
| 1995 | 1,376,021 | 323,705 | 120,912 | 0 | 445,747 | 2,266,385 |
| 1996 | 1,043,067 | 135,697 | 107,350 | 0 | 485,297 | 1,771,411 |
| 1997 | 804,472 | 339,713 | 0 | 0 | 0 | 1,144,185 |
| 1998 | 1,596,679 | 298,113 | 87,483 | 0 | 23,344 | 2,005,619 |
| 1999 | 1,874,595 | 135,767 | 533,049 | 0 | 5,693 | 2,549,104 |
| 2000 | 1,939,923 | 133,335 | 480,335 | 0 | 0 | 2,553,593 |
| 2001 | 2,155,110 | 249,265 | 603,499 | 0 | 0 | 3,007,874 |
| 2002 | 1,842,069 | 332,225 | 488,843 | 0 | 0 | 2,663,137 |
| 2003 | 1,778,537 | 876,852 | 344,736 | 0 | 0 | 3,000,125 |
| 2004 | 1,550,849 | 606,618 | 240,673 | 0 | 0 | 2,398,140 |
| 2005 | 1,694,300 | 742,938 | 390,480 | 0 | 0 | 2,827,718 |
| 2006 | 1,799,198 | 883,785 | 378,818 | 0 | 0 | 3,061,801 |
| 2007 | 1,727,419 | 740,179 | 359,768 | 0 | 0 | 2,827,366 |
| 2008 | 2,158,815 | 830,767 | 182,734 | 0 | 0 | 3,172,316 |
| 2009 | 2,375,626 | 636,392 | 198,849 | 0 | 0 | 3,210,867 |
| 2010 | 2,351,990 | 577,706 | 257,932 | 0 | 0 | 3,187,628 |

**City Hall**
1 Carden St
Guelph, ON
Canada
N1H 3A1

T 519-822-1260
TTY 519-826-9771

guelph.ca

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Please call me at (519-837-5627) if you require additional information on our pumpages or on the proposed monitoring program.

Sincerely Yours,

Kier Taylor , Compliance Co-Ordinator
Planning, Engineering & Environmental Services,
Water Services,
City of Guelph

cc: Janet Laird, Dave Belanger, Peter Busatto, Vince Suffoletta

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