



April 19, 2010

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Construction Services, 12th Floor
625 Broadway
Albany, New York 12233-7013

Attn: Jeffrey E. Trad, P.E.
Environmental Engineer II

Re: **Sonia Road Landfill**
NYSDEC Site Number 152013
Post Closure Groundwater Monitoring Program
First Semi Annual Sampling Results

Dear Mr. Trad:

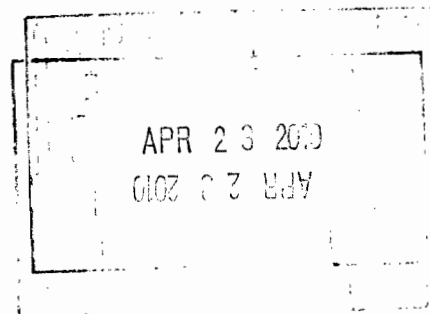
Transmitted herewith for your review and consideration is two copies of the following Post Closure Groundwater Monitoring Program Quarterly Sampling Results for the Sonia Road Landfill:

1. 1st Semi Annual Sampling 2010 (Baseline Sampling Event)

Sincerely,

Anthony J. Varrichio, P.E.
Chief Engineer

AJV:ce
encl.



cc: C. Andrade, IRRA President
A. Sanchez, IRRA Vice President Operations **w/encl.**
K. Wenz, Jr. CPG - H2M
E. Lenio, NYSDEC, Stony Brook
File



**FEBRUARY 2010 SEMI-ANNUAL MONITORING
REPORT
(BASELINE SAMPLING EVENT)**

POST CLOSURE GROUNDWATER MONITORING
PROGRAM

SONIA ROAD LANDFILL
BRENTWOOD, NEW YORK

APRIL 2010

Prepared for:

Islip Resource Recovery Agency
401 Main Street
Islip, New York 11751



FEBRUARY 2010 SEMI-ANNUAL MONITORING REPORT**Sonia Road Landfill****Brentwood, NY****CONTENTS**

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION.....	1
1.1 Purpose.....	1
1.2 Site Location and Description.....	1
2.0 MONITORING WELL NETWORK AND GROUNDWATER SAMPLE LOCATIONS.....	4
3.0 SAMPLING AND ANALYTICAL PROCEDURES.....	4
3.1 Groundwater Level Measurement.....	4
3.2 Groundwater Sampling.....	5
3.3 Organic Vapor and Combustible Gas Monitoring.....	6
3.4 Analytical Parameters.....	6
4.0 ANALYTICAL RESULTS.....	6
4.1 Field Parameters.....	6
4.2 Groundwater Samples.....	7
4.2.1 Leachate Indicators.....	7
4.2.2 Historic Leachate Indicators.....	7
4.2.3 Inorganic Parameters.....	11
4.2.4 Historic Inorganic Parameters.....	12
4.2.5 Volatile Organic Compounds.....	18
4.3 Organic Vapor and Combustible Gas Monitoring.....	18
5.0 DATA VALIDATION.....	18
6.0 GROUNDWATER LEVEL MEASUREMENTS AND FLOW DIRECTION.....	20
7.0 CONCLUSIONS AND RECOMMENDATIONS.....	21
7.1 Conclusions.....	21
7.2 Recommendations.....	22

FEBRUARY 2010 SEMI-ANNUAL MONITORING REPORT**Sonia Road Landfill****Brentwood, NY****FIGURES**

<u>No.</u>	<u>Description</u>
1	Site Location Map
2	Groundwater Monitoring Well Locations
3	Water Table Elevation Contour Map
4	Potentiometric Surface Elevation Contour Map for Intermediate Zone
5	Potentiometric Surface Elevation Contour Map for Deep Zone

TABLES

<u>No.</u>	<u>Description</u>
1	Summary of Well Construction Details
2	Wells Sampled as Part of the Post Closure Groundwater Monitoring Program
3	Total Volatile Organic Compound and Combustible Gas Readings
4	Final Field Measurements
5	Summary of Concentrations Trends for Leachate Indicator Parameters
6	Summary of Concentrations Trends for Inorganic Parameters
7	Depth to Water and Groundwater Elevation Measurements

APPENDICES

A	Historic Data Tables and Graphs
A-1	Leachate Indicator Parameters
A-2	Inorganic Parameters
A-3	Volatile Organic Compounds
A-4	Water Quality Graphs
B	Data Validation Report

1.0 INTRODUCTION

This report presents the results of the February 2010 semi-annual groundwater monitoring event conducted as part of the Post Closure Groundwater Monitoring Program for the Sonia Road Landfill. The sampling program was conducted for the Town of Islip, as administered by the Islip Resource Recovery Agency (IRRA), in conformance with the December 2001 Sampling and Analysis Plan (SAP) prepared by others. The SAP is a part of the Sonia Road Post Closure Monitoring and Maintenance Plan (Volume 3 of 4), which was approved by the New York State Department of Environmental Conservation (NYSDEC) in a letter dated January 18, 2006.

1.1 Purpose

The purpose of the Post Closure Groundwater Monitoring Program is to monitor groundwater quality and flow direction following capping and closure of the Sonia Road Landfill.

This Post Closure Groundwater Monitoring Program report includes discussions of the sample locations, sampling procedures, laboratory analyses, field and analytical results, data validation, groundwater level measurements and groundwater flow direction. In addition, the report includes a comparison of the analytical results from the February 2010 semi-annual sampling event to applicable New York State groundwater quality standards and guidance values.

1.2 Site Location and Description

The Sonia Road Landfill is a capped and closed inactive municipal solid waste landfill owned by the Town of Islip. The landfill is located at 1355 Howells Road in the hamlet of Brentwood in the western portion of the Town and is in close proximity to the western town

boundary with the Town of Babylon. The location of the Sonia Road Landfill is shown on Figure 1.

The landfill property is 42.2 acres in area and is approximately rectangular in shape. The landfill is bounded to the north by industrial properties, to the east by residential properties, to the south by Deer Park Street with residential properties beyond, and to the west by Howell's Road, Secatogue Road, and Corbin Avenue with industrial properties beyond. In the southwest corner of the property is one residential parcel (Tax Map No. 221-2-1), which is not part of landfill property described above. At the northwest corner of the property is a 0.5-acre parcel owned by the Town of Islip (Tax Map No. 198-5-7.3), which is identified as a paper street. Given that the waste mass extends onto this parcel, it is considered as part of the landfill property, and as a result, the overall landfill property is considered to be 42.7 acres. At and abutting the northeast corner of the landfill property is the western extension of Sonia Road for which the facility is named.

The landfill property itself is zoned Industrial I and Industrial II with a small portion along the southeastern boundary zoned as residential.

To the southwest of the landfill property is the West Brentwood Middle School, which is located on the west side of Howell's Road. Beyond the school property to the south and west is the headwater of Sampawams Creek. Sampawams Creek is fed by groundwater discharge as well as storm water management systems for the surrounding areas. Sampawams Creek runs from north to south and empties into the Guggenheim Lakes, which are located north of the Southern State Parkway. Sampawams Creek generally describes the western boundary of the Town of Islip and the eastern boundary of the Town of Babylon.

The Sonia Road Landfill site has been owned by the Town of Islip since 1965. Prior to 1965, the site was privately owned and used as a source of mined sand and gravel. As a result of this mining operation, virtually the entire site was disturbed, including the removal of vegetation, topsoil and underlying minerals. The mining operation was extensive with the removal of

minerals progressing to and below the water table. Removal of minerals below the water table was accomplished through the use of dredging equipment. This activity resulted in the formation of a groundwater lake over a significant portion of the site (40% to 50%). It is reported that this dredging operation may have removed materials to a depth of 50 feet below the water table. Soil borings constructed as part of the remedial investigation at the landfill confirmed that waste lies at least 36 feet below the water table.

In 1965, the Town of Islip took title to the Sonia Road property and began a landfilling operation for the disposal of municipal solid waste. Landfilling at the site occurred between 1965 and 1977, with the most active period of landfilling occurring between 1965 and 1974. It has been estimated that between 1.5 and 2.0 million cubic yards of waste were disposed at the site. There are no weight records to substantiate this estimate.

The landfill reportedly accepted all municipal solid waste delivered to the site. This waste is reported to include wood, concrete, metal, plastic, glass, household waste in the form of refuse, rubbish, demolition materials and yard wastes (particularly leaves). It is also reported that junk automobiles were routinely disposed at the facility and that underground fires were common.

The Sonia Road Landfill was capped in the fall of 2000. The landfill capping system covers an area of approximately 40 acres. The capping system includes an active landfill gas management system, an on-site storm water management system and a perimeter road constructed around the entire site using recycled concrete aggregate. The storm water management system consists of a series of drainage swales, catch basins, buried storm water piping, dry wells and two recharge basins. Storm water from the northeastern corner of the property is discharged to a series of dry wells (leaching rings) in the area of Sonia Road. The remainder of the site storm water is directed to Recharge Basins 1 and 2 located on the west side of the property. Recharge Basin 1 is located adjacent to the main entrance gate located on Corbin Avenue, and Recharge Basin 2 is located in the southwest corner of the property. For the majority of the site, drainage swales are located on the in-board side of the perimeter road.

2.0 MONITORING WELL NETWORK AND GROUNDWATER SAMPLE LOCATIONS

The monitoring well network for the Sonia Road Landfill consists of 35 wells. Well locations are shown on Figure 2. The monitoring wells were constructed as 12 well clusters, with each cluster comprised of a shallow (S) well, intermediate (I) well and deep (D) well, with the exception of the MW-02 cluster. Shallow well MW-02S was abandoned in August 2005 and has been eliminated from the Post-closure Monitoring Program. All 35 wells were utilized for water level measurements. Well construction information for all wells is summarized in Table 1.

Twenty-two (22) wells are included as part of the Post Closure Monitoring Program. The sampled wells are listed in Table 2. All 22 monitoring wells were sampled during the Third Quarter 2009 sampling event.

3.0 SAMPLING AND ANALYTICAL PROCEDURES

Sampling procedures for the Sonia Road Landfill site are described in the SAP. Dedicated and disposable sampling equipment was used whenever possible in accordance with the SAP. All non-disposable equipment was decontaminated before first use on-site and between uses in accordance with the procedures described in the SAP. The following sections provide brief discussions of the procedures used during groundwater level measurement activities, organic vapor and combustible gas monitoring, groundwater sampling and sample analysis.

3.1 Groundwater Level Measurement

Prior to collecting the groundwater samples, synoptic water level measurements were obtained from all 35 monitoring wells for determination of groundwater elevations and groundwater flow direction. Groundwater level measurements were obtained from a surveyed measuring point on each well using an electronic water level indicator to an accuracy of

0.01 foot. A discussion of the groundwater level measurement results and groundwater flow direction is provided in Section 6.0.

3.2 Groundwater Sampling

Prior to collection of each groundwater sample, 3 to 5 well volumes were purged from the well. Well purging was accomplished by first measuring the static water level in the well and calculating the standing water volume. A decontaminated submersible pump was used to purge each well.

During the purging process, field parameters (pH, specific conductance, temperature, oxidation-reduction potential (ORP), dissolved oxygen and turbidity) were monitored and recorded. When the values of the field parameters, except turbidity, equilibrated within 10% based on the last two readings, the turbidity of the groundwater was less than 50 Nephelometric Turbidity Units (NTUs) and at least three well volumes had been removed, well purging was considered complete.

Groundwater samples were collected using new, dedicated, disposable polyethylene bailers and polypropylene rope. Samples were collected immediately after purging. Filled sample bottles were stored in ice-filled coolers with the chain of custody forms and delivered on the day of collection to H2M Laboratories, Inc. for analysis. H2M Laboratories, Inc. is approved by the New York State Department of Health Environmental Laboratory Approval Program (ELAP) for the analyses performed.

Appropriate quality assurance/quality control (QA/QC) samples, including field blanks, matrix spike and matrix spike duplicate (MS/MSD) sets and blind duplicates, were collected in accordance with the SAP. For the baseline sampling event, trip blanks accompanied all sample shipments.

In accordance with the SAP, purge water from all on-site wells and all wells immediately adjacent to the landfill property was disposed directly into the nearest landfill capping system drainage swale. Purge water generated from off-site well clusters 11 and 12 was pumped into a tank truck, transported to the landfill and discharged into the landfill's on-site Recharge Basin 1 in accordance with the SAP.

3.3 Organic Vapor and Combustible Gas Monitoring

Total organic vapor and combustible gas measurements were collected in all 35 monitoring wells throughout the reporting period. Organic vapors were measured using a photoionization detector (PID). Combustible gas was measured using a portable multi-gas meter. Gas monitoring results represent headspace measurements collected during the synoptic groundwater level measurements. The organic vapor and combustible gas monitoring results for the reporting period are provided in Table 3.

3.4 Analytical Parameters

Groundwater samples collected during the February 2010 semi-annual sampling event were analyzed for 6 NYCRR Part 360 Baseline Parameters, in accordance with SW-846 methods as specified in the 6 NYCRR Part 360 regulations. The analytical results are discussed in Section 4.2.

4.0 ANALYTICAL RESULTS

4.1 Field Parameters

As described in Section 3.2, field parameters monitored during the purging of the monitoring wells included pH, specific conductance, temperature, ORP, dissolved oxygen and turbidity. A summary of the final field parameter values measured at the time of sample

collection and additional field data collected during February 2010 semi-annual sampling event is provided in Table 4.

4.2 Groundwater Samples

The analytical results for the groundwater samples collected during the February 2010 semi-annual sampling event, compared to NYSDEC Class GA groundwater standards and guidance values, are provided in Appendix A-1 (leachate indicator parameters), Appendix A-2 (inorganic parameters) and Appendix A-3 (volatile organic compounds). Historic sample results are also included in these tables.

4.2.1 Leachate Indicators

As shown in Appendix B-1, the leachate indicator ammonia was detected in one well at a concentration exceeding NYSDEC Class GA groundwater standards. The parameter is discussed below.

Ammonia

The groundwater standard for ammonia of 2 milligrams per liter (mg/l) was slightly exceeded in well MW-04S. The detected concentration was 2.66 mg/l.

4.2.2 Historic Leachate Indicators

A comparison of the current leachate indicator results for the 22 sampled wells to the previous results (Fourth Quarter 2009 sampling event) is provided below. Concentration trends and exceedances of groundwater standards/guidance values for each well and parameter are summarized in Table 5.

Alkalinity

Five (5) of the 22 wells sampled showed increasing alkalinity concentrations (defined as a change of at least 20% compared to the previous results). These wells are MW-11S, MW-11I, MW-11D, MW-12S and MW-12D. Eight (8) wells (MW-04I, MW-04D, MW-05S, MW-05D, MW-06S, MW-06D, MW-07I, MW-12I) showed decreasing concentrations (defined as a change of at least 20% compared to the previous results). The remaining 9 wells were consistent (defined as within 20% of the previous results).

Ammonia

Two (2) wells (MW-03S and MW-06S) showed increasing ammonia concentrations. Five (5) wells (MW-04I, MW-04D, MW-05S, MW-07I and MW-12I) showed decreasing concentrations. The remaining 15 wells were consistent.

Biochemical Oxygen Demand

Two (2) wells (MW-03S and MW-06S) showed increasing biochemical oxygen demand (BOD). Two (2) wells (MW-04I and MW-04S) showed decreasing concentrations. The remaining 18 wells were consistent.

Bromide

All 22 wells were consistent.

Chemical Oxygen Demand

Two (2) wells (MW-04S and MW-05I) showed increasing chemical oxygen demand (COD). Six (6) wells (MW-01S, MW-01D, MW-03S, MW-04I, MW-05S and MW-11S) showed decreasing COD. The remaining 14 wells were consistent.

Chloride

Two (2) wells (MW-11S and MW-11D) showed increasing chloride concentrations. Fifteen (15) wells (MW-01S, MW-01D, MW-02S, MW-02D, MW-03S, MW-04I, MW-04D, MW-05S, MW-05I, MW-05D, MW-06I, MW-07I, MW-11I, MW-12I and MW-12D) showed decreasing chloride concentrations. The remaining 5 wells were consistent.

Hardness

Two (2) wells (MW-01D and MW-11D) showed increasing hardness concentrations. Six (6) wells (MW-04I, MW-04D, MW-05I, MW-05D, MW-07I and MW-12D) showed decreasing hardness concentrations. The remaining 14 wells were consistent.

Nitrate

Thirteen (13) wells (MW-01S, MW-01I, MW-02I, MW-03S, MW-04I, MW-04D, MW-05S, MW-05I, MW-06I, MW-07I, MW-11S, MW-12S and MW-12I) showed increasing nitrate concentrations. Three (3) wells (MW-01D, MW-06S and MW-11I) showed decreasing nitrate concentrations. The remaining 6 wells were consistent.

Phenols

Five (5) wells (MW-01D, MW-02I, MW-04D, MW-05S and MW-05I) showed increasing total phenols concentrations. One (1) well (MW-01I) showed a decreasing concentration. The remaining 06 wells were consistent.

Sulfate

Two (2) wells (MW-04I and MW-05S) showed increasing sulfate concentrations. Eighteen (18) wells (MW-01S, MW-01I, MW-01D, MW-02I, MW-02D, MW-03S, MW-04S, MW-04D, MW-05I, MW-05D, MW-06S, MW-07I, MW-11S, MW-11I, MW-11D, MW-12S, MW-12I and MW-12D) showed decreasing sulfate concentrations. The remaining 2 wells were consistent.

Total Organic Carbon

Four (4) wells (MW-01D, MW-05I, MW-11S and MW-11D) showed increasing total organic carbon (TOC) concentrations. Four (4) wells (MW-01S, MW-03S, MW-04I and MW-05S) showed decreasing TOC concentrations. The remaining 14 wells were consistent.

Total Dissolved Solids

Two (2) wells (MW-11S and MW-11D) showed increasing total dissolved solids (TDS) concentrations. Twelve (12) wells (MW-01S, MW-01D, MW-04I, MW-04D, MW-05S, MW-05I, MW-05D, MW-06I, MW-06D, MW-07I, MW-11I and MW-12I) showed decreasing TDS concentrations. The remaining 8 wells were consistent.

Total Kjeldahl Nitrogen

Nine (9) wells (MW-01I, MW-02I, MW-02D, MW-03S, MW-05I, MW-05D, MW-11S, MW-11D and MW-12S) showed increasing total Kjeldahl nitrogen (TKN) concentrations. Six (6) wells (MW-01D, MW-04I, MW-04D, MW-05S, MW-06I and MW-12I) showed decreasing TKN concentrations. The remaining 7 wells were consistent.

4.2.3 Inorganic Parameters

As shown in Appendix B-2, four metals (total chromium, iron, manganese, and sodium) were detected in one or more wells at concentrations exceeding NYSDEC Class GA groundwater standards. These parameters are each discussed below.

Total Chromium

The groundwater standard for chromium of 50 ug/l was exceeded in well MW-12S. The total chromium concentration detected in this well was 152 ug/l.

Iron

The groundwater standard for iron of 300 ug/l was exceeded in 14 wells (MW-01S, MW-01I, MW-01D, MW-03S, MW-04S, MW-04I, MW-04D, MW-05S, MW-05I, MW-05D, MW-06S, MW-06I, MW-11D and MW-12S). Iron concentrations detected in these wells ranged from 315 ug/l in MW-01D to 56,600 ug/l in MW-06S.

Manganese

The groundwater standard for manganese of 300 ug/l was exceeded in 13 wells (MW-01S, MW-03S, MW-04S, MW-04I, MW-05S, MW-05I, MW-05D, MW-06S, MW-06D, MW-07I, MW-11S, MW-11D and MW-12I). Manganese concentrations detected in these wells ranged from 366 ug/l in MW-04I to 5,420 ug/l in MW-03S.

Sodium

The groundwater standard for sodium of 20,000 ug/l was exceeded in 9 wells (MW-01S, MW-03S, MW-04S, MW-04I, MW-05D, MW-07I, MW-11S, MW-11D and MW-12S). Sodium

concentrations detected in these wells ranged from 22,300 ug/l in MW-05D to 56,800 ug/l in MW-11S.

4.2.4 Historic Inorganic Parameters

A comparison of the current inorganic indicator results for the 22 sampled wells to the previous results (First Quarter 2009 sampling event or previous baseline monitoring event, whichever is most recent) is provided below. Concentration trends and exceedances or groundwater standards/guidance values for each well and parameter are summarized in Table 6.

Aluminum

Thirteen (13) wells (MW-01I, MW-03S, MW-04S, MW-04I, MW-04D, MW-05S, MW-05I, MW-05D, MW-11I, MW-11D, MW-12S, MW-12I and MW-12D) showed increasing aluminum concentrations. Seven (7) wells (MW-01S, MW-01D, MW-02I, MW-02D, MW-06S, MW-06D and MW-07I) showed decreasing aluminum concentrations. The remaining 2 wells were consistent.

Antimony

Monitoring well MW-01D showed an increasing antimony concentration. Two (2) wells (MW-06S and MW-07I) showed decreasing antimony concentrations. The remaining 19 wells were consistent.

Arsenic

Monitoring well MW-11D showed an increasing arsenic concentration. Nineteen (19) wells (MW-01S, MW-01I, MW-01S, MW-02I, MW-02D, MW-03S, MW-04I, MW-04D, MW-05S, MW-05D, MW-06S, MW-06I, MW-06D, MW-07I, MW-11S, MW-11I, MW-12S, MW-12I

and MW-12D) showed decreasing arsenic concentrations. The remaining 2 wells were consistent.

Barium

Four (4) wells (MW-05I, MW-11S, MW-11I and MW-11D) showed increasing barium concentrations. Eight (8) wells (MW-01S, MW-02D, MW-04I, MW-04D, MW-05S, MW-05D and MW-07I) showed decreasing barium concentrations. The remaining 10 wells were consistent.

Beryllium

All 22 wells were consistent.

Boron

Six (6) wells (MW-01S, MW-04D, MW-05I, MW-11S, MW-11I and MW-12D) showed increasing boron concentrations. Seven (7) wells (MW-01D, MW-02D, MW-04I, MW-05S, MW-06I, MW-07I and MW-11D) showed decreasing cadmium concentrations. The remaining 9 wells were consistent.

Cadmium

Twelve (12) wells (MW-01I, MW-01D, MW-02I, MW-04D, MW-05I, MW-05D, MW-11S, MW-11I, MW-11D, MW-12S, MW-12I and MW-12D) showed increasing cadmium concentrations. Six (6) wells (MW-01S, MW-02D, MW-03S, MW-04S, MW-05S and MW-06S) showed a decreasing cadmium concentration. The remaining 4 wells were consistent.

Calcium

Nine (9) wells (MW-01I, MW-01D, MW-02I, MW-04D, MW-05I, MW-05D, MW-11S, MW-11I and MW-11D) showed increasing calcium concentrations. Seven (7) wells (MW-01S, MW-02D, MW-03S, MW-04S, MW-05S, MW-06S and MW-12D) showed decreasing calcium concentrations. The remaining 6 wells were consistent.

Hexavalent Chromium

All 22 wells were consistent.

Total Chromium

Thirteen (13) wells (MW-01S, MW-01I, MW-02D, MW-03S, MW-04S, MW-05S, MW-05I, MW-05D, MW-11S, MW-11I, MW-11D, MW-12S and MW-12I) showed increasing total chromium concentrations. Five (5) wells (MW-01D, MW-02I, MW-06I, MW-07I and MW-12D) showed decreasing total chromium concentrations. The remaining 4 wells were consistent.

Cobalt

Thirteen (13) wells (MW-01I, MW-02I, MW-04S, MW-04I, MW-05S, MW-05I, MW-07I, MW-11S, MW-11I, MW-11D, MW-12S, MW-12I and MW-12D) showed increasing cobalt concentrations. Five (5) wells (MW-01S, MW-04D, MW-05D, MW-06S and MW-06D) showed decreasing cobalt concentrations. The remaining 4 wells were consistent.

Copper

Eighteen (18) wells (MW-01I, MW-01D, MW-02I, MW-02D, MW-04I, MW-04D, MW-05S, MW-05I, MW-05D, MW-06I, MW-06D, MW-07I, MW-11S, MW-11I, MW-11D, MW-12S, MW-12I and MW-12D) showed increasing copper concentrations. Well MW-03S showed a decreasing copper concentration. The remaining 3 wells were consistent.

Iron

Nine (9) wells (MW-01I, MW-02I, MW-05D, MW-07I, MW-11S, MW-11I, MW-11D, MW-12S and MW-12D) showed increasing iron concentrations. Nine (9) wells (MW-01S, MW-01D, MW-02D, MW-04I, MW-04D, MW-05S, MW-06S, MW-06I and MW-06D) showed decreasing iron concentrations. The remaining 4 wells were consistent.

Lead

Two (2) wells (MW-05I and MW-11D) showed increasing lead concentrations. Sixteen (16) wells (MW-01S, MW-01I, MW-01D, MW-02D, MW-03S, MW-04S, MW-04I, MW-04D, MW-05S, MW-06S, MW-06I, MW-06D, MW-11S, MW-12S, MW-12I and MW-12D) showed decreasing lead concentrations. The remaining 4 wells were consistent.

Magnesium

Five (5) wells (MW-01D, MW-02I, MW-11S, MW-11I and MW-11D) showed increasing magnesium concentrations. Four (4) wells (MW-02D, MW-04I, MW-04D and MW-05S) showed decreasing magnesium concentrations. The remaining 13 wells were consistent.

Manganese

Five (5) wells (MW-11S, MW-11I, MW-11D, MW-12S and MW-12D) showed increasing manganese concentrations. Eleven (11) wells (MW-01S, MW-01D, MW-02I, MW-02D, MW-04I, MW-04D, MW-05S, MW-05I, MW-05D, MW-06D and MW-12I) showed decreasing manganese concentrations. The remaining 6 wells were consistent.

Mercury

MW-03S showed an increasing mercury concentration. The remaining 21 wells were consistent.

Nickel

Fourteen (14) wells (MW-01I, MW-01D, MW-02D, MW-03S, MW-04S, MW-05S, MW-05I, MW-06S, MW-11S, MW-11I, MW-11D, MW-12S, MW-12I and MW-12D) showed increasing nickel concentrations. Three (3) wells (MW-05D, MW-06D and MW-07I) showed decreasing nickel concentrations. The remaining 5 wells were consistent.

Potassium

Six (6) wells (MW-01S, MW-01D, MW-11S, MW-11I, MW-11D and MW-12S) showed increasing potassium concentrations. Five (5) wells (MW-02D, MW-04D, MW-05S, MW-05D and MW-07I) showed decreasing potassium concentrations. The remaining 11 wells were consistent.

Selenium

Five (5) wells (MW-01D, MW-06I, MW-06D, MW-07I and MW-11D) showed decreasing selenium concentrations. The remaining 17 wells were consistent.

Silver

All 22 wells were consistent.

Sodium

Four (4) wells (MW-03S, MW-11S, MW-11I and MW-12S) showed increasing sodium concentrations. Seven (7) wells (MW-01D, MW-02D, MW-04I, MW-04D, MW-05S, MW-07I and MW-12I) showed decreasing sodium concentrations. The remaining 11 wells were consistent.

Thallium

All 22 wells were consistent.

Vanadium

Eight (8) wells (MW-01S, MW-03S, MW-04S, MW-05S, MW-05I, MW-05D, MW-11D and MW-12S) showed increasing vanadium concentrations. Well MW-06S showed a decreasing vanadium concentration. The remaining 13 wells were consistent.

Zinc

Fourteen (14) wells (MW-01I, MW-01D, MW-02I, MW-03S, MW-04S, MW-04D, MW-05S, MW-05I, MW-05D, MW-07I, MW-11I, MW-11D, MW-12S and MW-12I) showed increasing zinc concentrations. Five (5) wells (MW-01S, MW-02D, MW-06S, MW-11S and MW-12D) showed decreasing zinc concentrations. The remaining 3 wells were consistent.

Cyanide

All 22 wells were consistent.

4.2.5 Volatile Organic Compounds

Volatile organic compounds (VOCs) were analyzed and evaluated against the NYSDEC Class GA groundwater standards or guidance values for all of the 22 wells sampled during the August 2009 semi-annual sampling event. Eight (8) of the wells contained no detectable concentrations of VOCs. None of the 22 sampled wells contained concentrations of VOCs in exceedance of the NYSDEC Class GA groundwater standards or guidance values. However, the remaining 14 wells contained trace concentrations of one or more VOCs. These VOCs included tetrachloroethene, chloroform, chlorobenzene, chloroethane and 1,2-dichlorobenzene. All VOCs in the 14 wells were detected at concentrations below the contract required detection limit, and as such, are considered estimated values.

In order to evaluate changes in groundwater quality, historic results for alkalinity, iron plus manganese, total dissolved solids and specific conductivity were graphed for the shallow, intermediate and deep zones for upgradient well clusters 1 and 11, and downgradient well clusters 4 and 5. These parameters were selected as possible indicators of landfill impacts to groundwater. These graphs are included in Appendix A-4.

4.3 Organic Vapor and Combustible Gas Monitoring

The results of the organic vapor and combustible gas monitoring are presented in Table 3. VOCs were measured by the photoionization detector (PID) during the February 2010 semi-annual sampling event, which resulted in 8 of the 22 monitoring wells displaying VOCs concentrations. The background VOCs concentrations were approximately 0.0 to 3.1 ppm during well head-space readings. In addition, all 22 wells showed a combustible gas reading of 0% of the lower explosive limit (LEL).

5.0 DATA VALIDATION

The data packages were validated in accordance with the SAP. The data validation report is included in Appendix B.

Twenty-two (22) groundwater samples, two blind duplicate samples, two matrix spike/matrix spike duplicate (MS/MSD) sample sets and two field blanks were collected as part of the February 2010 semi-annual monitoring event at the Sonia Road Landfill. Sample analysis was performed by H2M Laboratories, a contractor to the IRRRA, in accordance with SW-846 laboratory methods as specified in the 6 NYCRR Part 360 regulations. H2M Laboratories is approved by the New York State Department of Health Environmental Laboratory Approval Program (ELAP) for the analyses performed.

The data packages submitted by H2M Laboratories were reviewed for completeness and compliance with the analytical methods. All of the quality assurance/quality control (QA/QC) samples (calibrations, spikes, duplicates and blanks), as well as 10% of the analytical results, were reviewed yielding a “10% validation”. The samples that were reviewed included MW-02D, MW-06I, MW-12D, field and trip blanks, and matrix spikes. The findings of the review process are summarized below.

All samples were analyzed within the method-specified holding times. All QA/QC requirements were met.

The results for all volatile analyses of MW-01I and MW-06S and were qualified as estimated due to low responses of associated calibration standards. Bromomethane, chloromethane, vinyl chloride and vinyl acetate in MW-02D, MW-02I, MW-05D, MW-05I, MW-05S and MW-07I were qualified as estimated due to possible low biases of outlying calibrations responses. Any detections of acetone in all sample results were considered to be estimated due to its presence in associated storage, trip and/or method blanks.

Blind duplicate samples were collected from MW-02I (labeled as MW-02X) and MW-06I (labeled as MW-06X). The recovery values and duplicate correlations were acceptable for all analyses of MW-02I and MW-06I with the exception for nitrate in MW-06I and was therefore qualified as estimated.

The serial dilutions of MW-02D and MW-06D were acceptable with the exception of potassium and iron. As a result, reported iron concentrations were qualified as estimated in samples collected from wells MW-01S, MW-01I, MW-01D, MW-03S, MW-04S, MW-04I, MW-04D, MW-06S, MW-06I, MW-06D, MW-11S, MW-11I, MW-11D, MW-12S, MW-12I and MW-12D. Reported potassium concentrations were qualified as estimated in samples from wells MW-02I, MW-03D, MW-05S, MW-05I, MW-05D and MW-07I.

The detection of TKN in MW-01S, MW-01I, MW-01D, MW-04I, MW-04D, MW-06I, MW-06D, MW-11S, MW-11I, MW-12S, MW-12I and MW-12D is considered external contamination and edited to reflect non-detection (“UJ*”) due to its presence in the associated field blank.

Other than as described above, qualification of the data was not necessary. All data are deemed valid and usable for environmental assessment purposes.

6.0 GROUNDWATER LEVEL MEASUREMENTS AND FLOW DIRECTION

Groundwater level measurements were obtained in February 2010, from the 22 monitoring wells included in the Post-Closure Groundwater Monitoring Program and the 13 additional site-related wells not sampled as part of the program. The depth to groundwater measurements, measuring point elevations, and calculated groundwater elevations for the 35 monitoring wells are shown in Table 7.

The February water level data were used to construct groundwater elevation contour maps for the shallow (water table), intermediate and deep Upper Glacial aquifer wells at and in

the immediate vicinity of the Sonia Road Landfill. Water table and potentiometric surface (for the intermediate and deep wells) elevation contour maps are presented on Figures 3, 4 and 5, respectively. Groundwater flow in the vicinity of the landfill is toward the southeast for the zones of the Upper Glacial aquifer screened by the shallow, intermediate and deep wells. This flow direction is consistent with historic data for the site.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

Groundwater Flow

Based on groundwater level measurements collected during the February 2010 semi-annual sampling event and the water table/potentiometric surface elevation contour maps prepared for the site, groundwater flow in the vicinity of the Sonia Road Landfill is toward the southeast for the zones of the Upper Glacial aquifer screened by the shallow, intermediate and deep wells. This flow direction is consistent with historic data for the site.

Groundwater Quality

Based on a comparison of the February 2010 semi-annual sample results to those from the Fourth Quarter 2009 sampling event, as well as review of the historical trend graphs in Appendix A-4, groundwater quality in the vicinity of the Sonia Road Landfill has not changed substantially.

Ammonia and chromium were detected at concentrations above their standard in one monitoring well during this sampling event. However, elevated ammonia concentrations have historically been detected in monitoring wells located upgradient of the landfill. As a result, it appears unlikely that the source of the detected ammonia is the Sonia Road Landfill. Chromium was detected in only one upgradient well and as a result it appears unlikely that the source of the

source is the Sonia Road Landfill. Similarly, the detected concentrations of iron, manganese and sodium are likely not indicative of landfill-influenced groundwater, since concentrations of these parameters exceeding groundwater standards were detected in monitoring wells located upgradient and downgradient of the landfill.

7.2 Recommendations

Based on the results from the February 2010 semi-annual sampling event and comparison of these results to historic data for the Sonia Road Landfill, it is recommended to continue to sample the groundwater monitoring wells on a semi-annual basis, as approved by the NYSDEC, and in accordance with the SAP.

TABLES

Table 1
SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS
Sonia Road Landfill Post Closure Groundwater Monitoring Program

Well Designation	Date Completed	Well Diameter (inches)	Screen Type	Total Depth (feet below grade)	Screen Setting		Measuring Point Elevation (feet above mean sea level)
					Depth (feet below measuring point)	Elevation (feet above mean sea level)	
MW-01D ⁽¹⁾	10/14/97	4	SS	106	96-106	(-32) - (-42)	64.53
MW-01I ⁽¹⁾	10/6/97	4	SS	78	68 - 78	(-2) - (-12)	65.36
MW-01S ⁽¹⁾	1/5/95	4	PVC	29	19 - 29	47 - 37	66.01
MW-02D ⁽⁴⁾	10/13/97	4	SS	116	106 - 116	(-27) - (-37)	78.43
MW-02I ⁽⁴⁾	10/1/97	4	SS	72	62 - 72	16 - 7	78.24
MW-02S				<i>Abandoned in August 2005</i>			
MW-03D ⁽¹⁾	9/30/97	4	SS	107	97 - 107	(-26) - (-36)	70.50
MW-03I ⁽¹⁾	1/9/95	4	PVC	84	79 - 84	(-8) - (-13)	70.77
MW-03S ⁽¹⁾	1/6/95	4	PVC	32	22 - 32	49 - 39	70.76
MW-04D ⁽¹⁾	10/6/97	4	SS	114	104 - 114	(-35) - (-45)	69.03
MW-04I ⁽¹⁾	9/29/97	4	SS	71	61 - 71	8 - (-2)	69.31
MW-04S ⁽¹⁾	1/6/95	4	PVC	34	24 - 34	48 - 38	71.10
MW-05D ⁽¹⁾	10/10/97	4	SS	116	106 - 116	(-35) - (-45)	70.96
MW-05I ⁽¹⁾	10/2/97	4	SS	70	60 - 70	11 - 1	70.26
MW-05S ⁽¹⁾	10/4/97	4	SS	34	19 - 34	52 - 37	70.28
MW-06D ⁽⁵⁾	10/1/97	4	SS	117	107 - 117	(-32) - (-42)	75.02
MW-06I ⁽⁴⁾	9/25/97	4	SS	76	66 - 76	9 - (-1)	74.52
MW-06S ⁽⁵⁾	9/24/97	4	SS	37	22 - 37	53 - 38	74.45
MW-07D ⁽¹⁾	10/8/97	4	SS	122	112 - 122	(-37) - (-47)	75.04
MW-07I ⁽⁴⁾	9/26/97	4	SS	74	64 - 74	9 - (-1)	73.43
MW-07S ⁽¹⁾	9/28/97	4	SS	34	19 - 34	54 - 39	72.83
MW-10D ⁽²⁾	10/15/97	4	SS	96	86 - 96	(-29) - (-39)	56.34
MW-10I ⁽²⁾	10/7/97	4	SS	69	59 - 69	(-3) - (-13)	56.16
MW-10S ⁽²⁾	10/8/97	4	SS	19	4 - 19	53 - 38	56.65

Table 1 (continued)
SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS
Sonia Road Landfill Post Closure Groundwater Monitoring Program

Well Designation	Date Completed	Well Diameter (inches)	Screen Type	Total Depth (feet below grade)	Screen Setting		Measuring Point Elevation (feet above mean sea level)
					Depth (feet below measuring point)	Elevation (feet above mean sea level)	
MW-11D ⁽¹⁾	10/16/97	4	SS	94	84 - 94	(-24) - (-34)	60.19
MW-11I ⁽¹⁾	10/11/97	4	SS	71	61 - 71	(-1) - (-11)	60.38
MW-11S ⁽¹⁾	10/13/97	4	SS	19	4 - 19	56 - 41	59.87
MW-12D ⁽¹⁾	10/15/97	4	SS	98	88 - 98	(-29) - (-39)	58.61
MW-12I ⁽¹⁾	10/10/97	4	SS	70	60 - 70	(-1) - (-11)	58.92
MW-12S ⁽¹⁾	10/13/97	4	SS	19	4 - 19	55 - 40	58.79
MW-13D ⁽³⁾	10/16/97	4	SS	119	109 - 119	(-38) - (-48)	70.37
MW-13I ⁽³⁾	10/7/97	4	SS	71	61 - 71	9 - (-1)	70.30
MW-13S ⁽³⁾	10/8/97	4	SS	37	22 - 37	49 - 34	70.51
MW-14D ⁽³⁾	10/17/97	4	SS	105	95 - 105	(-30) - (-40)	64.58
MW-14I ⁽³⁾	10/9/97	4	SS	71	61 - 71	4 - (-6)	64.57
MW-14S ⁽³⁾	10/14/97	4	SS	30	15 - 30	50 - 35	64.55

Notes:

PVC Polyvinyl chloride
SS Stainless steel

⁽¹⁾Monitoring wells surveyed by Municipal Land Survey, P.C., August 2001.

⁽²⁾Monitoring wells surveyed by YEC, Inc., November 1997.

⁽³⁾Monitoring wells surveyed by YEC, Inc., September 2000.

⁽⁴⁾Monitoring wells surveyed by Municipal Land Survey, P.C., August 11, 2005.

⁽⁵⁾Monitoring wells surveyed by Municipal Land Survey, P.C., August 2006.

SOURCE: Remedial Investigation/Feasibility Study (RI/FS) dated April 1998 and surveys noted above.

Table 2
WELLS SAMPLED AS PART OF THE POST CLOSURE
GROUNDWATER MONITORING PROGRAM
Sonia Road Landfill Post Closure Groundwater Monitoring Program

MW-01D	MW-04D	MW-06D	MW-11S
MW-01I	MW-04I	MW-06I	MW-12D
MW-01S	MW-04S	MW-06S	MW-12I
MW-02D	MW-05D	MW-07I	MW-12S
MW-02I	MW-05I	MW-11D	
MW-03S	MW-05S	MW-11I	

Table 3
TOTAL VOLATILE ORGANIC COMPOUND AND COMBUSTIBLE GAS READINGS
FEBRUARY 2010 SEMI-ANNUAL SAMPLING EVENT
Sonia Road Landfill Post Closure Groundwater Monitoring Program

Well	Total VOCs ¹	Combustible Gas ²	Well	Total VOCs ¹	Combustible Gas ²
MW-01D	0.5*	0	MW-05S	0.0	0
MW-01I	0.3*	0	MW-06D	2.8*	0
MW-01S	0.0*	0	MW-06I	3.0*	0
MW-02D	0.0	0	MW-06S	3.2*	0
MW-02I	0.0	0	MW-07I	0.0	0
MW-03S	0.0	0	MW-11D	0.0	0
MW-04D	83.9*	0	MW-11I	0.0	0
MW-04I	1.8*	0	MW-11S	0.0	0
MW-04S	21.2*	0	MW-12D	0.0	0
MW-05D	0.0	0	MW-12I	0.0	0
MW-05I	0.0	0	MW-12S	0.0	0

¹ Parts per million, calibration gas equivalents.

² Percent lower explosive limit for methane.

* Background VOCs were approximately 1.8 to 3.1 ppm.

Table 4
FINAL FIELD MEASUREMENTS
FEBRUARY 2010 SEMI-ANNUAL SAMPLING EVENT
Sonia Road Landfill Post Closure Groundwater Monitoring Program

Monitoring Well	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	DO (mg/l)	Temperature (°C)	ORP (mV)
MW-01S	6.95	0.498	5.9	1.63	15.08	-60
MW-01I	5.97	0.093	5.1	5.44	14.02	211
MW-01D	5.61	0.918	5.3	4.91	13.65	242
MW-02I	6.14	0.316	1.2	1.40	15.24	197
MW02D	6.23	0.127	1.9	10.08	14.67	188
MW-03S	6.58	0.90	1.5	1.49	17.50	-106
MW-04S	6.62	0.783	22.7	5.65	14.64	-76
MW-04I	6.76	0.515	5.0	1.61	15.24	-114
MW-04D	6.85	0.238	4.7	1.66	14.76	-147
MW-05S	6.34	1.04	2.6	0.95	17.63	-88
MW-05I	6.79	0.90	1.9	1.63	14.54	-110
MW-05D	6.00	0.768	3.3	0.42	13.86	115
MW-06S	6.41	0.528	7.2	1.57	18.90	-113
MW-06I	6.05	0.246	4.7	1.76	15.91	114
MW-06D	6.05	0.221	5.0	1.65	15.07	32
MW-07I	6.01	0.517	1.2	1.96	14.94	207
MW-11S	6.64	0.90	1.7	2.71	11.03	177
MW-11I	5.64	0.112	3.0	11.46	13.07	220
MW-11D	5.82	0.268	15.0	10.41	13.02	212
MW-12S	6.39	0.520	0.6	5.34	13.29	158
MW-12I	6.01	0.303	0.5	4.43	14.07	173
MW-12D	6.12	0.283	0.4	4.37	14.18	209

mS/cm: Millisiemens per centimeter.
NTUs: Nephelometric turbidity units
mg/l Milligrams per liter.

°C: Degrees Centigrade.
mV: Millivolts

Table 5
SUMMARY OF CONCENTRATION TRENDS FOR LEACHATE INDICATOR PARAMETERS
FEBRUARY 2010 SEMI-ANNUAL SAMPLING EVENT
Sonia Road Landfill Post Closure Groundwater Monitoring Program

Well	Location	Alkalinity	Ammonia	BOD	Bromide	COD	Chloride	Hardness	Nitrate	Total Phenols	Sulfate	TOC	TDS	TKN
MW-01S	Upgradient	C	C	C	C	D	D	C	I	C	D	D	D	C
MW-01I	Upgradient	C	C	C	C	C	C	C	I	D	D	C	C	I
MW-01D	Upgradient	C	C	C	C	D	D	I	D	I	D	I	D	D
MW-02I	Upgradient	C	C	C	C	C	D	C	I	I	D	C	C	I
MW-02D	Upgradient	C	C	C	C	C	D	C	C	C	D	C	C	I
MW-03S	Downgradient	C	I	I	C	D	D	C	I	C	D	D	C	I
MW-04S	Downgradient	C	C	D	C	I	C	C	C	C	D	C	C	C
MW-04I	Downgradient	D	D	D	C	D	D	D	I	C	I	D	D	D
MW-04D	Downgradient	D	D	C	C	C	D	D	I	I	D	C	D	D
MW-05S	Downgradient	D	D	C	C	D	D	C	I	I	I	D	D	D
MW-05I	Downgradient	C	C	C	C	I	D	D	I	I	D	I	D	I
MW-05D	Downgradient	D	C	C	C	C	D	D	C	C	D	C	D	I
MW-06S	Sidegradient	D	I	C	C	C	C	C	D	C	D	C	C	C
MW-06I	Sidegradient	C	C	C	C	C	D	C	I	C	C	C	D	D
MW-06D	Sidegradient	D	C	C	C	C	C	C	C	C	C	C	D	C
MW-07I	Upgradient	D	D	I	C	C	D	D	I	C	D	C	D	C
MW-11S	Upgradient	I	C	C	C	D	I	C	I	C	D	I	I	I
MW-11I	Upgradient	I	C	C	C	C	D	C	D	C	D	C	D	C
MW-11D	Upgradient	I	C	C	C	C	I	I	C	C	D	I	I	I
MW-12S	Upgradient	I	C	C	C	C	C	C	I	C	D	C	C	I
MW-12I	Upgradient	D	D	C	C	C	D	C	I	C	D	C	D	D
MW-12D	Upgradient	I	C	C	C	C	D	D	C	C	D	C	C	C

I: Increasing trend (change greater than 20%)

D: Decreasing trend (change greater than 20%)

C: Consistent trend (within 20%)

 Parameter exceeds standard/guidance value during the current sampling event.

BOD: Biochemical Oxygen Demand

COD: Chemical Oxygen Demand

TOC: Total Organic Carbon

TKN: Total Kjeldahl Nitrogen

Table 6
SUMMARY OF CONCENTRATION TRENDS FOR INORGANIC PARAMETERS
FEBRUARY 2010 SEMI-ANNUAL SAMPLING EVENT
Sonia Road Landfill Post Closure Groundwater Monitoring Program

Well	Location	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Hexavalent Chromium
MW-01S	Upgradient	D	C	D	D	C	I	D	D	C
MW-01I	Upgradient	I	C	D	C	C	C	I	I	C
MW-01D	Upgradient	D	I	D	C	C	D	I	I	C
MW-02I	Upgradient	D	C	D	C	C	C	I	I	C
MW-02D	Upgradient	D	C	D	D	C	D	D	D	C
MW-03S	Downgradient	I	C	D	C	C	C	D	D	C
MW-04S	Downgradient	I	C	C	C	C	C	D	D	C
MW-04I	Downgradient	I	C	D	D	C	D	C	C	C
MW-04D	Downgradient	I	C	D	D	C	I	I	I	C
MW-05S	Downgradient	I	C	D	D	C	D	D	D	C
MW-05I	Downgradient	I	C	C	I	C	I	I	I	C
MW-05D	Downgradient	I	C	D	D	C	C	I	I	C
MW-06S	Sidegradient	D	D	D	C	C	C	D	D	C
MW-06I	Sidegradient	C	C	D	C	C	D	C	C	C
MW-06D	Sidegradient	D	C	D	D	C	C	C	C	C
MW-07I	Upgradient	D	D	D	D	C	D	C	C	C
MW-11S	Upgradient	C	C	D	I	C	I	I	I	C
MW-11I	Upgradient	I	C	D	I	C	I	I	I	C
MW-11D	Upgradient	I	C	I	I	C	D	I	I	C
MW-12S	Upgradient	I	C	D	C	C	C	I	C	C
MW-12I	Upgradient	I	C	D	C	C	C	I	C	C
MW-12D	Upgradient	I	C	D	C	C	I	I	D	C

I: Increasing trend (change greater than 20%)

D: Decreasing trend (change greater than 20%)

C: Consistent trend (within 20%)

 Parameter exceeds standard/guidance value during the current sampling event.

Table 6 (continued)
SUMMARY OF CONCENTRATION TRENDS FOR INORGANIC PARAMETERS
FEBRUARY 2010 SEMI-ANNUAL SAMPLING EVENT
Sonia Road Landfill Post Closure Groundwater Monitoring Program

Well	Location	Total Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel
MW-01S	Upgradient	I	D	C	D	D	C	D	C	C
MW-01I	Upgradient	I	I	I	I	D	C	C	C	I
MW-01D	Upgradient	D	C	I	D	D	I	D	C	I
MW-02I	Upgradient	D	I	I	I	C	I	D	C	C
MW-02D	Upgradient	I	C	I	D	D	D	D	C	I
MW-03S	Downgradient	I	C	D	C	D	C	C	I	I
MW-04S	Downgradient	I	I	C	C	D	C	C	C	I
MW-04I	Downgradient	C	I	I	D	D	D	D	C	C
MW-04D	Downgradient	C	D	I	D	D	D	D	C	C
MW-05S	Downgradient	I	I	I	D	D	D	D	C	I
MW-05I	Downgradient	I	I	I	C	I	C	D	C	I
MW-05D	Downgradient	I	D	I	I	C	C	D	C	D
MW-06S	Sidegradient	C	D	C	D	D	C	C	C	I
MW-06I	Sidegradient	D	C	I	D	D	C	C	C	C
MW-06D	Sidegradient	C	D	I	D	D	C	D	C	D
MW-07I	Upgradient	D	I	I	I	C	C	C	C	D
MW-11S	Upgradient	I	I	I	I	D	I	I	C	I
MW-11I	Upgradient	I	I	I	I	C	I	I	C	I
MW-11D	Upgradient	I	I	I	I	I	I	I	C	I
MW-12S	Upgradient	I	I	I	I	D	C	I	C	I
MW-12I	Upgradient	I	I	I	C	D	C	D	C	I
MW-12D	Upgradient	D	I	I	I	D	C	I	C	I

I: Increasing trend (change greater than 20%)

D: Decreasing trend (change greater than 20%)

C: Consistent trend (within 20%)

 Parameter exceeds standard/guidance value during the current sampling event.

Table 6 (continued)
SUMMARY OF CONCENTRATION TRENDS FOR INORGANIC PARAMETERS
FEBRUARY 2010 SEMI-ANNUAL SAMPLING EVENT
Sonia Road Landfill Post Closure Groundwater Monitoring Program

Well	Location	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide	Iron plus Manganese
MW-01S	Upgradient	I	C	C	C	C	I	D	C	D
MW-01I	Upgradient	C	C	C	C	C	C	I	C	I
MW-01D	Upgradient	I	D	C	D	C	C	I	C	D
MW-02I	Upgradient	C	C	C	C	C	C	I	C	C
MW-02D	Upgradient	D	C	C	D	C	C	D	C	D
MW-03S	Downgradient	C	C	C	I	C	I	I	C	C
MW-04S	Downgradient	C	C	C	C	C	I	I	C	C
MW-04I	Downgradient	C	C	C	D	C	C	C	C	D
MW-04D	Downgradient	D	C	C	D	C	C	I	C	D
MW-05S	Downgradient	D	C	C	D	C	I	I	C	D
MW-05I	Downgradient	C	C	C	C	C	I	I	C	C
MW-05D	Downgradient	D	C	C	C	C	I	I	C	D
MW-06S	Sidegradient	C	C	C	C	C	D	D	C	D
MW-06I	Sidegradient	C	D	C	C	C	C	C	C	I
MW-06D	Sidegradient	C	D	C	C	C	C	C	C	D
MW-07I	Upgradient	D	D	C	D	C	C	I	C	C
MW-11S	Upgradient	I	C	C	I	C	C	D	C	I
MW-11I	Upgradient	I	C	C	I	C	C	I	C	I
MW-11D	Upgradient	I	D	C	C	C	I	I	C	I
MW-12S	Upgradient	I	C	C	I	C	I	I	C	I
MW-12I	Upgradient	C	C	C	D	C	C	I	C	D
MW-12D	Upgradient	C	C	C	C	C	C	D	C	I

I: Increasing trend (change greater than 20%)

D: Decreasing trend (change greater than 20%)

C: Consistent trend (within 20%)

 Parameter exceeds standard/guidance value during the current sampling event.

Table 7
DEPTH TO WATER AND GROUNDWATER ELEVATION MEASUREMENTS
FEBRUARY 2010 SEMI-ANNUAL SAMPLING EVENT
Sonia Road Landfill Post Closure Groundwater Monitoring Program

Well	Measuring Point Elevation ¹	Depth to Water ² (February 2010)	Groundwater Elevation ¹
MW-01S	66.01	14.29	51.72
MW-01I	65.36	13.64	51.72
MW-01D	64.53	12.80	51.73
MW-02I	78.24	27.12	51.12
MW-02D	78.43	27.54	50.89
MW-03S	70.76	20.82	49.94
MW-03I	70.77	20.85	49.92
MW-03D	70.5	20.82	49.68
MW-04S	71.1	22.32	48.78
MW-04I	69.31	20.60	48.71
MW-04D	69.03	20.21	48.82
MW-05S	70.28	21.16	49.12
MW-05I	70.26	21.11	49.15
MW-05D	70.96	22.58	48.38
MW-06S	74.45	25.07	49.38
MW-06I	74.52	25.16	49.36
MW-06D	75.02	25.66	49.36
MW-07S	72.83	22.50	50.33
MW-07I	73.43	23.09	50.34
MW-07D	75.04	24.74	50.30
MW-10S	56.65	4.70	51.95
MW-10I	56.16	4.54	51.62
MW-10D	56.34	4.75	51.59
MW-11S ³	--	6.42	--
MW-11I ⁴	60.38	6.43	53.95
MW-11D	60.19	6.60	53.59
MW-12S	58.79	6.50	52.29
MW-12I	58.92	6.77	52.15
MW-12D	58.61	6.64	51.97
MW-13S	70.51	24.59	45.92
MW-13I ³	70.3	--	--
MW-13D	70.37	24.43	45.94
MW-14S ⁴	64.55	17.44	47.11
MW-14I ⁴	64.57	17.60	46.97
MW-14D ⁴	64.58	18.57	46.01

¹ Feet above mean sea level.

² Feet below measuring point.

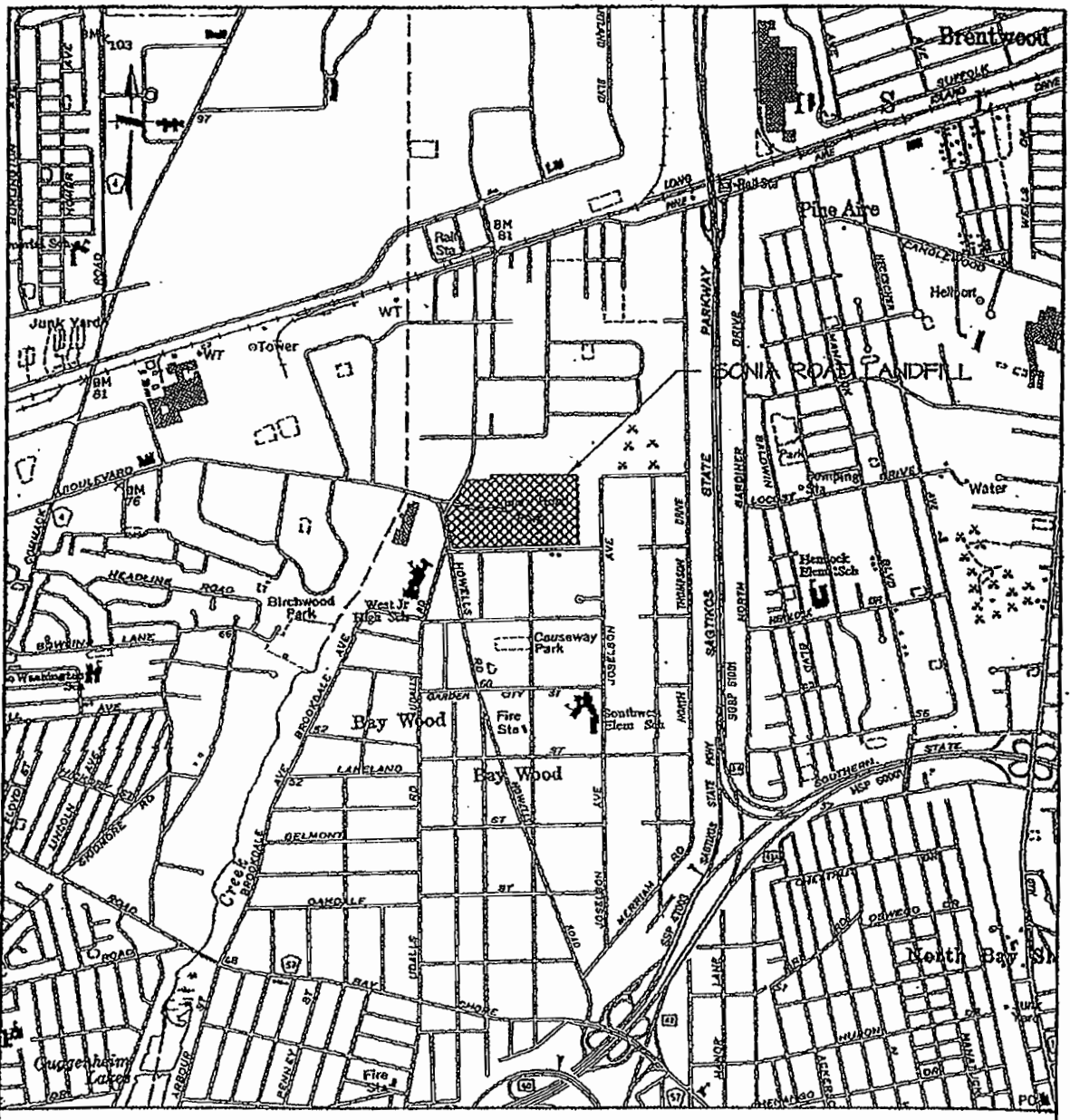
³ Well to be resurveyed.

⁴ Well needs to be resurveyed. The well casing was observed to be cut during the February 2010 sampling event.

⁵ Well could not be located during the February 2010 sampling event.

FIGURES

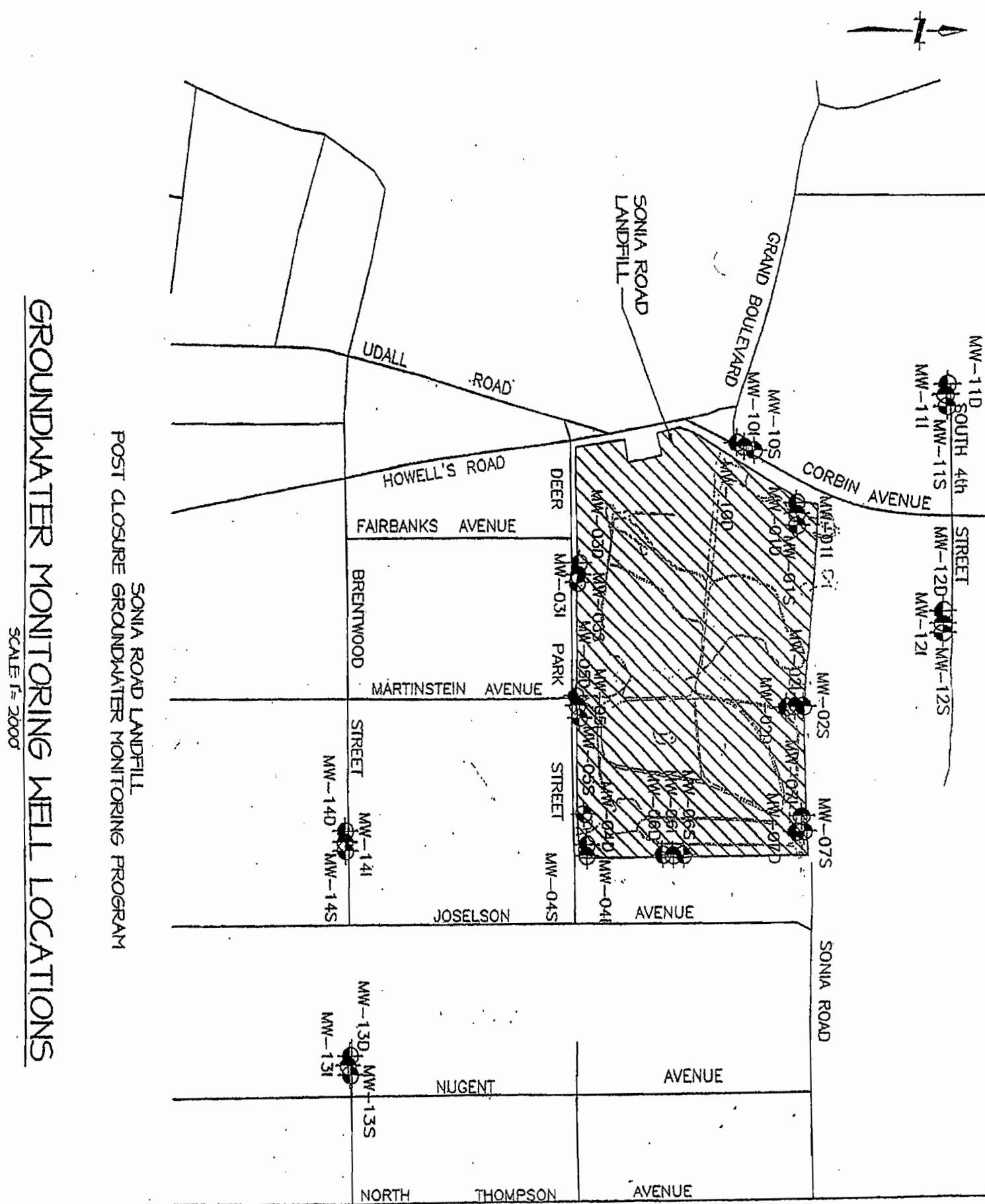
2:15:15 Town of [illegible] (Sonia Rd Landfill) 01-DRAFT REPORT Site Figures Figure Long Last Modified Apr 13, 2007 - 11:17am Plot



SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

SITE LOCATION MAP
SCALE 1" = 2000'

FIGURE 1



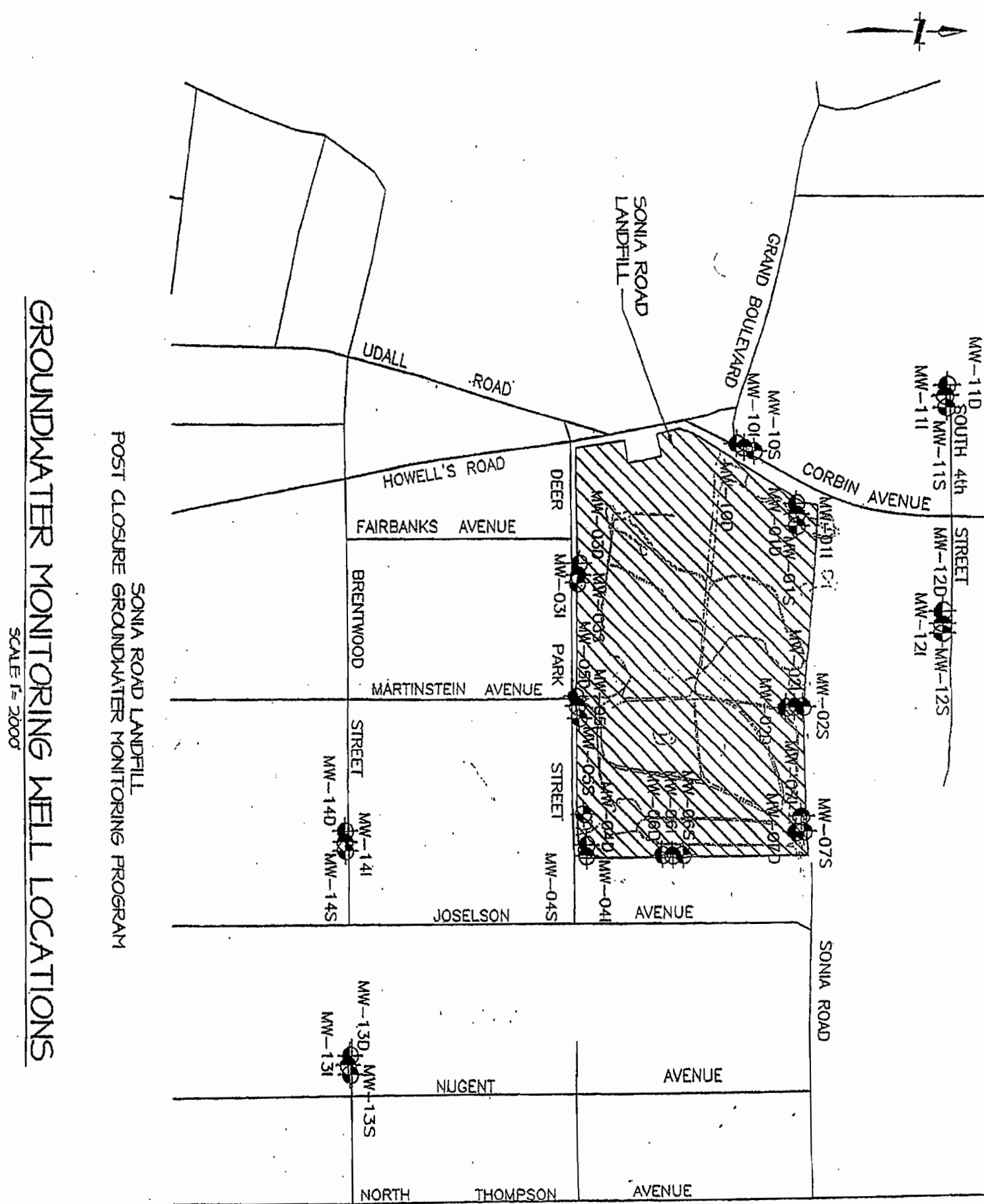
GROUNDWATER MONITORING WELL LOCATIONS

SCALE: 1" = 2000'

FIGURE 2

H2M-GROUP

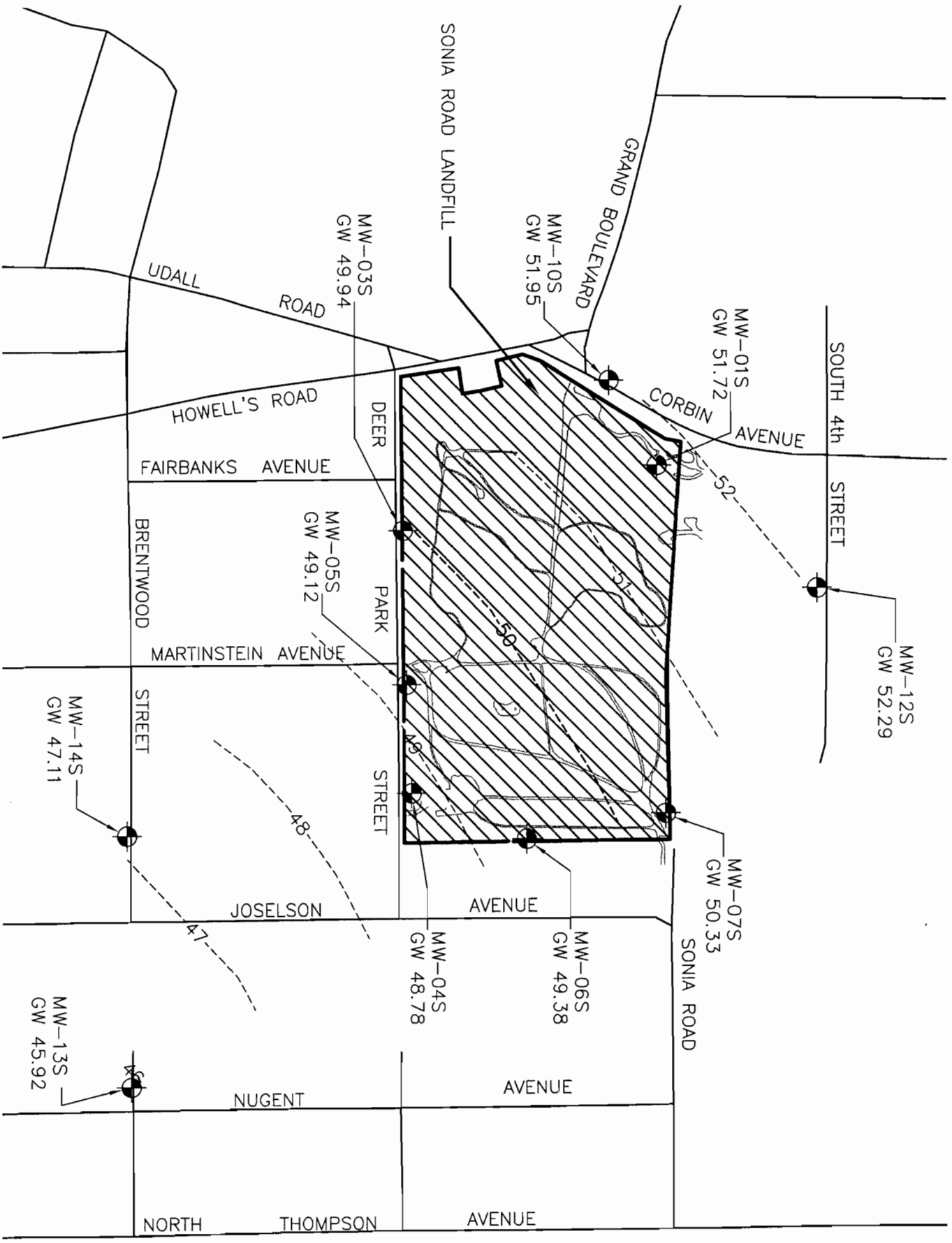
ENGINEERS • ARCHITECTS • PLANNERS • SCIENTISTS • SURVEYORS
MELVILLE, N.Y. TOTOWA, N.J.



H2M-Group

ENGINEERS • ARCHITECTS • PLANNERS • SCIENTISTS • SURVEYORS
MELVILLE, N.Y. TOTOWA, N.J.

FIGURE 2



- LEGEND**
- MW-11S  MONITORING WELL LOCATION AND DESIGNATION
 - GW 5173  GROUNDWATER ELEVATION, IN FEET MSL
 - 50  GROUNDWATER ELEVATION CONTOUR, IN FEET MSL



FIGURE 3
SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER
MONITORING PROGRAM

WATER TABLE ELEVATION CONTOUR MAP

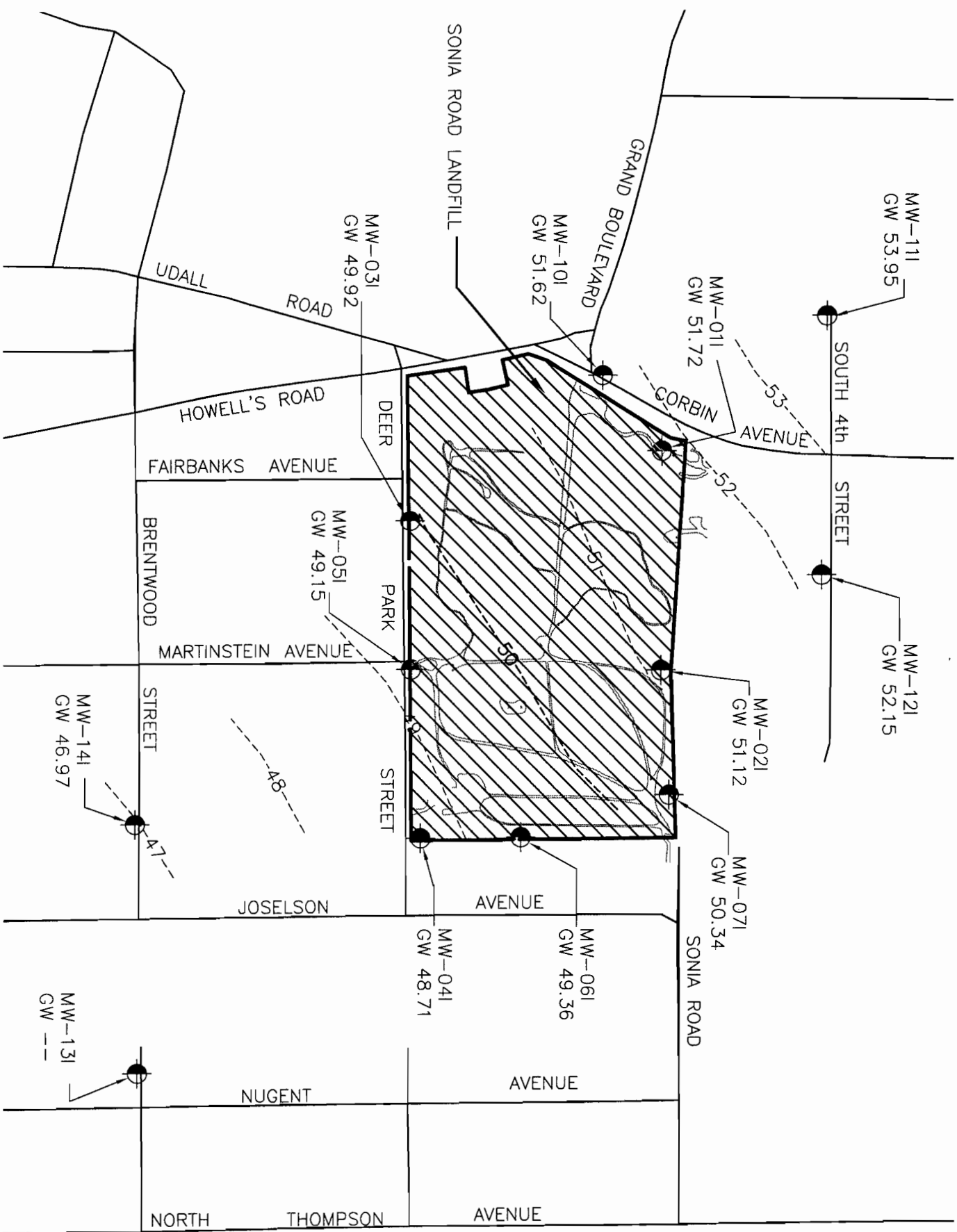
TOWN OF ISLP, SUFFOLK COUNTY, NEW YORK
SCALE 1" = 500' PROJECT No. ISLP-1001 DATE: FEB. 2010

H2M GROUP
ENGINEERS • ARCHITECTS • PLANNERS • SCIENTISTS • SURVEYORS

HOLZMACHER, MCLENDON & MURRELL, P.C.
575 Broad Hollow Road, Melville, New York 11747

MELVILLE, N.Y. ■ (631)-756-8000
TOTOWA, N.J. ■ (973)-942-0700

E-mail: h2mh2n.com
www.h2m.com



LEGEND

MW-11 MONITORING WELL LOCATION AND DESIGNATION

GW 5129 GROUNDWATER ELEVATION, IN FEET MSL

50 GROUNDWATER ELEVATION CONTOUR, IN FEET MSL

FIGURE 4

SONIA ROAD LANDFILL

POST CLOSURE GROUNDWATER

MONITORING PROGRAM

POTENTIOMETRIC SURFACE ELEVATION

CONTOUR MAP FOR INTERMEDIATE ZONE

TOWN OF ISLP, SUFFOLK COUNTY, NEW YORK

SCALE 1" = 500' PROJECT No. ISLP-1001 DATE: FEB. 2010

H2M GROUP

HOLZMACHER, McLENDON & MURRELL, P.C.

676 Broad Hollow Road, Melville, New York 11747

MELVILLE, N.Y. ■

(631)-756-8000

TOTOWA, N.J. □

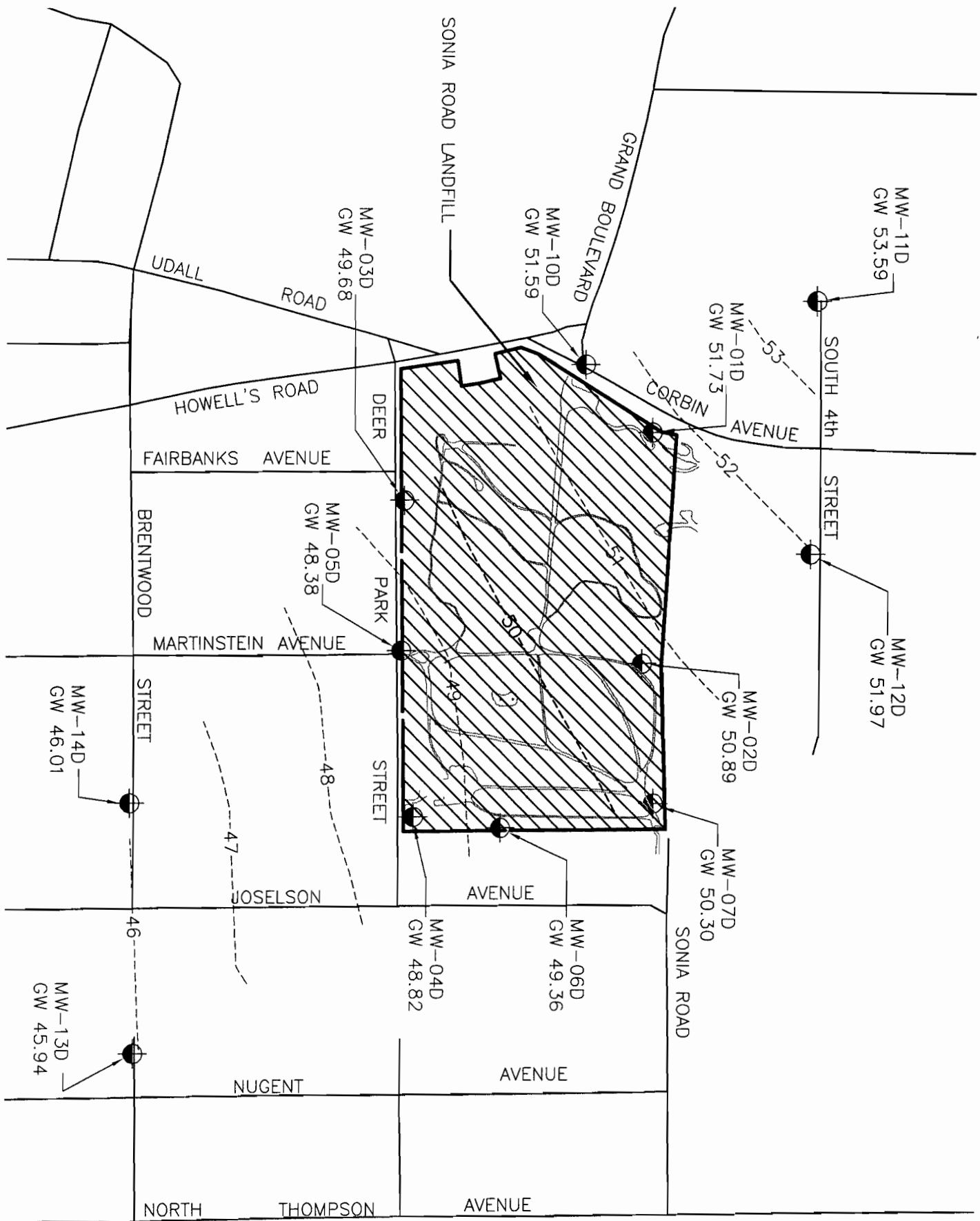
(973)-942-0700

ENGINEERS & ARCHITECTS & PLANNERS & SCIENTISTS & SURVEYORS

E-mail: h2m@h2m.com

www.h2m.com





- LEGEND**
- MW-ID MONITORING WELL LOCATION AND DESIGNATION
 - GW 63.11 GROUNDWATER ELEVATION, IN FEET MSL
 - 60 GROUNDWATER ELEVATION CONTOUR, IN FEET MSL

FIGURE 6
SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER
MONITORING PROGRAM
POTENTIOMETRIC SURFACE ELEVATION
CONTOUR MAP FOR DEEP ZONE

TOWN OF ISLP, SUFFOLK COUNTY, NEW YORK
SCALE 1" = 500'
PROJECT No. ISLP-1001
DATE: FEB. 2010

H2M GROUP
ENGINEERS ARCHITECTS PLANNERS SCIENTISTS SURVEYORS

HOLZMACHER, MCLENDON & MURRELL, P.C.
576 Broad Hollow Road, Melville, New York 11747
TEL: 756-8000
FAX: 756-8000
WWW.H2MGROUP.COM

TOTOWA, N.J. □
(973)-942-0700

APPENDIX A

HISTORIC DATA TABLES AND GRAPHS

APPENDIX A-1

Leachate Indicator Parameters

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-01D 10/24/97 (mg/l)	MW-01D 11/30/2000 (mg/l)	MW-01D 01/30/2001 (mg/l)	MW-01D 8/21/02 (mg/l)	MW-01D 11/20/02 (mg/l)	MW-01D 3/5/03 (mg/l)	MW-01D 6/3/03 (mg/l)	MW-01D 8/21/03 (mg/l)	MW-01D 11/10/03 (mg/l)	MW-01D 2/26/04 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	5 U	NS	30	NS	NS	20	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	11.4	37	43	41.6	51.3	44	66.2	66.1	63.4	60.5
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.36	0.46	0.49	0.21	0.33	2.31	0.49	0.10 U	0.10 U	0.60
Biochemical Oxygen Demand	-	-	(mg/l)	20	2 U	2 U	2 U	2 U	6	4	6	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	3 U	21.5	10.7	46.9	17.6	48.6	14.3	10 U	10 U	42.9
Chloride	250 ST	16887-00-6	(mg/l)	198	737	570	779	589	513	620	256	111	656
Hardness (as CaCO ₃)	-	-	(mg/l)	146	74	80	140	290	100	58	23	15	160
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.2	0.42	1	1.08	1.66	0.84	0.61	2.22	2.69	0.41
Phenols, total	0.001 ST	-	(mg/l)	0.0011	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	19.8	19.8	33.2	60.2	27.5	26.7	46.8	33	27.5	17.8
Total Organic Carbon	-	-	(mg/l)	2.3	2.3	2.4	1.5	5.7	6	1.4	3.8	1.1	1 U
Total Dissolved Solids	-	-	(mg/l)	452	1060	1500	1340	1160	950	1100	548	290	1040
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.2 U	0.59	0.660	0.42	1.37	3.24	0.53	0.33	0.34	0.52

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-01D 5/20/04 (mg/l)	MW-01D 8/19/04 (mg/l)	MW-01D 11/8/04 (mg/l)	MW-01D 2/28/05 (mg/l)	MW-01D 5/25/05 (mg/l)	MW-01D 8/24/05 (mg/l)	MW-01D 11/28/05 (mg/l)	MW-01D 2/24/06 (mg/l)	MW-01D 5/17/06 (mg/l)	MW-01D 8/8/06 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	NS	NS	5 U	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	53.6	38	36.8	30.8	32.6	42.1	53.2	55	55.2	52
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.82	0.1 U	1.14	1.32	1.6	1.2	1.28	0.88	0.8	0.78
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	19	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.8	0.5 U	0.5	0.6	0.7	0.5	0.5 U	0.6
Chemical Oxygen Demand	-	-	(mg/l)	70.3	122	31.1	88.5	23.5	43.5	969	57.2	67.3	78.9
Chloride	250 ST	16887-00-6	(mg/l)	656	896	292	1,280	1,310	1,050	1,160	1,210	1,140	1,370
Hardness (as CaCO ₃)	-	-	(mg/l)	260	184	220	196	176	136	128	135	125	145
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.56	1.82	0.51	0.6	0.92	1.34	0.98	0.73	0.5	1.31
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	30.2	46.5	46.2	44.2	46.8	44.8	34.3	44.2	35.3	53.8
Total Organic Carbon	-	-	(mg/l)	1.6	1 U	1.4	1.8	1.8	2	2.4	2.4	1.9	2
Total Dissolved Solids	-	-	(mg/l)	1,020	1,770	2,060	2,050	1,780	1,960	1,720	2,060	2,200	2,320
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.61	1.76	1.35	1.80	1.67	1.62	2.4	1.37	1.1	1.01

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration as determined by data validation

: Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-01D 1/12/06 (mg/l)	MW-01D 2/21/07 (mg/l)	MW-01D 5/25/07 (mg/l)	MW-01D 8/17/07 (mg/l)	MW-01D 11/9/07 (mg/l)	MW-01D 02/11/08 (mg/l)	MW-01D 5/15/08 (mg/l)	MW-01D 8/5/08 (mg/l)	MW-01D 11/3/08 (mg/l)	MW-01D 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)	5	20	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	77.0	55.2	48.2	34.9	33.4	38.3	42.8	38.8	32.7	30.4
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.68	0.10 U	0.37	0.98	0.57	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	10	2 U	2 U	6	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	67.3	38.3	71.6	66.2	107	39.2	10 U	10 U	86.3	10 U
Chloride	250 ST	16887-00-6	(mg/l)	1,510	689	1,730	1,430	49.5	709	366	195	182	144
Hardness (as CaCO ₃)	-	-	(mg/l)	200	120	240	180	22.0	80.0	46.0	19.0	26.0	20.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.58	0.61	2.8	4.25	0.10 U	12.2	12.0	11.0	11.5	14.9
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	84	36.3	81.6	75.0	5.0 U	42.8	20.9	14.8	7.32	10.6
Total Organic Carbon	-	-	(mg/l)	2.5	11.5	2.5	1.4	12.7	1.0	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	2,840	1,240	2,730	2,350	212	1190	729	446	399	388
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.49	3.65	1.66	1.01	3.65	0.68	0.30	0.1 U	0.1 U	0.1 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-01D 8/12/09 (mg/l)	MW-01D 2/4/10 (mg/l)
Color (APHA Units)	-	-	(units)	5	30
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	22.9	25.6
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	18.2	10 U
Chloride	250 ST	16887-00-6	(mg/l)	104	37.1
Hardness (as CaCO ₃)	-	-	(mg/l)	15.0	56.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	11.4	4.43
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	12.5
Sulfate	250 ST	14808-79-8	(mg/l)	16.9	5 U
Total Organic Carbon	-	-	(mg/l)	1	2.7
Total Dissolved Solids	-	-	(mg/l)	279	136
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1	0.65 U

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration as determined by data validation.

: Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-011 10/24/97 (mg/l)	MW-011 11/30/2000 (mg/l)	MW-011 01/30/2001 (mg/l)	MW-011 8/21/02 (mg/l)	MW-011 11/20/02 (mg/l)	MW-011 3/5/03 (mg/l)	MW-011 6/3/03 (mg/l)	MW-011 8/21/03 (mg/l)	MW-011 11/10/03 (mg/l)	MW-011 2/26/04 (mg/l)
Color (APHA Units)	-	-	(units)	NS	5 U	5 U	NS	5	NS	NS	10	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	20.7	65.6	50	14.8	23.4	65.8	58.7	63.8	50	34.8
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.9	0.24	0.63	0.15	0.1 U	0.45	0.25	0.1 U	0.93	1.53
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2	2 U	2 U	2 U	2 U	8	7	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1	0.5 U	1.3	1 U
Chemical Oxygen Demand	-	-	(mg/l)	3 U	10 U	10 U	12.7	10 U	30	10 U	16.8	11.9	13.1
Chloride	250 ST	16887-00-6	(mg/l)	195	34.6	72	16.4	68.7	59.5	13.1	122	96.7	98.8
Hardness (as CaCO ₃)	-	-	(mg/l)	42	5	30	40	32	80	14	48	106	140
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.72	0.53	1.3	2.74	0.6	0.1 U	0.1 U	0.91	0.79	0.26
Phenols, total	0.001 ST	-	(mg/l)	0.0010 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	35.2	10.2	5 U	5 U	12.1	23.4	9.2	5 U	9.6	7.7
Total Organic Carbon	-	-	(mg/l)	2.8	1.7	0.99 J	1.4	1 U	1.4	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	356	179	310	86	310	201	87	307	214	291.0
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.2 U	0.35	1.16	0.21	0.45	0.7	0.23	0.84	1.41	1.12

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-011 5/20/04 (mg/l)	MW-011 8/19/04 (mg/l)	MW-011 11/8/04 (mg/l)	MW-011 2/28/05 (mg/l)	MW-011 5/25/05 (mg/l)	MW-011 8/24/05 (mg/l)	MW-011 11/28/05 (mg/l)	MW-011 2/24/06 (mg/l)	MW-011 5/17/06 (mg/l)	MW-011 8/8/06 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	NS	NS	5 U	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	42.6	37.6	39.2	29.4	28.4	17.6	22.6	27.8	25.2	39.6
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.55	0.1 U	0.1 U	0.1 U	1.24	0.92	1.02	0.77	0.6	0.72
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2	2
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.9	1.1	1.4	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	16.8	14.3	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	21.9	31.2	26.9	29.6	20.3	15.5	16	17.2	15.3	19.2
Hardness (as CaCO ₃)	-	-	(mg/l)	22	15	26	92	40	31	32	25	26	50
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.55	1.63	1.88	1.41	0.1 U	0.74	0.5	0.12	0.62	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	9.8	5 U	5 U	6.2	8.9	11.2	14	11.3	6.5	6.5
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1 U	1.2	1.2	1.1	1	1 U
Total Dissolved Solids	-	-	(mg/l)	157	119	125	121	140	169	119	92	79	97
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.84	0.59	0.56	0.30	1.59	1.15	2.03	1.03	0.8	1.22

NOTES:

N/A: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-011 11/28/06 (mg/l)	MW-011 2/21/07 (mg/l)	MW-011 5/25/07 (mg/l)	MW-011 8/15/07 (mg/l)	MW-011 11/9/07 (mg/l)	MW-011 2/11/08 (mg/l)	MW-011 5/15/08 (mg/l)	MW-011 8/5/08 (mg/l)	MW-011 11/3/08 (mg/l)	MW-011 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	37.4	25.5	25.2	24.3	14.8	15	12.8	17.7	13.6	7.95
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.65	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	3	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	13	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	16.7	20.7	19.7	14.6	12.1	30.9	35.6	5.90	5.12	4.86
Hardness (as CaCO ₃)	-	-	(mg/l)	55.0	50.0	50.0	42.0	35	46	50.0	28.0	24.0	130
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.30	1.01	1.11	1.82	2.66	0.1 U	0.1 U	1.77	1.38	0.83
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	14.3	16.2	14.6	15.0	17.4	11.9	19.4	14.7	18.4	18.4
Total Organic Carbon	-	-	(mg/l)	1 U	2.4	1.5	1 U	1.4	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	100	90	95	94	96	89	134	77	53	58
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.10	0.97	0.94	1.53	0.58	0.93	0.72	0.77	0.20	0.34

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-011 8/12/09 (mg/l)	MW-011 2/4/10 (mg/l)
Color (APHA Units)	-	-	(units)	5	10
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	10.0	8.90
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10	10 U
Chloride	250 ST	16887-00-6	(mg/l)	6.97	8.25
Hardness (as CaCO ₃)	-	-	(mg/l)	24.0	25.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.94	1.27
Phenols, total	0.001 ST	-	(mg/l)	24.0	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	21.9	13.2
Total Organic Carbon	-	-	(mg/l)	1	1 U
Total Dissolved Solids	-	-	(mg/l)	58	63
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.13	0.55 U

NOTES:

NA. Not analyzed

U. Analyzed for but not detected, value shown is instrument detection limit

J. Estimated value

U/* Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation.

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-01S 10/24/97 (mg/l)	MW-01S 11/30/2000 (mg/l)	MW-01S 01/29/2001 (mg/l)	MW-01S 8/21/02 (mg/l)	MW-01S 11/20/02 (mg/l)	MW-01S 3/5/03 (mg/l)	MW-01S 6/3/03 (mg/l)	MW-01S 8/21/03 (mg/l)	MW-01S 11/10/03 (mg/l)	MW-01S 2/26/04 (mg/l)
Color (APHA Units)	-	-	(units)	80	50	50	NS	50	NS	NS	20	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	264	183	180	126	211	177	151	161	165	192
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1	2.1	2.2	1.46	2.03	1.04	0.93	0.1 U	1.57	0.44
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	6	2 U	2 U	2 U	4	8	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.7	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5.1	1 U
Chemical Oxygen Demand	-	-	(mg/l)	46	29.6	10.7	22.5	29.8	83.2	10 U	21.6	38.6	33
Chloride	250 ST	16887-00-6	(mg/l)	69.7	28.4	42	36.6	40.9	60.7	131	65.8	158	56.6
Hardness (as CaCO ₃)	-	-	(mg/l)	310	140	200	240	520	200	270	320	460	54
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.1 U	0.080 J	0.1 U	0.1 U	0.1 U	0.12	0.55	0.1 U	0.26
Phenols, total	0.001 ST	-	(mg/l)	0.0010 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	36.3	50	42.5	78	89	117	108	188	282	140
Total Organic Carbon	-	-	(mg/l)	11.7	6	9.1	4.8	5.1	6.9	4.3	5.6	8.3	7.4
Total Dissolved Solids	-	-	(mg/l)	432	259	310	250	420	74	506	534	690	498
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	2.3	1.9	3.3	1.26	2.11	1.21	0.84	0.85	1.72	0.77

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-01S 5/20/04 (mg/l)	MW-01S 8/19/04 (mg/l)	MW-01S 11/8/04 (mg/l)	MW-01S 2/28/05 (mg/l)	MW-01S 5/25/05 (mg/l)	MW-01S 8/24/05 (mg/l)	MW-01S 11/28/05 (mg/l)	MW-01S 2/24/06 (mg/l)	MW-01S 5/17/06 (mg/l)	MW-01S 8/8/06 (mg/l)
Color (APHA Units)	-	-	(units)	20	NS	NS	20	NS	171	160	121	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	184	127	150	171	174	160	121	257	204	190
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.15	0.1 U	0.24	0.27	0.37	0.22	0.16	0.18	0.29	0.27
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	10	2 U	2 U	2 U	4	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.8	1.8	1.4	1.2	0.5 U	0.5 U	0.7	0.5	0.7
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	15.6	36.8	26.8	24.3	10 U	41.2	38.7	16
Chloride	250 ST	16887-00-6	(mg/l)	72.1	73.2	83.9	82.9	118	69.2	48.4	85.3	103	78.2
Hardness (as CaCO ₃)	-	-	(mg/l)	750	190	248	300	290	250	196	330	280	260
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.61	0.11	0.1 U	0.1 U	0.12	0.74	0.19	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	130	104	140	98.5	87	88.5	86	76	108	98
Total Organic Carbon	-	-	(mg/l)	6.6	5.2	6.1	6.4	7.2	9.2	5.4	13.1	11.1	9.3
Total Dissolved Solids	-	-	(mg/l)	477	455	497	468	491	545	344	572	550	472
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.07	1.09	0.68	0.47	0.56	2.83	1.24	0.49	0.51	0.49

NOTES:

NA Not analyzed

U- Analyzed for but not detected, value shown is instrument detection limit

J- Estimated value

U)* Value was not detected above quantitation limit but was an approximate concentration

: Concentration exceeds Standard/Guidance Value

J*- Value is an approximate concentration of the analyte in the sample as determined by data validation.

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-01S 11/28/06 (mg/l)	MW-01S 2/21/07 (mg/l)	MW-01S 5/25/07 (mg/l)	MW-01S 8/15/07 (mg/l)	MW-01S 11/9/07 (mg/l)	MW-01S 2/11/08 (mg/l)	MW-01S 5/15/08 (mg/l)	MW-01S 8/5/08 (mg/l)	MW-01S 11/3/08 (mg/l)	MW-01S 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)	70	30	NA	NA	NA	NA	NA	NA	60.0	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	198	242	181	200	173	192	152	170	170	146
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.33	0.10 U	0.10 U	0.33	0.17	0.1 U	0.1 U	0.34	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	5	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	21.1	40.9	33.3	40.9	28.2	31.7	11.9	26.8	26.8	10 U
Chloride	250 ST	16887-00-6	(mg/l)	78.1	69.3	125	90.8	86.0	57.1	81.0	70.8	61.8	59.1
Hardness (as CaCO ₃)	-	-	(mg/l)	320	360	280	270	18.0	230	188	240	200	280
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.19	0.36	0.10 U	0.10 U	0.27	0.1 U	0.20	0.1 U	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	177	141	71.8	56	46.9	65.7	48.0	111	62.7	61.7
Total Organic Carbon	-	-	(mg/l)	10.1	12.0	9.6	9.4	6.8	8.4	6.1	9.7	7.8	6.0
Total Dissolved Solids	-	-	(mg/l)	604	562	498	459	395	379	386	477	365	329
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.84	1.38	1.35	1.26	0.75	0.54	0.50	0.68	0.48	0.41

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-01S 8/12/09 (mg/l)	MW-01S 2/4/10 (mg/l)
Color (APHA Units)	-	-	(units)	50	20
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	168	157
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	32.7	19.4
Chloride	250 ST	16887-00-6	(mg/l)	106	46.4
Hardness (as CaCO ₃)	-	-	(mg/l)	200	170
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.14	0.33
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	86.0	47.1
Total Organic Carbon	-	-	(mg/l)	8.6	6.8
Total Dissolved Solids	-	-	(mg/l)	421	322
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.81	0.74 U

NOTES:

NA Not analyzed

U Analyzed for but not detected, value shown is instrument detection limit

J- Estimated value

UJ* Value was not detected above quantitation limit but was an approximate concentration

. Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE: DATE UNITS:	MW-02D 12/11/97 (mg/l)	MW-02D 12/01/2000 (mg/l)	MW-02D 01/30/2001 (mg/l)	MW-02D 8/21/02 (mg/l)	MW-02D 11/20/02 (mg/l)	MW-02D 3/5/03 (mg/l)	MW-02D 6/3/03 (mg/l)	MW-02D 8/22/03 (mg/l)	MW-02D 11/11/03 (mg/l)	MW-02D 2/27/04 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	5 U	NS	5	NS	NS	5 U	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	10.2	13.8	14	10.5	11.9	13.6	13.5	13.6	12.4	13
Ammonia (as N)	-	7664-41-7	(mg/l)	0.24	0.2	0.22	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	2 ST	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	4	11	2 U	8
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	0.5	1 U
Chemical Oxygen Demand	-	-	(mg/l)	15 U	73	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	9.4	5.2	5.5	4.3	6.4	7.3	8.6	6.3	5.4	8.5
Hardness (as CaCO ₃)	-	-	(mg/l)	30	30	68	34	40	24	36	100	42	48
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.4	1.2	1	0.69	1.48	1.49	1.45	1.47	1.62	1.51
Phenols, total	0.001 ST	-	(mg/l)	0.0010 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	12.6	5 U	8.2	18.6	19.2	18.9	16.1	18.3	19.8	17.9
Total Organic Carbon	-	-	(mg/l)	0.7	1 U	0.88 J	1.2	1 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	76	96	80	60	110	80	73	91	69	139
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.23	0.19	0.340	0.1 U	0.1 U	0.18	0.1 U	0.1 U	0.1 U	0.1 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE: DATE UNITS:	MW-02D 5/20/04 (mg/l)	MW-02D 8/20/04 (mg/l)	MW-02D 11/8/04 (mg/l)	MW-02D 2/28/05 (mg/l)	MW-02D 5/26/05 (mg/l)	MW-02D 8/24/05 (mg/l)	MW-02D 11/29/05 (mg/l)	MW-02D 2/28/06 (mg/l)	MW-02D 5/18/06 (mg/l)	MW-02D 8/10/06 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	NS	NS	5 U	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	13.9	14.2	14.2	11.6	11	11.1	11.5	24.7	12.6	11.3
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.10 U	0.36	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2.0 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.8	0.5	0.8	0.7	0.5	0.5 U	0.6
Chemical Oxygen Demand	-	-	(mg/l)	13.1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	6.4	7.3	7	9.8	9.1	9.4	8.6	8.4	7.7	7.8
Hardness (as CaCO ₃)	-	-	(mg/l)	110	18	39	38	40	37	39	48	33	35
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.69	1.36	1.38	1.35	1.35	1.31	1.25	1.2	1.32	1.2
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	25.6	20.3	20.1	22.2	8.8	18.6	18.2	17.7	17.9	19.3
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	88	83	95	81	88	137	48	79	67	81
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.27	0.11	0.21	0.14	0.1 U	0.1 U	0.1	0.34	0.12	0.64

NOTES

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

 Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS	MW-02D 1/30/06 (mg/l)	MW-02D 2/22/07 (mg/l)	MW-02D 5/25/07 (mg/l)	MW-02D 8/14/07 (mg/l)	MW-02D 11/13/07 (mg/l)	MW-02D 2/12/08 (mg/l)	MW-02D 5/19/08 (mg/l)	MW-02D 8/4/08 (mg/l)	MW-02D 11/13/08 (mg/l)	MW-02D 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	9.3	8.2	7.8	8.4	7.2	8.6	6.7	6.9	6.85	6.85
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	6.3	6.7	5.8	5.6	6.2	5.7	4.86	4.66	4.98	4.64
Hardness (as CaCO ₃)	-	-	(mg/l)	28	40.0	25	26	22	28	22.0	21.0	22.0	120
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.64	0.44	0.31	0.34	0.30	0.14	0.1 U	0.1 U	0.18	0.11
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	17.9	19.3	19.3	19.1	13.4	17.0	16.1	15.3	14.7	11.7
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.3	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	61	67	59	62	51	68	55	53	47	42
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.18	0.55	0.50	0.50	0.16	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS	MW-02D 8/14/09 (mg/l)	MW-02D 2/8/10 (mg/l)
Color (APHA Units)	-	-	(units)	5	5
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	8.30	7.60
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	11.3	5.38
Hardness (as CaCO ₃)	-	-	(mg/l)	23.0	19.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.45	0.46
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	17.5	11.3
Total Organic Carbon	-	-	(mg/l)	1	1 U
Total Dissolved Solids	-	-	(mg/l)	62	56
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.23

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

: Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-021 10/27/97 (mg/l)	MW-021 12/01/2000 (mg/l)	MW-021 01/30/2001 (mg/l)	MW-021 8/21/02 (mg/l)	MW-021 11/20/02 (mg/l)	MW-021 3/7/03 (mg/l)	MW-021 6/3/03 (mg/l)	MW-021 8/21/03 (mg/l)	MW-021 11/11/03 (mg/l)	MW-021 2/26/04 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	9.3	4.5	10	NS	NS	10	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	12.3	9	12.3	16.2	17.2	7.4	7.5	9.1	9.4	9.4
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.65	9.1	0.64	0.10 U	0.10 U	0.29	0.10 U	0.10 U	0.10 U	0.10 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	3	7	3	3
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Chemical Oxygen Demand	-	-	(mg/l)	15 U	56.7	10 U	12.7	10 U	14	10 U	10 U	10 U	28
Chloride	250 ST	16887-00-6	(mg/l)	10	12.8	15	10.8	3.8	14	6.2	8.2	11.1	14.7
Hardness (as CaCO ₃)	-	-	(mg/l)	26	34	80	32	90	44	46	42	40	44
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.9	2.2	2.4	2.39	2.56	1.68	1.92	2.72	2.82	2.28
Phenols, total	0.001 ST	-	(mg/l)	0.0010 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	32.9	5.4	7.80	10.3	13.8	25.1	27.7	16.6	13.9	15
Total Organic Carbon	-	-	(mg/l)	1.5	1.5	1.1	1.3	1.3	3.2	2.3	1.1	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	103	88	99	58	97	83	82	112	74	69
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.8	9	1.20	0.1 U	0.28	1.45	0.66	0.26	0.46	0.36

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-021 5/20/04 (mg/l)	MW-021 8/20/04 (mg/l)	MW-021 11/8/04 (mg/l)	MW-021 2/28/05 (mg/l)	MW-021 5/26/05 (mg/l)	MW-021 8/24/05 (mg/l)	MW-021 11/29/05 (mg/l)	MW-021 2/28/06 (mg/l)	MW-021 5/18/06 (mg/l)	MW-021 8/10/06 (mg/l)
Color (APHA Units)	-	-	(units)	20	NS	NS	5 U	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	32.1	10.2	17.8	8.8	8.3	7.4	6.4	9.1	17	25.4
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.23	0.1 U	0.1 U	0.71	0.66	0.42	0.85	0.65	0.33	0.27
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	8	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	1	0.8	0.5 U	0.9	0.9	1.1	0.5	0.5 U	0.5
Chemical Oxygen Demand	-	-	(mg/l)	23	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	8.3	11.4	11.3	11.4	12.4	15	26.4	31.4	38.2	24.3
Hardness (as CaCO ₃)	-	-	(mg/l)	110	25	39	34	36	37	42	39	53	64
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	2.19	3.04	3.03	2.28	2.19	1.96	1.9	2.05	1.4	1.76
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	27.2	19.4	16.5	16	15.3	17.1	8.5	7.8	27.2	33.5
Total Organic Carbon	-	-	(mg/l)	5.7	1 U	1.3	1 U	1 U	1.2	1 U	1.2	1 U	1.2
Total Dissolved Solids	-	-	(mg/l)	127	111	87	80	90	129	81	109	134	135
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.02	0.86	0.92	0.84	0.64	0.64	0.86	0.84	1.06	0.46

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate content

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

Appendix A-1

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-021 11/30/06 (mg/l)	MW-021 2/22/07 (mg/l)	MW-021 5/25/07 (mg/l)	MW-021 8/14/07 (mg/l)	MW-021 11/13/07 (mg/l)	MW-021 2/12/08 (mg/l)	MW-021 5/19/08 (mg/l)	MW-021 8/4/08 (mg/l)	MW-021 11/3/08 (mg/l)	MW-021 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	31.4	20.9	31.0	41.0	49.8	35.0	34.0	34.7	30.1	23.2
Ammonia (as N)	-	7664-41-7	(mg/l)	0.53	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.18
Biochemical Oxygen Demand	2 ST	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10.35	10.1 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	36.8	37.9	35.4	40.3	28.3	16.2	19.1	15.2	14.8	16.5
Hardness (as CaCO ₃)	-	-	(mg/l)	76.0	64.0	68.0	68.0	54	54	45.0	40.0	38.0	120
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.62	1.74	0.84	1.2	0.93	1.96	0.1 U	1.58	1.47	2.03
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	18.4	23.6	46.6	32.1	24.4	12.8	9.05	8.07	8.98	13.4
Total Organic Carbon	-	-	(mg/l)	1.2	1.3	1.8	1.4	2.3	1 U	1 U	1.1	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	129	159	146	194	139	95	101	86	73	86
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.82	0.71	0.69	0.68	1.92	0.13	0.14	0.50	0.51	0.25

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-021 8/14/09 (mg/l)	MW-021 2/8/10 (mg/l)
Color (APHA Units)	-	-	(units)	5	5
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	28.1	29.6
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10	10 U
Chloride	250 ST	16887-00-6	(mg/l)	26.7	20.0
Hardness (as CaCO ₃)	-	-	(mg/l)	44.0	42.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.35	1.80
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	23.4
Sulfate	250 ST	14808-79-8	(mg/l)	19.1	9.82
Total Organic Carbon	-	-	(mg/l)	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	103	105
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.13	1.74

NOTES

NA Not analyzed

U. Analyzed for but not detected, value shown is instrument detection limit

J Estimated value

UJ* Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE	UNIT	MW-02S 10/27/97 (mg/l)	MW-02S 11/30/2000 (mg/l)	MW-02S 01/31/2001 (mg/l)	MW-02S 8/21/02 (mg/l)	MW-02S 11/20/02 (mg/l)	MW-02S 3/5/03 (mg/l)	MW-02S 6/3/03 (mg/l)	MW-02S 8/21/03 (mg/l)	MW-02S 11/11/03 (mg/l)	MW-02S 2/26/04 (mg/l)
Color (APHA Units)	-	-	UNITS	(mg/l)	5 U	5 U	5 U	NS	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	(mg/l)	86.6	86.2	85	NS	NS	NS	NS	NS	NS	NS
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	(mg/l)	0.08	1.5	1.1	NS	NS	NS	NS	NS	NS	NS
Biochemical Oxygen Demand	-	-	(mg/l)	(mg/l)	2 U	2 U	2	NS	NS	NS	NS	NS	NS	NS
Bromide	2 GV	24959-67-9	(mg/l)	(mg/l)	0.5 U	0.5 U	0.5 U	NS	NS	NS	NS	NS	NS	NS
Chemical Oxygen Demand	-	-	(mg/l)	(mg/l)	15 U	10 U	10 U	NS	NS	NS	NS	NS	NS	NS
Chloride	250 ST	16887-00-6	(mg/l)	(mg/l)	21.2	9.5	10	NS	NS	NS	NS	NS	NS	NS
Hardness (as CaCO ₃)	-	-	(mg/l)	(mg/l)	92	88	120	NS	NS	NS	NS	NS	NS	NS
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	(mg/l)	0.82	2.4	1.8	NS	NS	NS	NS	NS	NS	NS
Phenols, total	0.001 ST	-	(mg/l)	(mg/l)	0.0010 U	0.005 U	0.005 U	NS	NS	NS	NS	NS	NS	NS
Sulfate	250 ST	14808-79-8	(mg/l)	(mg/l)	20.9	26.6	19.2	NS	NS	NS	NS	NS	NS	NS
Total Organic Carbon	-	-	(mg/l)	(mg/l)	2.2	1.6	2.7	NS	NS	NS	NS	NS	NS	NS
Total Dissolved Solids	-	-	(mg/l)	(mg/l)	171	138	170	NS	NS	NS	NS	NS	NS	NS
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	(mg/l)	0.2	1.4	1.1	NS	NS	NS	NS	NS	NS	NS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE	UNIT	MW-02S 5/20/04 (mg/l)	MW-02S 8/20/04 (mg/l)	MW-02S 11/8/04 (mg/l)	MW-02S 2/28/05 (mg/l)	MW-02S 5/26/05 (mg/l)	MW-02S 8/24/05 (mg/l)	MW-02S 11/29/05 (mg/l)	MW-02S 2/28/06 (mg/l)	MW-02S 5/18/06 (mg/l)	MW-02S 8/10/06 (mg/l)
Color (APHA Units)	-	-	UNITS	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Biochemical Oxygen Demand	-	-	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Bromide	2 GV	24959-67-9	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chemical Oxygen Demand	-	-	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chloride	250 ST	16887-00-6	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Hardness (as CaCO ₃)	-	-	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Phenols, total	0.001 ST	-	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sulfate	250 ST	14808-79-8	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total Organic Carbon	-	-	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total Dissolved Solids	-	-	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	(mg/l)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ: Value was not detected above quantitation limit but was an approximate concentration

 Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-02S 11/30/06 (mg/l)	MW-02S 2/22/07 (mg/l)	MW-02S 5/25/07 (mg/l)	MW-02S 8/14/07 (mg/l)	MW-02S 11/13/07 (mg/l)	MW-02S 5/19/08 (mg/l)	MW-02S 8/4/08 (mg/l)	MW-02S 11/3/08 (mg/l)	MW-02S 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)									
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	A	A	A	A	A	A	A	A	A
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	B	B	B	B	B	B	B	B	B
Biochemical Oxygen Demand	-	-	(mg/l)	A	A	A	A	A	A	A	A	A
Bromide	2 GV	24959-67-9	(mg/l)	N	N	N	N	N	N	N	N	N
Chemical Oxygen Demand	-	-	(mg/l)	D	D	D	D	D	D	D	D	D
Chloride	250 ST	16887-00-6	(mg/l)	O	O	O	O	O	O	O	O	O
Hardness (as CaCO ₃)	-	-	(mg/l)	N	N	N	N	N	N	N	N	N
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	E	E	E	E	E	E	E	E	E
Phenols, total	0.001 ST	-	(mg/l)	D	D	D	D	D	D	D	D	D
Sulfate	250 ST	14808-79-8	(mg/l)									
Total Organic Carbon	-	-	(mg/l)									
Total Dissolved Solids	-	-	(mg/l)									
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)									

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-02S 8/14/09 (mg/l)	MW-02S (mg/l)
Color (APHA Units)	-	-	(units)		
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	A	A
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	B	B
Biochemical Oxygen Demand	-	-	(mg/l)	A	A
Bromide	2 GV	24959-67-9	(mg/l)	N	N
Chemical Oxygen Demand	-	-	(mg/l)	D	D
Chloride	250 ST	16887-00-6	(mg/l)	O	O
Hardness (as CaCO ₃)	-	-	(mg/l)	N	N
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	E	E
Phenols, total	0.001 ST	-	(mg/l)	D	D
Sulfate	250 ST	14808-79-8	(mg/l)		
Total Organic Carbon	-	-	(mg/l)		
Total Dissolved Solids	-	-	(mg/l)		
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)		

NOTES:

NA Not analyzed

U Analyzed for but not detected, value shown is instrument detection limit

J Estimated value

UJ* Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-03S 10/30/97 (mg/l)	MW-03S 12/06/2000 (mg/l)	MW-03S 02/02/2001 (mg/l)	MW-03S 8/22/02 (mg/l)	MW-03S 1/12/02 (mg/l)	MW-03S 3/7/03 (mg/l)	MW-03S 6/5/03 (mg/l)	MW-03S 8/25/03 (mg/l)	MW-03S 11/13/03 (mg/l)	MW-03S 3/2/04 (mg/l)
Color (APHA Units)	-	-	(units)	70	70	100	NS	50	NS	NS	60	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	187	183	160	169	146	5 U	175	297	263	213
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	2	2.3	1.66	2.07	2.7	5.78	1.66	2.08	2.88	0.5 U
Biochemical Oxygen Demand	-	-	(mg/l)	11	11	18	5	13	10	8	8	12	9
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	1.5	0.5 U	0.5 U	0.5 U	0.6	2.1	3.1
Chemical Oxygen Demand	-	-	(mg/l)	37	10 U	32.6	34.7	44.5	35.3	33.8	77.6	38.6	50.4
Chloride	250 ST	16887-00-6	(mg/l)	75.3	28.8	26.8	37.6	40.2	30.5	21.2	42.9	52.3	32.7
Hardness (as CaCO ₃)	-	-	(mg/l)	190	180	188	220	340	500	400	650	440	300
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.1 U	0.254	0.1 U	0.67	0.88	0.1 U	0.27	0.1 U	0.5 U
Phenols, total	0.001 ST	-	(mg/l)	0.0018	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	5 U	5.1	19	96	545	860	96.5	30.4	5.7	11.2
Total Organic Carbon	-	-	(mg/l)	7.7	4.3	4.67	4.9	3.9	5.8	5.7	8.1	7	6
Total Dissolved Solids	-	-	(mg/l)	246	237	248	290	695	876	452	528	345	320
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	3.1	2	1.7	3	2.48	8.69	1.46	2.92	3.23	2.03

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-03S 5/24/04 (mg/l)	MW-03S 8/23/04 (mg/l)	MW-03S 11/10/04 (mg/l)	MW-03S 3/2/05 (mg/l)	MW-03S 5/31/05 (mg/l)	MW-03S 8/26/05 (mg/l)	MW-03S 11/30/05 (mg/l)	MW-03S 3/1/06 (mg/l)	MW-03S 5/18/06 (mg/l)	MW-03S 8/9/06 (mg/l)
Color (APHA Units)	-	-	(units)	120	NS	NS	200	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	209	225	225	228	278	258	326	368	312	327
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.57	2.28	1.42	1.73	2.19	2.54	2.47	2.59	1.35	3.08
Biochemical Oxygen Demand	-	-	(mg/l)	10	2 U	14	10	10	17	7	10	10	16
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	1.5	4.8	2.2	3.0	2.1	2.8	1.6	1.5	1.1
Chemical Oxygen Demand	-	-	(mg/l)	25.5	10 U	10 U	29.3	66.8	24.3	26.8	36.1	23.6	21.1
Chloride	250 ST	16887-00-6	(mg/l)	41.7	51.1	69.7	52.4	47.9	45.2	56	56.6	45.9	49.2
Hardness (as CaCO ₃)	-	-	(mg/l)	700	172	320	250	370	270	420	390	320	315
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.56	0.1 U	0.14	0.42	0.18	0.1 U	0.1 U	0.12	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	24.3	5 U	5 U	6	16.6	5 U	110	43.8	5 U	5 U
Total Organic Carbon	-	-	(mg/l)	6.8	6.1	6.2	7	9.5	8.4	10.4	12.8	8.1	9.4
Total Dissolved Solids	-	-	(mg/l)	320	513	334	335	393	486	564	554	424	602
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	2.27	2.61	2.08	2.06	2.89	2.99	3.89	3.32	3.77	4.32

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-03S 11/29/06 (mg/l)	MW-03S 2/22/07 (mg/l)	MW-03S 6/1/07 (mg/l)	MW-03S 8/14/07 (mg/l)	MW-03S 11/14/07 (mg/l)	MW-03S 2/11/08 (mg/l)	MW-03S 5/15/08 (mg/l)	MW-03S 8/5/08 (mg/l)	MW-03S 11/5/08 (mg/l)	MW-03S 2/25/09 (mg/l)
Color (APHA Units)	-	-	(units)	70	100	NA	NA	NA	NA	NA	NA	50	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	274	288	276	288	259	228	278	240	217	236
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	2.60	2.88	2.96	2.96	2.32	1.17	1.61	1.73	1.3	1.16
Biochemical Oxygen Demand	-	-	(mg/l)	9	21	12	12	19	16	11	11	14.3	14.4
Bromide	2 GV	24959-67-9	(mg/l)	1.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	43.7	33.3	28.2	33.3	40.9	16.9	10 U	21.8	24.3	13.3
Chloride	250 ST	16887-00-6	(mg/l)	47.7	45.8	43.5	37.5	38.2	37.2	36.3	34.0	33.8	34.9
Hardness (as CaCO ₃)	-	-	(mg/l)	300	320	340	270	234	240	260	220	220	450
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.10 U	0.10 U	0.10 U	0.13	0.1 U	0.1 U	0.1 U	0.15	0.13
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	11.9	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5 U
Total Organic Carbon	-	-	(mg/l)	8.3	8.8	9.8	7.9	7.4	6.7	7.1	7.2	6.8	5.7
Total Dissolved Solids	-	-	(mg/l)	404	364	410	360	347	293	337	330	278	329
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	3.60	4.52	4.09	4.57	3.67	2.77	2.70	3.41	2.83	1.90

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-03S 8/14/09 (mg/l)	MW-03S 2/4/10 (mg/l)
Color (APHA Units)	-	-	(units)	200	200
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	304	259
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.67	1.27
Biochemical Oxygen Demand	-	-	(mg/l)	9	16
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	30.3	21.8
Chloride	250 ST	16887-00-6	(mg/l)	48.8	53.8
Hardness (as CaCO ₃)	-	-	(mg/l)	300	240
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.24
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	9.30	5 U
Total Organic Carbon	-	-	(mg/l)	8.9	6.4
Total Dissolved Solids	-	-	(mg/l)	419	338
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	2.40	3.55

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-04D 10/28/97 (mg/l)	MW-04D 12/06/2000 (mg/l)	MW-04D 02/01/2001 (mg/l)	MW-04D 8/23/02 (mg/l)	MW-04D 11/21/02 (mg/l)	MW-04D 3/7/03 (mg/l)	MW-04D 6/3/03 (mg/l)	MW-04D 8/25/03 (mg/l)	MW-04D 11/11/03 (mg/l)	MW-04D 2/26/04 (mg/l)
Color (APHA Units)	-	-	(units)	150	150	50	NS	60	NS	NS	80	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	210	232	260	117	103	88.2	110	1430	148	163
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	2.8	5.3	5.4	3.91	2.65	3.68	4.33	4.31	4.83	1.19
Biochemical Oxygen Demand	-	-	(mg/l)	8	4	8	13	2 U	2	12	7	4	9
Bromide	2 GV	24959-67-9	(mg/l)	1.1	0.8	1.1	3.0	0.5 U	0.5 U	0.5 U	0.5	2	2.3
Chemical Oxygen Demand	-	-	(mg/l)	46	10 U	10.6	12.7	15.1	10 U	28.9	48.4	19.2	37.9
Chloride	250 ST	16887-00-6	(mg/l)	50.1	42.8	42	20	20.4	12.5	18.6	18.9	17.8	25.1
Hardness (as CaCO ₃)	-	-	(mg/l)	280	280	200	110	200	140	120	500	320	132
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.1 U	0.1 U	1.52	0.61	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.0049	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	18.3	9.1	6.10	10	42.6	17.9	22.1	21.5	14.8	8
Total Organic Carbon	-	-	(mg/l)	4.7	6.5	6.2	3	1.7	2.9	2	1.8	1.7	2.3
Total Dissolved Solids	-	-	(mg/l)	318	304	310	170	241	40	162	214	208	50
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	5.6	6.6	7	4.47	3.06	4.85	4.14	4.69	4.27	4.54

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-04D 5/24/04 (mg/l)	MW-04D 8/23/04 (mg/l)	MW-04D 11/9/04 (mg/l)	MW-04D 3/1/05 (mg/l)	MW-04D 5/27/05 (mg/l)	MW-04D 8/26/05 (mg/l)	MW-04D 11/30/05 (mg/l)	MW-04D 3/1/06 (mg/l)	MW-04D 5/22/06 (mg/l)	MW-04D 8/10/06 (mg/l)
Color (APHA Units)	-	-	(units)	200	NS	NS	250	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	174	267	295	178	184	198	157	109	66.2	53
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	4.21	5.28	3.08	3.89	3.72	2.87	2.55	1.74	0.48	1.06
Biochemical Oxygen Demand	-	-	(mg/l)	12	2 U	5	4	5	6	3	2	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5	2.1	0.6	0.5 U	0.8	0.7	0.6	0.9	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	13.1	10 U	30.5	16.8	34.3	14.3	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	27.6	34.8	41.7	34.7	37.5	37.3	38	31.2	26	16.7
Hardness (as CaCO ₃)	-	-	(mg/l)	800	172	220	260	270	230	168	135	95	80
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.19	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	13	5.1	5 U	13.8	17.7	14.2	23.5	31.2	29.2	23.3
Total Organic Carbon	-	-	(mg/l)	3	3.5	4.1	4.1	4.72	5.4	3.7	3.8	1.8	1.5
Total Dissolved Solids	-	-	(mg/l)	248	415	376	283	271	362	252	226	170	137
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	4.4	5.04	3.89	3.66	3.46	2.88	2.48	2.05	1.44	1.28

NOTES:

NA = Not analyzed

U = Analyzed for but not detected, value shown is instrument detection limit

J = Estimated value

UJ = Value was not detected above quantitation limit but was an approximate concentration

: Concentration exceeds Standard/Guidance Value

J = Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS :	MW-04D 11/30/06 (mg/l)	MW-04D 2/23/07 (mg/l)	MW-04D 5/24/07 (mg/l)	MW-04D 8/10/07 (mg/l)	MW-04D 11/13/07 (mg/l)	MW-04D 2/11/08 (mg/l)	MW-04D 5/15/08 (mg/l)	MW-04D 8/4/08 (mg/l)	MW-04D 11/3/08 (mg/l)	MW-04D 2/23/09 (mg/l)
Color (APHA Units)	-	-	(units)	70	30	NA	NA	NA	NA	NA	NA	80.0	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	49.8	40.0	35.6	U*	39.8	40.7	33.6	25.9	23.2	20.0
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.90	0.10 U	0.10 U	0.89	0.10 U	0.56	0.73	0.52	0.3	0.36
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.3 U	0.3 U	0.3 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	10.4	10.4	7.6	U*	9.9	10.7	8.38	6.23	8.47	20.2
Hardness (as CaCO ₃)	-	-	(mg/l)	64	55.0	60	75	54.0	65.0	56.0	35.0	40.0	190
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.76	0.73	10 U	1.0	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	16.5	21.5	19.8	17.0	19	21.6	18.9	13.8	11.5	10.3
Total Organic Carbon	-	-	(mg/l)	1.6	1.0 U	3.3	1.4	1.1	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	106	106	95	U*	101	96	99	70	64	90
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.60	0.74	0.69	1.9	0.24	0.89	0.79	0.62	0.73	0.64

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS :	MW-04D 8/12/09 (mg/l)	MW-04D 2/4/10 (mg/l)
Color (APHA Units)	-	-	(units)	140	20
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	28.5	18.4
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.39	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.3 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	39.6	13.0
Hardness (as CaCO ₃)	-	-	(mg/l)	54.0	40.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.50
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	16.3
Sulfate	250 ST	14808-79-8	(mg/l)	16.8	11.0
Total Organic Carbon	-	-	(mg/l)	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	177	72
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.50	0.21 U

NOTES

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

U)*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J)*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE	UNITS	MW-041 10/29/97	MW-041 12/06/2000	MW-041 02/01/2001	MW-041 8/23/02	MW-041 11/22/02	MW-041 3/6/03	MW-041 6/3/03	MW-041 8/22/03	MW-041 11/12/03	MW-041 2/26/04
Color (APHA Units)	-	-	(units)		30	200	60	NS	80	NS	NS	150	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)		309	339	240	202	385	282	354	387	326	311
Ammonia (as N)	2 ST	7664-41-7	(mg/l)		18	92	82	548	538	601	653	549	574	477
Biochemical Oxygen Demand	-	-	(mg/l)		6	24	20	8	18	39	50	15	62	28
Bromide	2 GV	24959-67-9	(mg/l)		0.8	0.9	0.70	3.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5	3.4
Chemical Oxygen Demand	-	-	(mg/l)		37	10 U	10 U	20	46.9	51.3	31.4	21.6	48.4	30.5
Chloride	250 ST	16887-00-6	(mg/l)		28.7	50.9	48	22.1	49.5	44.4	49.8	47	46	40.2
Hardness (as CaCO ₃)	-	-	(mg/l)		210	480	200	80	460	290	440	320	390	270
Nitrate (as N)	10 ST	14797-55-8	(mg/l)		0.12	0.1 U	0.1 U	0.59	0.15	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)		0.0039	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)		14.5	5 U	5 U	5 U	10.7	5.6	6.3	5 U	5 U	5 U
Total Organic Carbon	-	-	(mg/l)		5.2	7.5	7.5	5.5	6.4	6.4	7.2	7.4	6.5	6.6
Total Dissolved Solids	-	-	(mg/l)		424	410	310	195	402	400	422	504	368	420
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)		4.3	11.4	10.1	6.38	7.29	7.93	6.21	6.88	5.09	4.45

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE	UNITS	MW-041 5/24/04	MW-041 8/23/04	MW-041 11/8/04	MW-041 3/1/05	MW-041 5/27/05	MW-041 8/26/05	MW-041 11/30/05	MW-041 3/1/06	MW-041 5/22/06	MW-041 8/10/06
Color (APHA Units)	-	-	(units)		120	NS	NS	140	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)		278	279	373	308	300	266	229	164	114	162
Ammonia (as N)	2 ST	7664-41-7	(mg/l)		4.06	4.20	3.50	9.22	8.5	6.32	5.46	3.35	1.56	2.38
Biochemical Oxygen Demand	-	-	(mg/l)		10	8	11	15	19	15	7	9	2 U	3
Bromide	2 GV	24959-67-9	(mg/l)		0.5 U	0.6	0.4	0.5 U	0.8	0.7	0.9	0.5 U	0.5 U	0.8
Chemical Oxygen Demand	-	-	(mg/l)		18.1	10 U	37.9	31.8	64.3	26.8	11.8	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)		40.8	40.5	36.3	35	36.8	33.5	33.9	34.4	27.4	29.5
Hardness (as CaCO ₃)	-	-	(mg/l)		850	208	268	330	250	260	192	160	110	155
Nitrate (as N)	10 ST	14797-55-8	(mg/l)		0.1 U	0.48	0.1 U	0.11	0.1 U	0.1 U	0.1 U	0.16	0.24	0.1 U
Phenols, total	0.001 ST	-	(mg/l)		0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)		5 U	5 U	13.5	5.3	5 U	5 U	5 U	5.7	17.3	11.5
Total Organic Carbon	-	-	(mg/l)		6.7	7	8.9	8.2	8.79	8	6	5.4	3.4	3.7
Total Dissolved Solids	-	-	(mg/l)		370	480	465	403	333	437	269	250	210	242
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)		4.38	4.34	5.37	8.62	7.94	6.64	5.27	3.81	5.47	2.77

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation

Appendix A-1

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE UNITS:	MW-041 1/13/06 (mg/l)	MW-041 2/23/07 (mg/l)	MW-041 5/24/07 (mg/l)	MW-041 8/10/07 (mg/l)	MW-041 11/13/07 (mg/l)	MW-041 2/11/08 (mg/l)	MW-041 5/15/08 (mg/l)	MW-041 8/5/08 (mg/l)	MW-041 11/3/08 (mg/l)	MW-041 2/23/09 (mg/l)
Color (APHA Units)	-	-	(units)	70	20	NA	NA	NA	NA	NA	NA	100	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	104	68.8	76.4	245	102	98.8	50.6	70.2	48.4	65.4
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.33	0.10 U	0.10 U	2.63	0.10 U	1.00	0.1 U	1.09	0.5	0.82
Biochemical Oxygen Demand	-	-	(mg/l)	3	2 U	2 U	18	2 U	4	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	13.0	10 U	U*	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	19.8	20.8	21.3	42.1	26.5	48.7	32.0	47.1	39.6	55.1
Hardness (as CaCO ₃)	-	-	(mg/l)	100	85	85	230	112	130	88.0	116	94.0	200
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.98	0.99	10 U	294	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	7.8	12.3	12.4	5.0 U	10.5	18.4	13.5	10.3	20.5	32.1
Total Organic Carbon	-	-	(mg/l)	2.4	1.4	2.5	6.6	2.2	3.2	1 U	2.2	1.5	1.3
Total Dissolved Solids	-	-	(mg/l)	151	134	158	338	181	217	147	192	144	219
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.71	0.90	0.82	5.24	0.10 U	1.80	1.07	1.23	3.73	1.00

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE UNITS:	MW-041 8/12/09 (mg/l)	MW-041 2/4/10 (mg/l)
Color (APHA Units)	-	-	(units)	200	10
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	243	75.1
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.37	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	17 J*	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	27.9	10 U
Chloride	250 ST	16887-00-6	(mg/l)	79.6	48.8
Hardness (as CaCO ₃)	-	-	(mg/l)	180	92.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.28	0.83
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	11.3 U	19.9
Total Organic Carbon	-	-	(mg/l)	3.6	1.2
Total Dissolved Solids	-	-	(mg/l)	337	200
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.90	0.64 U

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concent



Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS:	MW-04S (mg/l)	MW-04S 12/06/2000 (mg/l)	MW-04S 02/01/2001 (mg/l)	MW-04S 8/23/02 (mg/l)	MW-04S 11/22/02 (mg/l)	MW-04S 3/6/03 (mg/l)	MW-04S 6/3/03 (mg/l)	MW-04S 8/25/03 (mg/l)	MW-04S 11/12/03 (mg/l)	MW-04S 3/2/04 (mg/l)
Color (APHA Units)	-	-	(units)	150	200	80	NS	70	NS	NS	60	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	618	364	400	405	543	489	452	374	402	343
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	9.3	7.8	7.2	7.03	7.18	9.21	9.6	8.64	8.03	1.16
Biochemical Oxygen Demand	-	-	(mg/l)	5	37	34	26	23	44	34	31	41	31
Bromide	2 GV	24959-67-9	(mg/l)	1	1.2	1	4	0.5 U	0.5 U	0.5 U	0.5 U	1.1	3.6
Chemical Oxygen Demand	-	-	(mg/l)	67	10 U	13.4	34.7	37.1	61.9	33.8	99.6	48.4	60.3
Chloride	250 ST	16887-00-6	(mg/l)	63.3	42.2	49	49.9	51.3	49.3	54.9	44.7	37.9	40.3
Hardness (as CaCO ₃)	-	-	(mg/l)	540	480	340	380	440	500	460	700	660	560
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.1 U	0.1 U	0.1 U	0.15	0.1 U	0.26	0.1 U	0.21	0.5
Phenols, total	0.001 ST	-	(mg/l)	0.0049	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	5 U	8.9	5.30	5 U	14	6.4	11.2	15.9	125	28.2
Total Organic Carbon	-	-	(mg/l)	17.3	8.1	11	9	8.8	9.6	8.4	8.9	9.5	8.4
Total Dissolved Solids	-	-	(mg/l)	624	426	460	430	465	595	547	546	610	471
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	23.3	8.9	10.7	7.24	8.65	12.6	10.4	9.9	7.64	5.24

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS:	MW-04S (mg/l)	MW-04S 8/23/04 (mg/l)	MW-04S 11/9/04 (mg/l)	MW-04S 3/1/05 (mg/l)	MW-04S 5/27/05 (mg/l)	MW-04S 8/26/05 (mg/l)	MW-04S 11/29/05 (mg/l)	MW-04S 2/28/06 (mg/l)	MW-04S 5/22/06 (mg/l)	MW-04S 8/10/06 (mg/l)
Color (APHA Units)	-	-	(units)	140	NS	NS	140	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	379	378	438	375	336	348	363	350	351	338
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	6.45	6.21	4.52	5.99	5.22	5.05	4.65	4.42	2.63	5.36
Biochemical Oxygen Demand	-	-	(mg/l)	67	22	12	17	21	33	18	22	18	16
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.6	4.6	1.7	1.4	1.2	8.7	3.4	2.4	1.4
Chemical Oxygen Demand	-	-	(mg/l)	35.5	10 U	37.9	24.3	46.8	31.8	24.3	51.2	26.1	26.1
Chloride	250 ST	16887-00-6	(mg/l)	49.3	52.5	51.1	50	59.2	58.3	55.1	59.6	62.6	70.1
Hardness (as CaCO ₃)	-	-	(mg/l)	900	296	410	440	300	380	360	330	365	305
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.48	0.1 U	0.5	0.24	0.1 U	0.15	0.75	0.2	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	49.4	16.5	30.9	12.4	5 U	11.6	5 U	17.2	17.6	5 U
Total Organic Carbon	-	-	(mg/l)	10.1	8.4	8.6	8.6	9.5	10.1	7.2	9	8.1	9
Total Dissolved Solids	-	-	(mg/l)	440	608	614	490	438	570	444	508	504	474
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	6.73	6.59	5.46	6.05	6.3	5.55	6.7	5.71	6.04	6.07

NOTES:

NA Not analyzed

U Not detected, value shown is instrument detection limit

J Estimated value

UJ* Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation.

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS	MW-04S 11/3/06 (mg/l)	MW-04S 3/2/07 (mg/l)	MW-04S 5/24/07 (mg/l)	MW-04S 8/10/07 (mg/l)	MW-04S 11/13/07 (mg/l)	MW-04S 2/11/08 (mg/l)	MW-04S 5/15/08 (mg/l)	MW-04S 8/4/08 (mg/l)	MW-04S 11/3/08 (mg/l)	MW-04S 2/23/09 (mg/l)
Color (APHA Units)	-	-	(units)	80	60	NA	NA	NA	NA	NA	NA	100	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	338	285	321	316	342	296	300	332	288	311
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	5.80	5.47	5.62	4.99	5.28	3.54	4.30	4.97	2.1	3.15
Biochemical Oxygen Demand	-	-	(mg/l)	13	20	12	18	9	12	11	20	15.9	22.0
Bromide	2 GV	24959-67-9	(mg/l)	1.0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	13.5	38.6	25.7	U*	43.4	21.8	26.8	26.8	66.5	10 U
Chloride	250 ST	16887-00-6	(mg/l)	72.9	70.7	71.7	61.2	68.1	57.4	60.2	55.0	49.9	48.6
Hardness (as CaCO ₃)	-	-	(mg/l)	360	1,100	310	320	290	280	260	268	300	510
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5 U
Total Organic Carbon	-	-	(mg/l)	8.0	8.2	8.9	8.5	7.9	7.4	7.0	8.1	8.6	4.8
Total Dissolved Solids	-	-	(mg/l)	424	416	435	460	440	417	422	416	385	396
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	7.14	7.50	8.45	6.49	7.03	5.59	5.79	6.04	4.73	4.27

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS	MW-04S 8/12/09 (mg/l)	MW-04S 2/4/10 (mg/l)
Color (APHA Units)	-	-	(units)	120	60
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	350	297
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	19 J*	1.4
Biochemical Oxygen Demand	-	-	(mg/l)	0.5 U	0.5 U
Bromide	2 GV	24959-67-9	(mg/l)	23.0	36.0
Chemical Oxygen Demand	-	-	(mg/l)	48.4	49.9
Chloride	250 ST	16887-00-6	(mg/l)	290	275
Hardness (as CaCO ₃)	-	-	(mg/l)	0.1 U	0.1 U
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.005 U	5 U
Phenols, total	0.001 ST	-	(mg/l)	10.2	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	6.3	5.4
Total Organic Carbon	-	-	(mg/l)	398	378
Total Dissolved Solids	-	-	(mg/l)	5.38	4.79
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	5.38	4.79

NOTES:

N.A. Not analyzed

U. Analyzed for but not detected, value shown is instrument detection limit

J. Estimated value

UJ* Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-05D 10/29/97 (mg/l)	MW-05D 12/08/2000 (mg/l)	MW-05D 02/02/2001 (mg/l)	MW-05D 8/23/02 (mg/l)	MW-05D 11/22/02 (mg/l)	MW-05D 3/7/03 (mg/l)	MW-05D 6/5/03 (mg/l)	MW-05D 8/25/03 (mg/l)	MW-05D 11/12/03 (mg/l)	MW-05D 3/2/04 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	50	10	NS	5	NS	NS	5 U	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	234	467	505	138	128	90	50.9	34.4	29.6	41.5
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	4.3	14.9	16.1	4.41	0.1 U	2.96	0.1 U	0.1 U	0.1	1.44
Biochemical Oxygen Demand	-	-	(mg/l)	2	5	12	8	10	2 U	13	6	2 U	2
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	3.2	0.5 U	0.5 U	0.5 U	0.5 U	1.1	6.0
Chemical Oxygen Demand	-	-	(mg/l)	43	40.5	32.6	17.6	22.5	10 U	10 U	36.2	21.6	15.6
Chloride	250 ST	16887-00-6	(mg/l)	51.5	65.4	51.6	27.9	32.8	34	38.5	27.1	23.3	32.7
Hardness (as CaCO ₃)	-	-	(mg/l)	260	410	360	148	130	136	160	110	300	190
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.1 U	1.5	4.46	5.73	11.4	0.68	15.1	13.5	8.85
Phenols, total	0.001 ST	-	(mg/l)	0.0015	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	27.5	25.5	17.8	33.5	32.7	15	9.8	7.6	8.9	9
Total Organic Carbon	-	-	(mg/l)	6	13.6	11.1	4.3	2.7	1.7	1 U	1 U	1.4	1.3
Total Dissolved Solids	-	-	(mg/l)	337	549	566	266	297	242	258	344	190	284
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	6	15.3	18	4.57	2.54	3.46	1.86	1.4	1.14	1.39

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-05D 5/25/04 (mg/l)	MW-05D 8/23/04 (mg/l)	MW-05D 11/10/04 (mg/l)	MW-05D 3/2/05 (mg/l)	MW-05D 5/31/05 (mg/l)	MW-05D 8/26/05 (mg/l)	MW-05D 11/30/05 (mg/l)	MW-05D 3/1/06 (mg/l)	MW-05D 5/18/06 (mg/l)	MW-05D 8/9/06 (mg/l)
Color (APHA Units)	-	-	(units)	5	NS	NS	5 U	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	39.6	31.2	29.6	29.2	27.2	27.7	27.4	26.6	28.8	92
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.4	0.1 U	0.1 U	0.93	0.88	0.69	1.05	0.74	0.1 U	0.92
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1	1.6	3.2	2.8	1.9	1.8	2.9	2.2	3.0	1.6
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	24.3	10 U	10 U	10 U	10 U	16
Chloride	250 ST	16887-00-6	(mg/l)	23.9	24.8	27.9	28.9	25.6	25.9	31.5	31	27.7	69
Hardness (as CaCO ₃)	-	-	(mg/l)	160	40	110	84	84	80	88	128	100	215
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	7.52	9.95	10.1	8.12	7.49	7.87	8.69	8.7	9.97	3.46
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	13.4	12.2	9.5	11.1	9.9	11.9	11.3	11.8	12.9	85.5
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1.2	1 U	1 U	1.3	1.5	1.4	1	3.1
Total Dissolved Solids	-	-	(mg/l)	189	300	150	154	168	285	185	178	178	388
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.52	1.28	1.36	0.72	1.02	0.77	0.9	0.88	0.78	1.29

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

Appendix A-1

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	5	5	5	5	5	5	5
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	77.0	42.3	73	59.8	31.5	48.5	19.2	37.4	27.1
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.90	0.10 U	0.10 U	0.46	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	13.5	20.6	20.6	18.1	20.6	19.4	19.4	10 U	11.9
Chloride	250 ST	16887-00-6	(mg/l)	63.7	61.0	48.5	44.2	42.6	82.6	65.9	46.7	37.4
Hardness (as CaCO ₃)	-	-	(mg/l)	190	160	200	180	120	180	152	132	130
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	2.16	2.84	1.57	2.4	4.33	1.60	3.64	5.60	7.65
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	112	85.5	157	103	77.1	82.7	80.9	105	90.6
Total Organic Carbon	-	-	(mg/l)	2.9	2.9	3.6	3.3	2.9	2.4	3.2	2.0	1.4
Total Dissolved Solids	-	-	(mg/l)	344	303	348	369	275	351	296	292	262
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.46	1.00	1.33	1.3	0.58	0.96	0.94	0.52	0.27

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-05D (mg/l)	MW-05D (mg/l)
Color (APHA Units)	-	-	(units)	5 U	10
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	23.5	12.4
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	67.5	46.4
Hardness (as CaCO ₃)	-	-	(mg/l)	110	82.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	4.45	5.28
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	84.0	29.3
Total Organic Carbon	-	-	(mg/l)	1.0	1.2
Total Dissolved Solids	-	-	(mg/l)	300	179
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.41	1.37

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-051 10/29/97 (mg/l)	MW-051 12/08/2000 (mg/l)	MW-051 02/02/2001 (mg/l)	MW-051 8/23/02 (mg/l)	MW-051 11/22/02 (mg/l)	MW-051 3/7/03 (mg/l)	MW-051 6/5/03 (mg/l)	MW-051 8/25/03 (mg/l)	MW-051 11/12/03 (mg/l)	MW-051 3/2/04 (mg/l)
Color (APHA Units)	-	-	(units)	40	300	100	NS	60	NS	NS	50	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	30.4	1.3	1.37	93	92.5	133	135	105	177	140
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.49	3.9	4.19	1.28	0.1	3.35	3.66	0.1 U	5.9	0.86
Biochemical Oxygen Demand	-	-	(mg/l)	3	4 U	9	10	7	2 U	3	13	4	7
Bromide	2 GV	24959-67-9	(mg/l)	0.6	0.5 U	0.5 U	1.3	1	0.5 U	0.5 U	0.9	0.5 U	3.4
Chemical Oxygen Demand	-	-	(mg/l)	16	10 U	10 U	10 U	10 U	27.3	10 U	43.5	21.6	25.5
Chloride	250 ST	16887-00-6	(mg/l)	24.3	29.6	39.9	25.3	34.3	39.1	31.6	27.5	49.1	46.4
Hardness (as CaCO ₃)	-	-	(mg/l)	50	104	140	100	140	120	160	170	240	400
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.1 U	1.4	1.94	0.66	0.32	0.1 U	3.16	0.1 U	4.52
Phenols, total	0.001 ST	-	(mg/l)	0.0010 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	8.9	24.2	17	21.5	20.4	22.3	25.1	15.2	27.9	17.1
Total Organic Carbon	-	-	(mg/l)	1.8	4.7	5.12	3.4	2.5	3.2	2.5	3.7	4.5	4
Total Dissolved Solids	-	-	(mg/l)	100	216	250	432	207	280	218	257	291	303
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.7	4.4	5	2.44	1.43	4.77	3.46	0.7	5.75	3.62

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-051 5/25/04 (mg/l)	MW-051 8/23/04 (mg/l)	MW-051 11/10/04 (mg/l)	MW-051 3/2/05 (mg/l)	MW-051 5/31/05 (mg/l)	MW-051 8/29/05 (mg/l)	MW-051 11/30/05 (mg/l)	MW-051 3/1/06 (mg/l)	MW-051 5/18/06 (mg/l)	MW-051 8/9/06 (mg/l)
Color (APHA Units)	-	-	(units)	40	NS	NS	140	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	184	136	188	178	156	150	176	129	140	124
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	5.99	0.1 U	6.44	4.54	4.04	2.47	2.11	2.54	0.1 U	2.37
Biochemical Oxygen Demand	-	-	(mg/l)	6	4	3	6	6	4	2 U	3	4	4
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	4.0	1.7	1.2	1.7	1.5	0.7	0.5 U	0.5
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	21.8	26.8	16.8	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	49.6	37.4	58.8	45.1	45.4	46.6	65.1	42.7	53.9	60.2
Hardness (as CaCO ₃)	-	-	(mg/l)	850	98	184	210	200	230	224	185	190	210
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	3.88	0.11	0.39	0.15	0.1 U	0.1 U	0.13	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	14	15.6	17.7	17.1	27.1	41	60.5	54	68.5	99.5
Total Organic Carbon	-	-	(mg/l)	4.8	3.7	5.5	4.8	4.6	5.5	5.9	5.5	5.2	5.9
Total Dissolved Solids	-	-	(mg/l)	287	396	313	284	275	383	357	289	325	412
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	5.92	4.28	6.11	4.18	3.28	2.69	2.33	3.01	1.91	2.82

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-051 11/30/06 (mg/l)	MW-051 22/1/07 (mg/l)	MW-051 5/25/07 (mg/l)	MW-051 8/14/07 (mg/l)	MW-051 11/13/07 (mg/l)	MW-051 2/11/08 (mg/l)	MW-051 5/15/08 (mg/l)	MW-051 8/5/08 (mg/l)	MW-051 11/5/08 (mg/l)	MW-051 2/26/09 (mg/l)
Color (APHA Units)	-	-	(units)	70	20	NA	NA	NA	NA	NA	NA	40.0	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	79.5	72.5	63.3	70.5	57	57.8	69.4	71.8	42.6	47.8
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.85	10.0	0.10 U	1.52	0.10 U	0.28 U	0.53	0.1 U	0.1 U	0.1 U*
Biochemical Oxygen Demand	-	-	(mg/l)	3	2 U	7	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	25.7	10 U	10.5	18.1	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	35.2	33.7	59.1	62.3	61.6	52.9	51.4	18.1	21.0	22.6
Hardness (as CaCO ₃)	-	-	(mg/l)	136	120	130	180	124	110	96.0	96.0	14.0	190
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.46	0.11	0.1 U	1.78	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	76.0	59.3	56.8	52.8	50.0	36.1	36.8	67.3	32.3	38.0
Total Organic Carbon	-	-	(mg/l)	3.3	3.1	3.9	3.4	3.4	3	2.9	3.1	1.4	1.0
Total Dissolved Solids	-	-	(mg/l)	231	207	267	286 J	297	212	223	203	126	151
Total Kjeldahl Nitrogen (as N)	-	7721-37-9	(mg/l)	1.26	1.05	2.45	2.32	0.41	1.28	0.74	0.48	0.18	0.16 J*

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-051 8/17/09 (mg/l)	MW-051 2/8/10 (mg/l)
Color (APHA Units)	-	-	(units)	10	60
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	42.3	38.3
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	26.5
Chloride	250 ST	16887-00-6	(mg/l)	37.6	28.0
Hardness (as CaCO ₃)	-	-	(mg/l)	88.0	64.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.63
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	16.7
Sulfate	250 ST	14808-79-8	(mg/l)	32.7	22.5
Total Organic Carbon	-	-	(mg/l)	1.3	2.6
Total Dissolved Solids	-	-	(mg/l)	196	126
Total Kjeldahl Nitrogen (as N)	-	7721-37-9	(mg/l)	0.23	1.67

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

U)*: Value was not detected above quantitation limit but was an approximate concentration

J)*: Concentration exceeds Standard/Guidance Value

J)*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS:	MW-05S (mg/l)	MW-05S 12/08/2000 (mg/l)	MW-05S 02/02/2001 (mg/l)	MW-05S 8/23/02 (mg/l)	MW-05S 11/22/02 (mg/l)	MW-05S 3/7/03 (mg/l)	MW-05S 6/5/03 (mg/l)	MW-05S 8/25/03 (mg/l)	MW-05S 11/12/03 (mg/l)	MW-05S 3/2/04 (mg/l)
Color (APHA Units)	-	-	(units)	60	400	100	NS	60	NS	NS	100	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	412	390	362	236	258	218	252	106	386	160
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	4.4	6.1	6.55	3.17	2.08	2.71	5.57	12.4	9.09	0.97
Biochemical Oxygen Demand	-	-	(mg/l)	8	25	33	32	23	21	28	10	21	4
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.6	0.9	1	1.4	0.5 U	0.5 U	0.5	2.3	3.9
Chemical Oxygen Demand	-	-	(mg/l)	46	10 U	218	22.5	15.1	38	31.4	63	50.8	65.3
Chloride	250 ST	16887-00-6	(mg/l)	82.1	36.4	36.6	39.4	46.1	36.3	29.5	37.5	41.4	17.9
Hardness (as CaCO ₃)	-	-	(mg/l)	400	290	276	240	210	250	600	650	660	220
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.1 U	0.79	0.1 U	0.28	0.83	0.17	1	1.44	7.94
Phenols, total	0.001 ST	-	(mg/l)	0.0049	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	5 U	5 U	5 U	8.9	25.1	27.5	36	78.5	13.4	28.5
Total Organic Carbon	-	-	(mg/l)	9.6	12	9.17	6.5	5.4	5.2	6.7	10.3	10.7	4.6
Total Dissolved Solids	-	-	(mg/l)	482	385	383	288	342	275	360	640	457	396
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	9.6	7.8	8.4	6.3	2.48	4.41	5.7	14.3	8.66	4.66

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS:	MW-05S (mg/l)	MW-05S 8/23/04 (mg/l)	MW-05S 11/10/04 (mg/l)	MW-05S 3/2/05 (mg/l)	MW-05S 5/31/05 (mg/l)	MW-05S 8/29/05 (mg/l)	MW-05S 11/30/05 (mg/l)	MW-05S 3/1/06 (mg/l)	MW-05S 5/18/06 (mg/l)	MW-05S 8/9/06 (mg/l)
Color (APHA Units)	-	-	(units)	140	NS	NS	120	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	160	317	270	177	302	377	368	423	414	405
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.44	3.48	2.78	2.84	5.65	6.69	7.24	7.97	8.03	8.05
Biochemical Oxygen Demand	-	-	(mg/l)	15	2 U	9	15	12	28	9	10	13	17
Bromide	2 GV	24959-67-9	(mg/l)	0.8	1.3	2.4	0.5 U	6.0	1.8	0.9	1.2	2.3	3.1
Chemical Oxygen Demand	-	-	(mg/l)	28	15.6	10 U	11.8	69.3	29.3	79.3	38.7	16	28.6
Chloride	250 ST	16887-00-6	(mg/l)	35.8	40.7	50.7	49.8	47	47	51.7	54.1	53.1	54.6
Hardness (as CaCO ₃)	-	-	(mg/l)	1100	280	340	310	300	320	408	400	370	400
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.45	3.24	1.27	2.49	0.6	0.34	0.9	0.42	0.26	0.3
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	17.2	8.9	7.8	7	5 U	5 U	11.2	47.8	5.2	5 U
Total Organic Carbon	-	-	(mg/l)	8.2	8	8	5.5	9.5	11.9	11.3	15.6	10.4	11
Total Dissolved Solids	-	-	(mg/l)	361	598	415	318	429	598	588	586	486	546
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	2.44	5.61	3.85	3.28	5.29	7.1	7.51	10.5	10.3	8.89

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

: Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-05S 11/30/06 (mg/l)	MW-05S 2/2/07 (mg/l)	MW-05S 6/1/07 (mg/l)	MW-05S 8/14/07 (mg/l)	MW-05S 11/13/07 (mg/l)	MW-05S 2/11/08 (mg/l)	MW-05S 5/15/08 (mg/l)	MW-05S 8/5/08 (mg/l)	MW-05S 11/5/08 (mg/l)	MW-05S 2/26/09 (mg/l)
Color (APHA Units)	-	-	(units)	70	50	NA	NA	NA	NA	NA	NA	60.0	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	392	389	386	420	351	328	302	324	277	266
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	624	607	639	736	646	401	520	575	40	340
Biochemical Oxygen Demand	-	-	(mg/l)	18	12	12	23	16	10	9	2 U	15.2	15.5
Bromide	2 GV	24959-67-9	(mg/l)	23	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	16.0	38.3	38.3	51	43.4	16.9	36.7	26.8	29.3	10.9
Chloride	250 ST	16887-00-6	(mg/l)	60.6	58.4	48.8	46.2	49	45.6	36.3	38.5	38.3	34.2
Hardness (as CaCO ₃)	-	-	(mg/l)	340	360	360	440	340	310	220	290	300	460
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.22	0.54	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.20	5 U	5 U	5 U
Total Organic Carbon	-	-	(mg/l)	8.8	10.3	11.1	10.9	9.5	7.9	8.1	1.4	8.9	5.8
Total Dissolved Solids	-	-	(mg/l)	460	451	454	502	456	395	363	403	371	372
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	9.46	8.54	9.15	9.63	8.4	6.90	6.71	7.46	5.77	5.01

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-05S 8/17/09 (mg/l)	MW-05S 2/8/10 (mg/l)
Color (APHA Units)	-	-	(units)	40	50
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	334	195
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	256	0.50
Biochemical Oxygen Demand	-	-	(mg/l)	15	18
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	32.7	21.8
Chloride	250 ST	16887-00-6	(mg/l)	49.3	35.0
Hardness (as CaCO ₃)	-	-	(mg/l)	320	280
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.18
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5.4
Sulfate	250 ST	14808-79-8	(mg/l)	11.6	22.8
Total Organic Carbon	-	-	(mg/l)	8.7	4.8
Total Dissolved Solids	-	-	(mg/l)	496	313
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	7.62	5.79

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

U/J*: Value was not detected above quantitation limit but was an approximate concentration

: Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE: DATE UNITS	MW-06D 10/28/97 (mg/l)	MW-06D 12/05/2000 (mg/l)	MW-06D 01/31/2001 (mg/l)	MW-06D 8/22/02 (mg/l)	MW-06D 11/20/02 (mg/l)	MW-06D 3/5/03 (mg/l)	MW-06D 6/5/03 (mg/l)	MW-06D 8/22/03 (mg/l)	MW-06D 11/11/03 (mg/l)	MW-06D 2/27/04 (mg/l)
Color (APHA Units)	-	-	(units)	10	30	5 U	NS	20	NS	NS	5 U	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	31.3	40.6	38	40	31.2	35.5	27.3	34.3	36.8	24.7
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.32	0.1 U	0.24	0.1 U	0.1 U	0.14	0.1 U	0.1 U	0.24	0.2
Biochemical Oxygen Demand	-	-	(mg/l)	3	37	2 U	2 U	2 U	2 U	2 U	8	16	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.60	0.5 U	0.5 U	0.5 U	0.5 U	0.7	5.1	2.9
Chemical Oxygen Demand	-	-	(mg/l)	15 U	10 U	10 U	22.5	22.5	19.3	10 U	10 U	55.7	10.6
Chloride	250 ST	16887-00-6	(mg/l)	7.3	12.6	9.3	14.7	16.2	10.5	5.6	5.1	5	7
Hardness (as CaCO ₃)	-	-	(mg/l)	120	44	68	72	62	80	80	80	80	40
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.2	0.14	0.67	0.4	0.36	1.47	0.2	1.04	0.33
Phenols, total	0.001 ST	-	(mg/l)	0.0010 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	20.3	23.3	17.2	14.5	23	26	25.5	24.4	26.8	17.8
Total Organic Carbon	-	-	(mg/l)	2	1.7	1.1	1.2	1 U	1 U	1 U	1 U	1.7	1 U
Total Dissolved Solids	-	-	(mg/l)	78	130	120	100	150	96	97	117	105	155
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.2 U	0.2	0.46	0.1 U	0.1 U	0.1	0.1 U	0.1 U	3.07	0.24

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE: DATE UNITS	MW-06D 5/24/04 (mg/l)	MW-06D 8/20/04 (mg/l)	MW-06D 11/9/04 (mg/l)	MW-06D 3/1/05 (mg/l)	MW-06D 5/27/05 (mg/l)	MW-06D 8/26/05 (mg/l)	MW-06D 11/29/05 (mg/l)	MW-06D 2/28/06 (mg/l)	MW-06D 5/18/06 (mg/l)	MW-06D 8/9/06 (mg/l)
Color (APHA Units)	-	-	(units)	5	NS	NS	5 U	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	11.6	23.8	30.8	22.5	21	21.7	18.8	8.6	24.4	21.8
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.21	0.1 U	0.1 U	0.12	0.1 U	0.12	0.11	0.28	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	10	2 U	2 U	2 U	2 U	2 U	2 U	3
Bromide	2 GV	24959-67-9	(mg/l)	0.6	3.1	4.6	2.9	0.5	3.4	3.2	2.3	3.6	4.3
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	135	11.8	24.3	16.8	10 U	13.5	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	5.9	8	8.9	9.7	8.58	8.1	8.4	9.4	9.3	11.2
Hardness (as CaCO ₃)	-	-	(mg/l)	105	28	63	58	52	40	42	39	5 U	5 U
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.45	0.5	0.21	0.71	0.519	0.18	0.58	0.34	0.37	0.49
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.0088	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	26.6	19.2	16.9	16.8	20.5	17.9	17.8	19.6	16.6	14.6
Total Organic Carbon	-	-	(mg/l)	1.1	1 U	3.2	1	1.19	1 U	1 U	1.3	1.2	1.2
Total Dissolved Solids	-	-	(mg/l)	93	109	92	105	87	99	55	96	80	160
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.23	0.73	2.06	0.88	1.1	0.1 U	0.47	0.11	0.1 U	0.18

NOTES:

NA Not analyzed

U Analyzed for but not detected, value shown is instrument detection limit

J Estimated value

UJ* Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-06D 12/1/06 (mg/l)	MW-06D 2/22/07 (mg/l)	MW-06D 5/24/07 (mg/l)	MW-06D 8/10/07 (mg/l)	MW-06D 11/9/07 (mg/l)	MW-06D 2/11/08 (mg/l)	MW-06D 5/15/08 (mg/l)	MW-06D 8/4/08 (mg/l)	MW-06D 11/3/08 (mg/l)	MW-06D 2/23/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	19.9	10.1	6.0	U*	12.2	27.4	17.8	29.8	30.9	29.2
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.14	0.10 U	0.10 U	0.01 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	3.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	23.1	10 U	10 U	14.4	19.4	10 U
Chloride	250 ST	16887-00-6	(mg/l)	12.7	14.7	14.1	U*	13.9	16.8	15.8	23.9	25.5	29.3
Hardness (as CaCO ₃)	-	-	(mg/l)	52	43.0	24	56	30.0	42.0	48.0	72.0	64.0	150
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.74	0.73	0.70	U*	0.7	0.1 U	0.37	0.60	0.53	1.38
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	13.7	17.9	16.7	16.6	17.7	17.3	16.9	19.8	19.4	14.0
Total Organic Carbon	-	-	(mg/l)	1 U	1.0	1.2	1.0 U	1.7	1.0	1 U	1.4	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	82	74	72	U*	74	85	97	117	109	131
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.26	0.71	0.63	0.50	0.19	0.10	0.18	0.1 U	0.1 U	0.1 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-06D 8/11/09 (mg/l)	MW-06D 2/4/10 (mg/l)
Color (APHA Units)	-	-	(units)	5	5
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	32.3	13.6
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10.9	10 U
Chloride	250 ST	16887-00-6	(mg/l)	25.0	28.0
Hardness (as CaCO ₃)	-	-	(mg/l)	40.0	36.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.75	0.68
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	24.5	20.1
Total Organic Carbon	-	-	(mg/l)	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	130	101
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.1 U

NOTES

NA Not analyzed

U Analyzed for but not detected, value shown is instrument detection limit

J Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

: Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

Appendix A-1

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS :	MW-061 10/28/97 (mg/l)	MW-061 12/05/2000 (mg/l)	MW-061 02/01/2001 (mg/l)	MW-061 8/21/02 (mg/l)	MW-061 11/21/02 (mg/l)	MW-061 3/5/03 (mg/l)	MW-061 6/5/03 (mg/l)	MW-061 8/22/03 (mg/l)	MW-061 1/11/03 (mg/l)	MW-061 2/27/04 (mg/l)
Color (APHA Units)	-	-	(units)	10	30	30	NS	5	NS	NS	5 U	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	115	97.1	77	43.7	50.7	55.7	48.9	58.7	45	37.2
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.76	1.7	1.7	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.17	0.17
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	14	2	2 U	2 U	2 U	11	8	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.8 U	0.5 U	0.5 U	0.8	2.5	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	15 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	25.4	20.1	18	12.3	16.2	8.8	8.4	10.1	13.1	12.7
Hardness (as CaCO ₃)	-	-	(mg/l)	180	108	120	80	170	40	108	85	88	110
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.1 U	0.14	2.24	0.97	0.79	2.1	0.95	1.15	1.19
Phenols, total	0.001 ST	-	(mg/l)	0.002	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	21.2	47.8	50.4	12.7	12.7	16	17.4	25.9	30.9	31
Total Organic Carbon	-	-	(mg/l)	2.4	1.8	2.4	1.7	1.4	1	1.2	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	190	211	120	99	151	94	123	153	119	60
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.4	2	2.30	0.1 U	0.1 U	0.23	0.13	0.14	0.19	0.18

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS :	MW-061 5/24/04 (mg/l)	MW-061 8/20/04 (mg/l)	MW-061 11/9/04 (mg/l)	MW-061 3/11/05 (mg/l)	MW-061 5/27/05 (mg/l)	MW-061 8/25/05 (mg/l)	MW-061 11/29/05 (mg/l)	MW-061 2/28/06 (mg/l)	MW-061 5/18/06 (mg/l)	MW-061 8/9/06 (mg/l)
Color (APHA Units)	-	-	(units)	20	NS	NS	5	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	33.2	45.4	58.8	41.9	44.6	42.8	49.8	74.6	62.2	81.6
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.22	0.1 U	0.49	0.27	0.562	0.87	2.01	1.47	0.1 U	3.93
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	3	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	2.8	0.5 U	0.5 U	1.3	1.3	0.6	0.5	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	70.3	10 U	51.8	16.8	10 U	11	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	18.7	19.4	42.9	25.9	14	14	41	47.2	23.5	20.7
Hardness (as CaCO ₃)	-	-	(mg/l)	180	34	92	112	70	66	94	130	90	90
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.67	1.18	1.06	1.89	1.33	1.34	2.01	0.47	0.48	0.32
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	20.5	26.7	28.7	36.1	18.7	19.5	25.3	46.2	23.9	25.0
Total Organic Carbon	-	-	(mg/l)	1.2	1	1.8	1.7	2.03	1.2	1.3	2.7	1.3	1.7
Total Dissolved Solids	-	-	(mg/l)	119	142	189	144	108	203	145	240	146	86
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.2	0.17	0.96	0.34	0.664	1.06	2.2	2.27	2.98	4.57

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

: Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-061 12/1/06 (mg/l)	MW-061 2/22/07 (mg/l)	MW-061 5/24/07 (mg/l)	MW-061 8/10/07 (mg/l)	MW-061 11/9/07 (mg/l)	MW-061 2/11/08 (mg/l)	MW-061 5/15/08 (mg/l)	MW-061 8/4/08 (mg/l)	MW-061 11/3/08 (mg/l)	MW-061 2/23/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	65.2	27.5	24.7	U*	33	43.0	31.0	37.0	36.8	40.9
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	4.15	4.61	0.10 U	3.34	0.56 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	6	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	98.7	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	31.5	31.8	32.3	29.9	36.4	26.3	16.8	25.5	16.7	17.9
Hardness (as CaCO ₃)	-	-	(mg/l)	68	70.0	72	76	76	58	52.0	56.0	56.0	150 J*
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.64	4.61	5.37	2.79	6.02	2.12	2.48	4.20	6.12	1.65
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	21.0	22.1	19.9	24.1	21.2	14.1	11.6	9.42	9.38	9.31
Total Organic Carbon	-	-	(mg/l)	1.1	1.3	1.0	1.3	1.2	1 U	1.0	1 U	1.0	1.1
Total Dissolved Solids	-	-	(mg/l)	144	147	161	166	184	108	111	137	105	92
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	6.21	1.93	1.28	5.36	0.81 J	2.34	1.53	1.48	1.27	1.66

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-061 8/11/09 (mg/l)	MW-061 2/4/10 (mg/l)
Color (APHA Units)	-	-	(units)	10	10
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	26.3	24.9
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	30.7	23.2
Hardness (as CaCO ₃)	-	-	(mg/l)	45.0	45.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	1.1 J*
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	11.1	9.46
Total Organic Carbon	-	-	(mg/l)	1.0	1 U
Total Dissolved Solids	-	-	(mg/l)	124	98
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.41	0.25 U

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-06S 10/27/97 (mg/l)	MW-06S 12/5/00 (mg/l)	MW-06S 02/01/2001 (mg/l)	MW-06S 8/21/02 (mg/l)	MW-06S 11/20/02 (mg/l)	MW-06S 3/5/03 (mg/l)	MW-06S 6/4/03 (mg/l)	MW-06S 11/11/03 (mg/l)	MW-06S 2/27/04 (mg/l)
Color (APHA Units)	-	-	(units)	150	100	70	NS	60	NS	NS	150	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	453	245	200	161	183	156	279	239	258
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	7.2	3.5	3.7	3.97	2.76	2.2	5.45	4.79	3.28
Biochemical Oxygen Demand	-	-	(mg/l)	5	17	10	2 U	6	3	16	25	9
Bromide	2 GV	24959-67-9	(mg/l)	0.6	0.7	0.5 U	1.2	0.5 U	0.5 U	0.5 U	4.3	2.1
Chemical Oxygen Demand	-	-	(mg/l)	46	10.7	10 U	24.9	10 U	27.3	10 U	41.1	30.5
Chloride	250 ST	16887-00-6	(mg/l)	39.8	14.8	20	15.8	19.6	10.7	20	22.3	17.4
Hardness (as CaCO ₃)	-	-	(mg/l)	440	280	140	220	280	80	200	420	280
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.1 U	0.1 U	0.21	1.97	0.32	0.17	0.29	0.1 U
Phenols, total	0.001 ST	-	(mg/l)	0.005	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	5	5 U	8.40	33.8	38.2	18.3	20.6	133	39.8
Total Organic Carbon	-	-	(mg/l)	11.4	4.4	5.8	4.6	2.9	5.1	4.2	13.1	5.7
Total Dissolved Solids	-	-	(mg/l)	480	270	220	213	391	230	239	564	338
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	17.3	3.9	4.9	4.68	3.24	3.33	3.3	7.64	4.11

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-06S 5/24/04 (mg/l)	MW-06S 8/20/04 (mg/l)	MW-06S 11/9/04 (mg/l)	MW-06S 3/1/05 (mg/l)	MW-06S 5/25/05 (mg/l)	MW-06S 8/25/05 (mg/l)	MW-06S 11/29/05 (mg/l)	MW-06S 2/28/06 (mg/l)	MW-06S 8/9/06 (mg/l)
Color (APHA Units)	-	-	(units)	100	NS	NS	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	206	337	182	166	126	310	240	75.4	410
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	4.39	11.1	2.04	2.34	0.96	7.37	5.29	3.56	6.47
Biochemical Oxygen Demand	-	-	(mg/l)	4	14	5	6	2 U	6	6	8	13
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	2	1	0.5 U	3.9	5.6	4.2	0.5 U	0.6
Chemical Oxygen Demand	-	-	(mg/l)	23	18.1	185	16.8	19.3	109	10 U	41.2	36.1
Chloride	250 ST	16887-00-6	(mg/l)	16.4	37.4	29.6	28.1	13	37	28.8	27.6	28.3
Hardness (as CaCO ₃)	-	-	(mg/l)	950	250	150	184	330	280	264	310	370
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	3.76	0.17	0.22	3.76	13.9	0.17	0.48	3.91	0.34
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	80	5.5	6.7	12.8	72.2	6.6	50.3	53.2	37.9
Total Organic Carbon	-	-	(mg/l)	7.8	9.6	4.1	1 U	10.8	10.3	7.1	10.8	14.2
Total Dissolved Solids	-	-	(mg/l)	336	442	292	269	327	564	346	410	538
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	4.7	12.3	4.29	2.8	3.37	7.36	5.65	5.21	8.15

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-06S 12/1/06 (mg/l)	MW-06S 2/22/07 (mg/l)	MW-06S 5/24/07 (mg/l)	MW-06S 8/10/07 (mg/l)	MW-06S 11/9/07 (mg/l)	MW-06S 2/11/08 (mg/l)	MW-06S 5/15/08 (mg/l)	MW-06S 8/4/08 (mg/l)	MW-06S 11/3/08 (mg/l)	MW-06S 2/23/09 (mg/l)
Color (APHA Units)	-	-	(units)	80	80	NA	NA	NA	NA	NA	NA	100	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	327	216	238	166	289	291	222	209	286	209
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	6.08	4.42	4.65	3.04	5.35	3.42	4.43	4.23	3.7	2.60
Biochemical Oxygen Demand	-	-	(mg/l)	14	9	10	4	140	8	3	2 U	8.6	10.3
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloride	-	-	(mg/l)	10 U	35.8	25.7	U*	38.3	24.3	11.9	21.8	26.8	10 U
Hardness (as CaCO ₃)	250 ST	16887-00-6	(mg/l)	24.1	28.8	41.0	33.0	32.4	41.9	46.3	30.7	39.3	34.8
Nitrate (as N)	-	-	(mg/l)	312	240	260	160	500	260	210	190	360	480
Phenols, total	10 ST	14797-55-8	(mg/l)	4.48	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.17
Sulfate	0.001 ST 250 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Total Organic Carbon	-	-	(mg/l)	5.0 U	5.0 U	5.0 U	5.1	5.0 U	5.0 U	8.50	5 U	5 U	5 U
Total Dissolved Solids	-	-	(mg/l)	9.1	6.6	9.5	5.0	8.0	7.1	6.3	4.9	8.5	4.5
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	364	246	331	233	348	368	327	268	344	324
	-	-	(mg/l)	9.50	6.48	7.96	U*	6.56	5.98	5.80	4.87	5.22	3.72

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-06S 8/11/09 (mg/l)	MW-06S 2/4/10 (mg/l)
Color (APHA Units)	-	-	(units)	100	70
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	220	77.7
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.41 J*	1.46
Biochemical Oxygen Demand	-	-	(mg/l)	8 J*	8
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chloride	-	-	(mg/l)	25.4	21.8
Hardness (as CaCO ₃)	250 ST	16887-00-6	(mg/l)	21.9	23.0
Nitrate (as N)	-	-	(mg/l)	200	180
Phenols, total	10 ST	14797-55-8	(mg/l)	0.50	0.20
Sulfate	0.001 ST	-	(mg/l)	0.005 U	5 U
Total Organic Carbon	250 ST	14808-79-8	(mg/l)	7.40	5 U
Total Dissolved Solids	-	-	(mg/l)	5.4	3.3
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	277	228
	-	-	(mg/l)	4.08	3.37

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-071 10/28/97 (mg/l)	MW-071 12/01/2000 (mg/l)	MW-071 01/31/2001 (mg/l)	MW-071 8/21/02 (mg/l)	MW-071 11/20/02 (mg/l)	MW-071 3/5/03 (mg/l)	MW-071 6/3/03 (mg/l)	MW-071 8/22/03 (mg/l)	MW-071 11/11/03 (mg/l)	MW-071 2/27/04 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	5 U	NS	5	NS	NS	5 U	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	23.4	22.1	23	13.9	12.6	17.5	28.1	24.1	21.5	23.6
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.3	0.89	1.2	0.1 U	0.1 U	0.34	0.99	0.51	0.52	1.84
Biochemical Oxygen Demand	-	-	(mg/l)	6	2 U	8	2 U	3	3	7	4	2 U	11
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.6	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.6	3.4	1.2
Chemical Oxygen Demand	-	-	(mg/l)	15 U	10 U	10 U	12.7	10 U	27.3	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	9.2	37.6	31	7.8	5.8	6.4	19.8	10.1	10.3	24
Hardness (as CaCO ₃)	-	-	(mg/l)	180	72	88	40	160	80	34	58	40	48
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.88	3.4	3.1	3.63	2.47	2.03	1.6	1.7	2.46	1.66
Phenols, total	0.001 ST	-	(mg/l)	0.0010 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	19.9	6	18.9	13.8	17.9	16.6	15.9	22.3	15.9	15.8
Total Organic Carbon	-	-	(mg/l)	1.9	1 U	1.2	1.6	1 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	65	164	140	74	54	84	89	99	74	90
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.7	0.84	1.6	0.1 U	0.1 U	0.92	1.03	0.62	1.02	1.5

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-071 5/20/04 (mg/l)	MW-071 8/20/04 (mg/l)	MW-071 11/9/04 (mg/l)	MW-071 2/28/05 (mg/l)	MW-071 5/27/05 (mg/l)	MW-071 8/24/05 (mg/l)	MW-071 11/29/05 (mg/l)	MW-071 2/28/06 (mg/l)	MW-071 5/22/06 (mg/l)	MW-071 8/10/06 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	NS	NS	5 U	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	16.8	23	25.2	23.6	23	23.3	20.6	20.4	19	20.4
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.41	0.1 U	1.04	1.17	1.07	0.68	0.73	0.74	0.1 U	0.6
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	4	2 U	5	2 U	2 U	2 U	3	17	2
Bromide	2 GV	24959-67-9	(mg/l)	1.7	1.7	2.7	2.8	0.7	2.4	2.1	1.7	1.9	2.2
Chemical Oxygen Demand	-	-	(mg/l)	30.5	10 U	172	14.3	11.8	10 U	10 U	16	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	28.4	27.6	24	21.5	21.6	22.7	25.5	24.3	84.1	64.7
Hardness (as CaCO ₃)	-	-	(mg/l)	100	30	43	47	54	70	62	46	165	105
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	2.66	4.72	2.66	2.76	2.89	2.61	1.8	1.28	2.93	1.66
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	21.8	20.4	13.9	17.2	19.3	25.8	27.8	15.4	30.7	29.2
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1	1 U	1.02	1.7	1 U	1.6	1.5	2.6
Total Dissolved Solids	-	-	(mg/l)	114	129	111	101	112	214	147	117	332	265
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.53	2.75	2.08	1.3	1.27	0.75	0.61	0.95	1.49	0.88

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

: Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-071 11/28/06 (mg/l)	MW-071 2/22/07 (mg/l)	MW-071 5/24/07 (mg/l)	MW-071 8/10/07 (mg/l)	MW-071 11/14/07 (mg/l)	MW-071 2/11/08 (mg/l)	MW-071 5/19/08 (mg/l)	MW-071 8/5/08 (mg/l)	MW-071 11/5/08 (mg/l)	MW-071 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	20.4	14.7	27.9	U*	33.8	26.4	35.6	40.2	49.6	40.7
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.36	0.10 U	0.10 U	1.68	1.76	1.22	0.93	0.86	0.2	0.32
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	4	3	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	15.5	10 U	10 U	10 U	10 U	10 U	10 U	14.4	10 U
Chloride	250 ST	16887-00-6	(mg/l)	57.5	49.7	43.7	35.0	37.7	46.0	44.3	44.6	49.0	36.5
Hardness (as CaCO ₃)	-	-	(mg/l)	65.0	54.0	55.0	56.0	44.0	75	62.0	68.0	76.0	160
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.91	1.47	1.52	10 U	1.05	2.74	0.1 U	1.32	1.24	0.75
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	10	11.5	28.9	24.1	21.9	14.7	10.1	6.75	6.98	11.4
Total Organic Carbon	-	-	(mg/l)	1 U	1.2	1.7	3	1.4	1.1	8.9	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	190	148	147	162	326	126	149	163	157	123
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.52	0.87	1.47	U*	1.98	2.04	1.18	0.88	0.24	0.58

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-071 8/14/09 (mg/l)	MW-071 2/8/10 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	29.5	22.0
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.13	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	7
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	74.0	43.3
Hardness (as CaCO ₃)	-	-	(mg/l)	68.0	41.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.77	2.60
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	20.6	12.9
Total Organic Carbon	-	-	(mg/l)	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	243	136
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.70	1.78

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-11D 10/31/97 (mg/l)	MW-11D 12/13/2000 (mg/l)	MW-11D 02/07/2001 (mg/l)	MW-11D 8/22/02 (mg/l)	MW-11D 11/21/02 (mg/l)	MW-11D 3/6/03 (mg/l)	MW-11D 6/4/03 (mg/l)	MW-11D 8/21/03 (mg/l)	MW-11D 11/13/03 (mg/l)	MW-11D 3/1/04 (mg/l)
Color (APHA Units)	-	-	(units)	80	5 U	5 U	NS	5	NS	NS	5	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	36.8	3.6	6.8	5.2	4.4	4	3.7	2.9	3.8	3.3
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.5	0.14	0.481	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.23
Biochemical Oxygen Demand	-	-	(mg/l)	4	2	2 U	2 U	2 U	2 U	2 U	6	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.9	0.8	0.6	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	40	10 U	10 U	12.7	10 U	22	11.9	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	13.3	7.9	10.3	5.4	17.3	13.9	16.6	19	18.2	23.8
Hardness (as CaCO ₃)	-	-	(mg/l)	26	17	28	24	11.0	22	24	28	43	30
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.5	1.9	1.79	0.74	1.91	1.96	2.59	3.67	4.92	4.17
Phenols, total	0.001 ST	-	(mg/l)	0.0003	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	31.3	11.3	10.9	17.2	12	13.5	10.1	9.3	12.1	8.6
Total Organic Carbon	-	-	(mg/l)	5.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	124	61	84	60	109	69	88	126	103	194
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.58	0.1 U	0.46	0.1 U	0.1 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-11D 5/21/04 (mg/l)	MW-11D 8/24/04 (mg/l)	MW-11D 11/11/04 (mg/l)	MW-11D 2/24/05 (mg/l)	MW-11D 5/26/05 (mg/l)	MW-11D 8/25/05 (mg/l)	MW-11D 11/28/05 (mg/l)	MW-11D 2/27/06 (mg/l)	MW-11D 5/19/06 (mg/l)	MW-11D 8/11/06 (mg/l)
Color (APHA Units)	-	-	(units)	20	NS	NS	5	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	26.4	19.2	7.8	7.8	5.8	5.9	4.2	17.8	8	4.9
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.12	0.1 U	0.1 U	0.1 U	0.1 U	0.16	0.1 U	0.32	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	2.3	0.8	0.9	0.8	0.9	0.5 U	0.5 U	0.6
Chemical Oxygen Demand	-	-	(mg/l)	45.4	10 U	10 U	19.3	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	18.3	16.9	19.3	26.7	25	20.1	21.2	21.1	21.1	22.6
Hardness (as CaCO ₃)	-	-	(mg/l)	120	24	42	40	46	40	34	40	35	44
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	4.32	4.4	4.65	3.9	3.44	3.42	3.86	2.14	1.82	2.22
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	13.7	13	10.3	10.7	11.1	14.4	17.1	22.5	20.9	20.6
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.2	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	70	274	144	160	153	219	120	133	117	17
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.18	0.65	0.1 U	0.27	0.1 U	0.1 U	0.15	1.75	0.1 U	1.76

NOTES:

N/A: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

Concentration exceeds Standard/Guidance Value

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE: UNITS	MW-11D 11/29/06 (mg/l)	MW-11D 2/28/07 (mg/l)	MW-11D 6/1/07 (mg/l)	MW-11D 8/1/07 (mg/l)	MW-11D 11/14/07 (mg/l)	MW-11D 2/12/08 (mg/l)	MW-11D 5/14/08 (mg/l)	MW-11D 8/6/08 (mg/l)	MW-11D 11/5/08 (mg/l)	MW-11D 2/25/09 (mg/l)
Color (APHA Units)	-	-	(units)	10	5	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	8.6	9.0	20.6	10.0	8.0	5.6	5.2	4.2	5.30	3.90
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1.07	0.5 U	0.5 U	0.5 U	0.05 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	30.7	10 U	10.5	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	19.6	25.0	21.9	22.9	23.1	21.4	19.6	20.6	20.7	15.6
Hardness (as CaCO ₃)	-	-	(mg/l)	40.0	44.0	52.0	50.0	42.0	36.0	36.0	30.0	34.0	120
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	3.43	5.86	5.38	6.05	6.57	5.48	5.90	5.87	28.6	4.16
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	20.9	21.7	27.8	21.8	18.7	18.6	16.7	15.8	16.4	19.3
Total Organic Carbon	-	-	(mg/l)	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	133	130	155	166	169	128	121	115	103	211
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.46	0.63	1.07	0.1 U	0.2	0.15	0.1 U	0.1 U	0.1 U	0.1 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE: UNITS	MW-11D 8/13/09 (mg/l)	MW-11D 2/5/10 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	250
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	9.55	101
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	19.9	39.0
Hardness (as CaCO ₃)	-	-	(mg/l)	27.0	105
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	2.77	2.22
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	24.4	15.9
Total Organic Carbon	-	-	(mg/l)	1 U	2.5
Total Dissolved Solids	-	-	(mg/l)	104	197
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	7.58

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration



Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE	MW-111 10/31/97 (mg/l)	MW-111 12/13/2000 (mg/l)	MW-111 02/07/2001 (mg/l)	MW-111 8/22/02 (mg/l)	MW-111 11/21/02 (mg/l)	MW-111 3/6/03 (mg/l)	MW-111 6/4/03 (mg/l)	MW-111 8/21/03 (mg/l)	MW-111 11/13/03 (mg/l)	MW-111 3/1/04 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	5 U	NS	5 U	NS	NS	5	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	27.6	34.2	27.4	14.4	28.2	58	57.6	32.9	28.6	48
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.99	1.1	0.91	0.1 U	0.1 U	1.15	0.1 U	0.1 U	0.1 U	1.15
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2	2 U	3	4	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.6	0.8	0.8	0.5 U	0.5 U	0.7
Chemical Oxygen Demand	-	-	(mg/l)	15 U	10 U	10 U	12.7	10 U	16.7	10 U	10 U	10 U	15.6
Chloride	250 ST	16887-00-6	(mg/l)	40.4	17.3	17.5	7	24.3	7.7	14.3	19.7	11.7	22.7
Hardness (as CaCO ₃)	-	-	(mg/l)	54	34	40	40	180	56	62	40	36	48
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.13	0.42	1.8	3.07	1.85	0.1 U	1.03	1.01	0.96	0.53
Phenols, total	0.001 ST	-	(mg/l)	0.001	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	14.9	6.8	7	5	7.9	10	5.8	10.7	12.9	5 U
Total Organic Carbon	-	-	(mg/l)	1.6	1.3	1 U	1.1	1 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	96	42	63	58	152	109	84	103	78	110
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.5	1.2	0.79	0.1	0.19	0.99	1.18	0.8	0.36	1.11

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE	MW-111 5/21/04 (mg/l)	MW-111 8/24/04 (mg/l)	MW-111 11/11/04 (mg/l)	MW-111 2/24/05 (mg/l)	MW-111 5/26/05 (mg/l)	MW-111 8/25/05 (mg/l)	MW-111 11/28/05 (mg/l)	MW-111 2/27/06 (mg/l)	MW-111 5/19/06 (mg/l)	MW-111 8/11/06 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	NS	NS	5	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	37.8	28.8	27.8	19.4	32.4	24	26.1	33.4	19.2	17.3
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.19	0.1 U	0.15	0.1 U	1.08	0.79	0.58	0.73	0.1 U	0.13
Biochemical Oxygen Demand	-	-	(mg/l)	4	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1.7	0.5 U	1.7	0.5 U	0.6	1.5	1.8	0.9	1	0.6
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10 U	10 U	16.8	13.5	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	14.1	10	15.3	17.5	15.1	9.6	11.6	8.1	9	7.3
Hardness (as CaCO ₃)	-	-	(mg/l)	150	25	45	52	52	45	40	48	31	30
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.33	1.85	0.74	1.16	1.5	2.11	0.89	0.21	1.31	1.14
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	0.5 U	1.1	10.7	13.4	14.4	15.4	12.2	28.2	13.6	11.7
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	38	149	83	92	107	155	87	110	81	67
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.93	0.88	0.79	0.12	0.85	0.77	0.7	0.82	0.52	0.56

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

: Concentration exceeds Standard/Guidance Value

J*-Value is an approximate concentration of the analyte in the sample as determined by data validation

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-111 11/29/06 (mg/l)	MW-111 2/28/07 (mg/l)	MW-111 6/1/07 (mg/l)	MW-111 8/16/07 (mg/l)	MW-111 11/14/07 (mg/l)	MW-111 2/12/08 (mg/l)	MW-111 5/14/08 (mg/l)	MW-111 8/6/08 (mg/l)	MW-111 11/5/08 (mg/l)	MW-111 2/25/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	11.8	5.8	8.8	4.4	4.9	3.4	3.4	2.8	3.05	1.45
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.29	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	4.9	5.3	6.3	5.2	4.8	7.1	22.5	12.3	10.1	9.10
Hardness (as CaCO ₃)	-	-	(mg/l)	16.0	12.0	19.0	18.0	24.0	18.0	36.0	15.0	60.0	90.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.78	0.70	1.12	0.53	0.62	0.60	2.38	0.65	0.30	0.20
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	11.0	13.1	14.5	16.9	18.9	15.1	8.93	11.5	12.7	11.1
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	58	47	53	71	78	60	104	63	53	82
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.28	0.62	0.72	0.1 U	0.10 U	0.1 U	0.1 U	0.23	0.1 U	0.1 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS :	MW-111 8/13/09 (mg/l)	MW-111 2/5/10 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	2.05	2.95
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	8.38	5.77
Hardness (as CaCO ₃)	-	-	(mg/l)	13	11.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.23	0.16
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	16.7	10.6
Total Organic Carbon	-	-	(mg/l)	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	64	47
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.1 U

NOTES

NA. Not analyzed

U. Analyzed for but not detected, value shown is instrument detection limit

J. Estimated value

UJ* Value was not detected above quantitation limit but was an approximate concentration

 Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-11S 10/31/97 (mg/l)	MW-11S 12/13/2000 (mg/l)	MW-11S 02/07/2001 (mg/l)	MW-11S 8/22/02 (mg/l)	MW-11S 11/21/02 (mg/l)	MW-11S 3/6/03 (mg/l)	MW-11S 6/4/03 (mg/l)	MW-11S 8/21/03 (mg/l)	MW-11S 11/13/03 (mg/l)	MW-11S 3/1/04 (mg/l)
Color (APHA Units)	-	-	(units)	100	5 U	5 U	NS	5	NS	NS	10	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	127	134	135	91.2	133	106	125	174	206	160
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1	1.3	1.51	1.16	0.1 U	0.58	0.1 U	0.1 U	0.1 U	0.35
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	6	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5	0.8	0.5 U	0.5	0.5 U	0.5 U	1.2
Chemical Oxygen Demand	-	-	(mg/l)	22	10 U	11	12.7	10 U	19.3	19.2	10 U	21.6	20.5
Chloride	250 ST	16887-00-6	(mg/l)	65.1	50.7	36.1	35.1	21.3	23	97.7	139	96.6	86.4
Hardness (as CaCO ₃)	-	-	(mg/l)	120	210	156	120	230	156	250	270	290	220
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.28	0.21	0.25	2.6	2.25	1.6	1.65	1.31	1.52	1.59
Phenols, total	0.001 ST	-	(mg/l)	0.002	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	42.1	28.6	49.6	29.2	41	64.8	80.5	68	76.4	45.5
Total Organic Carbon	-	-	(mg/l)	3.7	4.6	3.33	2.8	2.8	4	3.8	7.2	5	4
Total Dissolved Solids	-	-	(mg/l)	261	253	254	179	326	250	423	560	465	392
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.2	1.5	7.76	4.53	0.18	0.77	0.26	0.34	0.31	0.32

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-11S 5/21/04 (mg/l)	MW-11S 8/24/04 (mg/l)	MW-11S 11/11/04 (mg/l)	MW-11S 2/24/05 (mg/l)	MW-11S 5/26/05 (mg/l)	MW-11S 8/25/05 (mg/l)	MW-11S 11/28/05 (mg/l)	MW-11S 2/27/06 (mg/l)	MW-11S 5/19/06 (mg/l)	MW-11S 8/11/06 (mg/l)
Color (APHA Units)	-	-	(units)	5	NS	NS	5	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	113	117	151	96	116	120	134	140	134	148
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.81	0.1 U	2.35	2.3	3.46	2.35	0.72	0.42	0.1 U	1.12
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2
Bromide	2 GV	24959-67-9	(mg/l)	1.8	0.6	0.8	2.0	0.5	1.1	1.2	0.5	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	25.5	10 U	10 U	11.8	10 U	16.8	34.3	13.5	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	79.6	71.7	57.3	76.9	88.5	65.4	87.6	82.8	52.9	105
Hardness (as CaCO ₃)	-	-	(mg/l)	450	120	208	220	220	200	300	215	190	205
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.04	2.87	1.15	1.21	1.07	1.2	1.71	1.07	0.48	0.81
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	61	55.8	48.8	45.8	50.3	72.5	93.5	74.5	46	59
Total Organic Carbon	-	-	(mg/l)	4.2	3.8	4.9	3.7	3.7	4.3	5.5	4.3	3.1	5.5
Total Dissolved Solids	-	-	(mg/l)	300	532	322	339	366	442	330	413	308	453
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.65	1.27	1.93	2.69	3.54	2.31	1.7	0.85	0.58	1.09

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate percent

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS :	MW-11S 11/29/06 (mg/l)	MW-11S 2/23/07 (mg/l)	MW-11S 6/1/07 (mg/l)	MW-11S 8/16/07 (mg/l)	MW-11S 11/14/07 (mg/l)	MW-11S 2/12/08 (mg/l)	MW-11S 5/14/08 (mg/l)	MW-11S 8/6/08 (mg/l)	MW-11S 11/5/08 (mg/l)	MW-11S 2/25/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	30	NA	NA	NA	NA	NA	NA	20.0	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	140	136	136	151	151	152	148	129	108	100
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.64	0.10 U	0.10 U	2.06	1.19	0.70	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	4	4	2 U	2 U	2 U	6	3	4.2	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	16.0	51.0	89	23.1	28.2	21.8	71.4	41.7	14.4	10.9
Chloride	250 ST	16887-00-6	(mg/l)	46.6	39.8	53.9	62.8	60.3	41.0	53.3	64.9	84.5	49.1
Hardness (as CaCO ₃)	-	-	(mg/l)	130	140	180	160	128	122	200	156	180	240
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.59	0.41	1.09	0.93	0.63	0.64	0.85	0.68	0.46	0.35
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	31.4	27.7	51.1	63.4	47.8	35.0	38.2	54.9	38.1	33.3
Total Organic Carbon	-	-	(mg/l)	3.4	3.8	8.0	6.6	5.9	4.1	5.7	5.4	3.8	2.6
Total Dissolved Solids	-	-	(mg/l)	277	276	322	373	345	283	323	369	317	265
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	2.04	3.82	4.8	3.36	2.7	3.05	1.90	4.21	2.92	0.92

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS :	MW-11S 8/13/09 (mg/l)	MW-11S 2/5/10 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	118	150
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	23.0	10 U
Chloride	250 ST	16887-00-6	(mg/l)	61.6	92.0
Hardness (as CaCO ₃)	-	-	(mg/l)	145	170
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.21	1.42
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	63.3	49.2
Total Organic Carbon	-	-	(mg/l)	3.8	5.0
Total Dissolved Solids	-	-	(mg/l)	286	380
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.01 U*	1.19 U

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

 Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS :	MW-12D 10/31/97 (mg/l)	MW-12D 12/08/2000 (mg/l)	MW-12D 02/07/2001 (mg/l)	MW-12D 8/22/02 (mg/l)	MW-12D 11/21/02 (mg/l)	MW-12D 3/6/03 (mg/l)	MW-12D 6/4/03 (mg/l)	MW-12D 8/21/03 (mg/l)	MW-12D 11/3/03 (mg/l)	MW-12D 3/1/04 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	5 U	NS	5	NS	NS	5	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	19.3	7.3	7.8	6.7	6.8	8.4	7.9	8.1	7.4	6.7
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.02 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	3	7	4	2 U	2 U	2 U	4	7	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	15 U	10 U	10 U	15.1	10 U	10 U	10 U	10 U	11.9	10 U
Chloride	250 ST	16887-00-6	(mg/l)	11.7	4.7	5.71	3.1	4.3	5.6	8.9	6.2	4.2	4.8
Hardness (as CaCO ₃)	-	-	(mg/l)	34	15	28	16	36	64	34	36	33	22
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.32	0.38	0.31	0.13	0.24	0.58	0.66	0.63	0.54	0.75
Phenols, total	0.001 ST	-	(mg/l)	0.002	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	19.5	20.1	12.8	6.9	11.9	17.1	15.6	16.6	13.5	8.3
Total Organic Carbon	-	-	(mg/l)	0.5 U	2.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	45	77	380	37	69	78	58	88	50	10 U
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.2 U	0.1 U	8.54	0.16	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS :	MW-12D 5/21/04 (mg/l)	MW-12D 8/24/04 (mg/l)	MW-12D 11/11/04 (mg/l)	MW-12D 2/24/05 (mg/l)	MW-12D 5/26/05 (mg/l)	MW-12D 8/25/05 (mg/l)	MW-12D 11/28/05 (mg/l)	MW-12D 2/27/06 (mg/l)	MW-12D 5/19/06 (mg/l)	MW-12D 8/11/06 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	NS	NS	5 U	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	6.8	7	7.4	7.1	6.7	6.9	7.4	10.4	11.2	19.6
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.1 U	0.1 U	0.13	0.11	0.1 U	0.13	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.6	0.7	0.7	1	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	3.6	4.3	4.0	6.1	4.5	4.9	5.8	5.4	5.5	5
Hardness (as CaCO ₃)	-	-	(mg/l)	36	5 U	18	18	19	15	20	22	21	26
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.29	0.30	0.26	0.16	0.13	0.19	0.4	0.33	0.25	0.25
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	11.3	11.7	10.5	11.1	9.5	10.8	11	11.7	13.5	34
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	25	113	52	58	49	77	75	72	59	70
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.97	0.1 U	0.26	0.1 U	0.1 U	0.9	0.1 U	0.1 U	0.1 U

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

: Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class CA Groundwater Standards and Guidance Values	CAS #	SITE DATE : UNITS:	MW-12D 11/29/06 (mg/l)	MW-12D 2/23/07 (mg/l)	MW-12D 6/1/07 (mg/l)	MW-12D 8/16/07 (mg/l)	MW-12D 11/14/07 (mg/l)	MW-12D 2/12/08 (mg/l)	MW-12D 5/14/08 (mg/l)	MW-12D 8/6/08 (mg/l)	MW-12D 11/5/08 (mg/l)	MW-12D 2/25/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	1 U	23.9	12.3	8.8	7.8	8.8	10.1	10	9.75	7.95
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.10	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	6	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	13.5	23.1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	5.5	6.9	7.7	10.6	20.5	21.7	27.6	31.0	29.3	33.6
Hardness (as CaCO ₃)	-	-	(mg/l)	26.0	50.0	32.0	40.0	52.0	50.0	56.0	52.0	52.0	130
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.67	0.70	1.84	2.3	2.25	1.55	1.67	1.67	2.04	2.05
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	14.8	16.4	18.8	22.0	25.8	28.7	25.0	24.0	21.1	20.1
Total Organic Carbon	-	-	(mg/l)	1 U	1.0 U	1.0 U	1.0 U	1.3	1 U	1 U	1 U	1.09	1 U
Total Dissolved Solids	-	-	(mg/l)	71	70	69	85	128	112	128	140	1 U	127
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.14	0.95	0.55	0.1 U	0.10 U	0.1 U	0.1 U	0.18	0.1 U	0.1 U

CONSTITUENT	NYSDEC Class CA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS:	MW-12D 8/13/09 (mg/l)	MW-12D 2/5/10 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	9.15	12.8
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	40.1	26.4
Hardness (as CaCO ₃)	-	-	(mg/l)	53.0	42.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.79	1.79
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	30.8	20.8
Total Organic Carbon	-	-	(mg/l)	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	119	110
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.1 U

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concent

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-121 10/31/97 (mg/l)	MW-121 12/07/2000 (mg/l)	MW-121 02/08/2001 (mg/l)	MW-121 8/22/02 (mg/l)	MW-121 11/21/02 (mg/l)	MW-121 3/6/03 (mg/l)	MW-121 6/4/03 (mg/l)	MW-121 8/21/03 (mg/l)	MW-121 11/13/03 (mg/l)	MW-121 3/1/04 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	5 U	NS	10	NS	NS	5	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	10.5	31.8	17.2	2.8	6.8	4.4	7.1	3.1	4.4	4.2
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.51	0.61	0.703	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.14
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	6	2 U	2 U	2 U	2 U	2 U	6	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.700	0.5 U	1.1	1	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	16	10 U	10 U	10 U	39.6	14	10 U	10 U	10 U	15.6
Chloride	250 ST	16887-00-6	(mg/l)	17.5	14.9	13.1	4.5	8.4	4.6	13.1	7.9	4.8	5.5
Hardness (as CaCO ₃)	-	-	(mg/l)	54	52	36.0	16	1900	32	32	20	26	24
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	4.7	0.73	1.1	0.93	1.54	0.33	0.53	0.21	1.3	0.7
Phenols, total	0.001 ST	-	(mg/l)	0.0010 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	43.1	48.3	24.2	10	10.4	11.6	11.3	8.6	9.8	6.9
Total Organic Carbon	-	-	(mg/l)	3.6	1.2	0.0010 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	106	143	90	39	79	55	62	49	40	14
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.46	0.84	8.30	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.13

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE UNITS	MW-121 5/21/04 (mg/l)	MW-121 8/24/04 (mg/l)	MW-121 11/11/04 (mg/l)	MW-121 2/24/05 (mg/l)	MW-121 5/26/05 (mg/l)	MW-121 8/25/05 (mg/l)	MW-121 11/28/05 (mg/l)	MW-121 2/27/06 (mg/l)	MW-121 5/19/06 (mg/l)	MW-121 8/11/06 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	NS	NS	5	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	3.5	5.6	6.4	29.6	4.3	5.4	14.4	29.4	15.7	7.9
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.29	0.1 U	0.29	0.1 U	1.11	0.49	0.15	0.56
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	5	2 U	2 U	2 U	2 U	2 U	3	3
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.6	1.2	0.7	0.5 U	0.5 U	1.3	0.5 U	0.5	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	14.3	10 U	10 U	13.5	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	4.3	12.5	28.1	45.5	10.5	18.5	29.2	27	26.2	15.9
Hardness (as CaCO ₃)	-	-	(mg/l)	22	10	34	66	18	22	49	80	70	40
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.52	1.65	1.23	0.72	0.52	0.86	0.26	0.77	3.73	1.41
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	8.8	7.6	6.7	8.7	9	7.5	29.6	35	51.8	35.4
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1.4	1 U	1 U	1.9	3.3	1.5	1.3
Total Dissolved Solids	-	-	(mg/l)	47	152	77	136	50	101	127	153	155	112
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.56	0.5	0.53	0.24	0.36	2.13	0.69	4.15	2.89

NOTES:

N/A: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE	UNITS	MW-121 11/29/06	MW-121 2/23/07	MW-121 6/1/07	MW-121 8/16/07	MW-121 11/14/07	MW-121 2/12/08	MW-121 5/14/08	MW-121 8/6/08	MW-121 11/5/08	MW-121 2/25/09
Color (APHA Units)	-	-	(units)	5 U	5	5	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	21.8	58.8	4	24.6	24.6	17.8	20.2	22.4	31.1	23.7	34.0
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	3.71	1.02	0.10 U	0.10 U	2.42	0.64	0.23	3.96	3.92 J*	0.2	2.32
Biochemical Oxygen Demand	-	-	(mg/l)	5	50	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1.0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	78.8	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	12.9	21.7	12.6	14.8	14.8	18.1	14.2	17.9	12.2	10.7	23.1
Hardness (as CaCO ₃)	-	-	(mg/l)	24.0	84.0	14.0	13.0	13.0	22.0	23.0	24.0	23.0	26.0	14.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	2.61	0.11	1.46	1.03	1.03	2.14	1.92	1.48	1.61	1.72	1.48
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	26.4	31.1	20.8	8.0	8.0	5.0 U	11.7	14.80	14.3	15.2	14.0
Total Organic Carbon	-	-	(mg/l)	1.1	21.3	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Dissolved Solids	-	-	(mg/l)	97	124	74	62	62	54	72	84	79	58	105
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	7.67	3.99	3.95	3.11	3.11	3.32	3.84	4.45	5.58	3.31	3.81

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE DATE	UNITS	MW-121 8/13/09	MW-121 2/5/10
Color (APHA Units)	-	-	(units)	5 U	20	
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	17.0	1 U	
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.64	0.1 U	
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	
Chemical Oxygen Demand	-	-	(mg/l)	10.9	10 U	
Chloride	250 ST	16887-00-6	(mg/l)	46.1	20.0	
Hardness (as CaCO ₃)	-	-	(mg/l)	30.0	24.0	
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.48	3.88	
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	
Sulfate	250 ST	14808-79-8	(mg/l)	23.2	11.0	
Total Organic Carbon	-	-	(mg/l)	1 U	1.0	
Total Dissolved Solids	-	-	(mg/l)	155	77	
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	6.49	1.13 U	

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation.

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-12S 10/5/197 (mg/l)	MW-12S 12/07/2000 (mg/l)	MW-12S 02/05/2001 (mg/l)	MW-12S 8/22/02 (mg/l)	MW-12S 11/21/02 (mg/l)	MW-12S 3/6/03 (mg/l)	MW-12S 6/4/03 (mg/l)	MW-12S 8/21/03 (mg/l)	MW-12S 11/13/03 (mg/l)	MW-12S 3/1/04 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	5	NS	5	NS	NS	5	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	102	104	98	113	111	77.8	74.3	141	150	118
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.11	0.02 U	0.07 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	3	2	2 U	2 U	2 U	2 U	2 U	4	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	1.4	0.5 U	0.8	0.5 U	0.5	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	16	10 U	10 U	10 U	10 U	16.7	21.6	10 U	10 U	13.1
Chloride	250 ST	16887-00-6	(mg/l)	21	16	24	15.7	17.7	113	25.6	11.2	25.8	52.2
Hardness (as CaCO ₃)	-	-	(mg/l)	90	96	100	140	108	108	82	110	220	120
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.75	0.67	0.4	2.21	1.14	0.89	0.58	1.54	1.89	1.18
Phenols, total	0.001 ST	-	(mg/l)	0.0010 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	32.8	36.4	13.4	37.5	27.6	32.1	23.3	32	38.4	24.4
Total Organic Carbon	-	-	(mg/l)	2.3	1.7	2.2	3.3	1.7	1.9	1.6	1.8	2	1.6
Total Dissolved Solids	-	-	(mg/l)	170	175	250	185	290	352	151	241	265	296
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.21	0.2 U	0.12	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.22	0.13

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-12S 5/21/04 (mg/l)	MW-12S 8/24/04 (mg/l)	MW-12S 11/11/04 (mg/l)	MW-12S 2/24/05 (mg/l)	MW-12S 5/26/05 (mg/l)	MW-12S 8/25/05 (mg/l)	MW-12S 11/28/05 (mg/l)	MW-12S 2/27/06 (mg/l)	MW-12S 5/19/06 (mg/l)	MW-12S 8/11/06 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	NS	NS	5 U	NS	NS	NS	NS	NS	NS
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	119	130	74	97.1	98	105	65.2	76.4	70.8	59
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.13	0.1 U	0.1 U	0.11	0.12	0.19	1.24	0.46	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.7	1.8	0.5	0.5 U	1	1.4	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	21.8	29.3	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	31.6	31.6	19.7	24.5	42.2	45.5	48.9	56.6	24	20.5
Hardness (as CaCO ₃)	-	-	(mg/l)	320	88	94	172	128	98	90	105	66	44
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.24	1.76	0.52	0.83	1.06	1.18	1.86	1.79	1.67	2.12
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sulfate	250 ST	14808-79-8	(mg/l)	29.5	54.8	17.7	39.1	28.4	32.6	14.9	21.7	26.8	20.1
Total Organic Carbon	-	-	(mg/l)	1.7	1.8	2.6	1.7	2.7	2.8	1.1	1.8	1.5	1.2
Total Dissolved Solids	-	-	(mg/l)	184	474	170	568	216	382	212	247	181	163
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.18	0.17	0.1 U	0.19	0.21	0.2	1.54	0.65	0.1 U	0.12

NOTES:

NA: Not analyzed

U: Analyzed for but not detected, value shown is instrument detection limit

J: Estimated value

UJ*: Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J*: Value is an approximate concentration of the analyte in the sample as determined by data validation.

Appendix A-1

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-12S 11/29/06 (mg/l)	MW-12S 2/23/07 (mg/l)	MW-12S 6/1/07 (mg/l)	MW-12S 8/16/07 (mg/l)	MW-12S 11/14/07 (mg/l)	MW-12S 2/12/08 (mg/l)	MW-12S 5/14/08 (mg/l)	MW-12S 8/6/08 (mg/l)	MW-12S 11/5/08 (mg/l)	MW-12S 2/25/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	20	NA	NA	NA	NA	NA	NA	30.0	NA
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	73.0	71.2	60.6	60.8	67.2	68	67.2	76.2	86.8	68.4
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U*	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	6.0	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	40.9	10 U	10 U	10 U	10 U	10 U	34.2	19.4	10 U
Chloride	250 ST	16887-00-6	(mg/l)	25.2	25.5	27.7	17.8	23.9	32.9	28.5	32.4	44.1	38.0
Hardness (as CaCO ₃)	-	-	(mg/l)	110	80.0	72.0	64.0	80.0	82	70.0	88.0	85.0	190
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	2.33	2.30	2.32	1.71	2.03	1.46	1.54	1.12	1.37	0.79
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	22.8	25.0	21.6	33.2	29.9	33.2	32.0	34.6	36.2	28.3
Total Organic Carbon	-	-	(mg/l)	1.5	1.4	2.0	1.5	1.1	1.4	1.5	1.9	2.12	1 U
Total Dissolved Solids	-	-	(mg/l)	189	183	159	167	193	196	185	199	2.0	195
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.16	0.75	0.69	0.1 U	0.10 U	0.14	0.10	0.85	0.22	0.13

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-12S 8/13/09 (mg/l)	MW-12S 2/5/10 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	20
Alkalinity (as CaCO ₃)	-	471-34-1	(mg/l)	63.9	81.6
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U
Chemical Oxygen Demand	-	-	(mg/l)	10.9	10 U
Chloride	250 ST	16887-00-6	(mg/l)	48.6	42.1
Hardness (as CaCO ₃)	-	-	(mg/l)	90.0	80.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.81	1.34
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	49.4	29.0
Total Organic Carbon	-	-	(mg/l)	1.4	1.2
Total Dissolved Solids	-	-	(mg/l)	200	192
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.56 U

NOTES:

NA Not analyzed

U Analyzed for but not detected, value shown is instrument detection limit

J Estimated value

UJ* Value was not detected above quantitation limit but was an approximate concentration

Concentration exceeds Standard/Guidance Value

J* Value is an approximate concentration of the analyte in the sample as determined by data validation.

APPENDIX A-2

Inorganic Parameters

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	SITE: DATE: UNITS:	MW-01D 10/24/1997 (ug/l)	MW-01D 11/30/2000 (ug/l)	MW-01D 1/30/2001 (ug/l)	MW-01D 8/21/2002 (ug/l)	MW-01D 11/20/2002 (ug/l)	MW-01D 3/5/2003 (ug/l)	MW-01D 6/3/2003 (ug/l)	MW-01D 8/21/2003 (ug/l)
Aluminum	-	7429-90-5	ug/l	105	59.6 B	79.6 B	NA	131 B	NA	NA	39.8 B
Antimony	3 GV	7440-36-0	ug/l	3 U	1.7 U	12.3 U	NA	4.4 B	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	ug/l	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	ug/l	111	124 B	87.6	NA	93	NA	NA	22.4 B
Beryllium	3 GV	7440-41-7	ug/l	0.13	0.1 U	0.21	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	ug/l	NA	102	161	NA	113	NA	NA	139
Cadmium	5 ST	7440-43-9	ug/l	0.3 U	0.4 U	0.2 U	0.11 B	0.5 U	0.81 B	0.10 B	0.30 U
Calcium	-	7440-70-2	ug/l	35,300	19500	15200	26,400	24,400	21,100	15,800	5,650
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	ug/l	0.53	3.5 U	0.6 U	NA	3.6 B	NA	NA	0.70 U
Cobalt	-	7440-48-4	ug/l	1.3	2.1 B	1.7 U	NA	5 B	NA	NA	5.0 B
Copper	200 ST	7440-50-8	ug/l	1.9	2 B	2.1	NA	7 B	NA	NA	2.3 B
Iron	300 ST	7439-89-6	ug/l	110	32 B	34.2	205	301	301	120	63.1 B
Lead	25 ST	7439-92-1	ug/l	1.3	1.4 U	1.1 U	0.8 U	1.4 U	3.2	1.7 B	0.80 U
Magnesium	35,000 GV	7439-95-4	ug/l	10,700	6010	4800	9,680	8,130	7,530	5,740	1,710 B
Manganese	300 ST	7439-96-5	ug/l	132	9.9 B	7.3	34.3	28.6	67.5	6.8 B	3.6 B
Mercury	0.7 ST	7439-97-6	ug/l	0.1 U	0.1 U	0.1 U	NA	0.10 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	ug/l	2.2	1.9 U	1.4 U	NA	7.5 B	NA	NA	6.0 B
Potassium	-	7440-09-7	ug/l	6,780	10,400	9,240	7,740	20,500	10,700	6,830	2,390 B
Selenium	10 ST	7782-49-2	ug/l	2.8 U	1.7 U	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	ug/l	0.9 U	0.77 B	1.6 U	NA	1 U	NA	NA	1.0 U
Sodium	20,000 ST	7440-23-5	ug/l	61,000	490,000	390,000	445,000	327,000	346,000	404,000	156,000
Thallium	0.5 GV	7440-28-0	ug/l	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	3.0 B
Vanadium	-	7440-62-2	ug/l	1.2 U	0.7 U	1.7 U	NA	1.4 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	ug/l	39	3.8 B	5.1	NA	190	NA	NA	33.2
Cyanide	200 ST	0057-12-5	ug/l	17	17	20.4	NA	30.4	NA	NA	29
Iron + Manganese	500 ST	-	ug/l	242	41.9	41.5	239.3	329.6	368.5	126.8	66.7

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed.

B Concentration is above instrument detection limit but below contract required detection limit.

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	SITE: DATE: UNITS:	MW-01D 11/10/2003 (ug/l)	MW-01D 2/26/2004 (ug/l)	MW-01D 5/20/2004 (ug/l)	MW-01D 8/19/2004 (ug/l)	MW-01D 11/8/2004 (ug/l)	MW-01D 2/28/2005 (ug/l)	MW-01D 5/25/2005 (ug/l)	MW-01D 8/24/2005 (ug/l)
Aluminum	-	7429-90-5	ug/l	NA	NA	52.5 B	NA	NA	143 B	NA	NA
Antimony	3 GV	7440-36-0	ug/l	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	ug/l	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	ug/l	NA	NA	123 B	NA	NA	284	NA	NA
Beryllium	3 GV	7440-41-7	ug/l	NA	NA	0.2 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	ug/l	NA	NA	173 B	NA	NA	158	NA	NA
Cadmium	5 ST	7440-43-9	ug/l	0.3 U	0.20 U	0.3 U	0.30 U	0.23 U	0.23 U	0.74 B	0.65 U
Calcium	-	7440-70-2	ug/l	1,420 B	19,500	27,800	61,300	62,800	57,100	49,800	38,500
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	ug/l	NA	NA	0.63 B	NA	NA	0.63 U	NA	NA
Cobalt	-	7440-48-4	ug/l	NA	NA	7.2 B	NA	NA	12.4 B	NA	NA
Copper	200 ST	7440-50-8	ug/l	NA	NA	3.6 B	NA	NA	1.1 U	NA	NA
Iron	300 ST	7439-89-6	ug/l	119	79.6 B	96.9 B	61.7 B	22.3 B	59.1 B	64.9 B	192
Lead	25 ST	7439-92-1	ug/l	2.5 B	1.6 U	1.2 U	1.2 U	1.1 U	1.1 U	1.7 U	1.7 U
Magnesium	35,000 GV	7439-95-4	ug/l	504 B	6,270	9,620	17,700	16,300	12,700	10,200	8,020
Manganese	300 ST	7439-96-5	ug/l	3.6 B	9.3 B	17.6	22.5	21	23.4	21.7	28.5
Mercury	0.7 ST	7439-97-6	ug/l	NA	NA	0.1 U	NA	NA	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	ug/l	NA	NA	5.1 B	NA	NA	17.4 B	NA	NA
Potassium	-	7440-09-7	ug/l	1,380 B	5,480	7,230	12,200	13,700	15,300	9,870	8,800
Selenium	10 ST	7782-49-2	ug/l	NA	NA	2.1 U	NA	NA	3 U	NA	NA
Silver	50 ST	7440-22-4	ug/l	NA	NA	0.5 U	NA	NA	0.86 B	NA	NA
Sodium	20,000 ST	7440-23-5	ug/l	103,000	416,000	448,000	569,000	693,000	826,000	711,000	635,000
Thallium	0.5 GV	7440-28-0	ug/l	NA	NA	2.8 U	NA	NA	3.7 B	NA	NA
Vanadium	-	7440-62-2	ug/l	NA	NA	1.7 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	ug/l	NA	NA	32.4	NA	NA	50.9	NA	NA
Cyanide	200 ST	0057-12-5	ug/l	NA	NA	10 U	NA	NA	18	NA	NA
Iron + Manganese	500 ST*	-	ug/l	122.6	88.9	114.5	84.2	43.3	82.5	86.6	220.5

NOTES:

J Estimated due to data validation criteria.

U Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed

B Concentration is above instrument detection limit but below contract required detection limit.

U* Result qualified as non-detect based on validation criteria

ST: Standard
GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	SITE: DATE: UNITS:	MW-01D 11/28/2005 (ug/l)	MW-01D 2/24/2006 (ug/l)	MW-01D 5/17/2006 (ug/l)	MW-01D 8/9/2006 (ug/l)	MW-01D 11/28/2006 (ug/l)	MW-01D 2/21/2007 (ug/l)	MW-01D 5/25/2007 (ug/l)	MW-01D 8/17/2007 (ug/l)
Aluminum	-	7429-90-5	ug/l	NA	NA	NA	NA	137 B	1,290	121 B	NA
Antimony	3 GV	7440-36-0	ug/l	NA	NA	NA	NA	3.2 U	3.2 U	1.9 B	NA
Arsenic	25 ST	7440-38-2	ug/l	NA	NA	NA	NA	2.9 U	2.9 U	2.0 U	NA
Barium	1,000 ST	7440-39-3	ug/l	NA	NA	NA	NA	260	114 B	284	NA
Beryllium	3 GV	7440-41-7	ug/l	NA	NA	NA	NA	0.50 B	0.17 U	0.71 B	NA
Boron	1,000 ST	7440-42-8	ug/l	NA	NA	NA	NA	125 B	85.0 B	166	NA
Cadmium	5 ST	7440-43-9	ug/l	0.3 U	0.46 B	0.34 U	0.94 B	0.78 B	1.2 B	0.39 B	0.80 B
Calcium	-	7440-70-2	ug/l	35,900	35,800	36,100	37,700	53,100	33,800	58,800	51,900
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	ug/l	NA	NA	NA	NA	0.50 B	2.3 B	0.33 U	NA
Cobalt	-	7440-48-4	ug/l	NA	NA	NA	NA	29.1 B	14.5 B	21.6 B	NA
Copper	200 ST	7440-50-8	ug/l	NA	NA	NA	NA	5.0 B	11.2 B	0.44 U	NA
Iron	300 ST	7439-89-6	ug/l	53.9 B	83.5 B	58.0 B	74.2 B	147	1,470	53.1 B	74.8 B
Lead	25 ST	7439-92-1	ug/l	1.6 U	1.3 U	1.9 U	1.9 U	1.5 U	12.7	1.1 U	1.7 U
Magnesium	35,000 GV	7439-95-4	ug/l	7,250	7,570	7,600	8,340	14,000	8,340	15,800	12,100
Manganese	300 ST	7439-96-5	ug/l	31.2	47.9	65.8	105	310	118	882	1,570
Mercury	0.7 ST	7439-97-6	ug/l	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	ug/l	NA	NA	NA	NA	14.4 B	6.9 B	15.8 B	NA
Potassium	-	7440-09-7	ug/l	7,840	11,000	8,880	10,600	13,400	23,800	12,700	10,400
Selenium	10 ST	7782-49-2	ug/l	NA	NA	NA	NA	2.0 B	3.4 B	3.0 U	NA
Silver	50 ST	7440-22-4	ug/l	NA	NA	NA	NA	0.71 B	0.40 B	1.3 B	NA
Sodium	20,000 ST	7440-23-5	ug/l	727,000	750,000	158,000	791,000	965,000	457,000	950,000	U*
Thallium	0.5 GV	7440-28-0	ug/l	NA	NA	NA	NA	2.9 U	3.4 B	2.2 U	NA
Vanadium	-	7440-62-2	ug/l	NA	NA	NA	NA	1.4 U	3.1 B	1.1 U	NA
Zinc	2,000 ST	7440-66-6	ug/l	NA	NA	NA	NA	59.2	346	U*	NA
Cyanide	200 ST	0057-12-5	ug/l	NA	NA	NA	NA	65.5	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	ug/l	85.1	131.4	123.8	179.2	457	1,588	935.1	1,644.8

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection limit.

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	SITE: DATE: UNITS:	MW-01D 11/9/2007 (ug/l)	MW-01D 2/11/2008 (ug/l)	MW-01D 5/15/2008 (ug/l)	MW-01D 8/5/2008 (ug/l)	MW-01D 11/3/2008 (ug/l)	MW-01D 2/24/2009 (ug/l)	MW-01D 8/12/2009 (ug/l)	MW-01D 2/4/2010 (ug/l)
Aluminum	-	7429-90-5	ug/l	NA	NA	NA	NA	75.1 B	NA	1,130	268
Antimony	3 GV	7440-36-0	ug/l	NA	NA	NA	NA	2.3 U	NA	2.5 U	6.2 B
Arsenic	25 ST	7440-38-2	ug/l	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	ug/l	NA	NA	NA	NA	59.8 B	NA	35.8 B	30.2 B
Beryllium	3 GV	7440-41-7	ug/l	NA	NA	NA	NA	0.10 B	NA	0.13 U	0.91 B
Boron	1,000 ST	7440-42-8	ug/l	NA	NA	NA	NA	54.5 BN	NA	52.0 B	32.0 B
Cadmium	5 ST	7440-43-9	ug/l	2.0 B	0.32 U	0.27 U	0.27 U	0.35 U	0.35 U	0.60 B	4.0 B
Calcium	-	7440-70-2	ug/l	5,160	24,200	11,900	5,180	3,420 B	3,680 B	4,810 B	11,100
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	NA	NA	NA	1.1 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	ug/l	NA	NA	NA	NA	0.02 U	NA	2.6 B	2.1 B
Cobalt	-	7440-48-4	ug/l	NA	NA	NA	NA	1.9 B	NA	1.5 B	1.4 B
Copper	200 ST	7440-50-8	ug/l	NA	NA	NA	NA	3.1 B	NA	3.3 B	10.6 B
Iron	300 ST	7439-89-6	ug/l	1,280	97.2 B	180	276	78.6 B	69.6 B	1,040	315 J*
Lead	25 ST	7439-92-1	ug/l	4.9 J	1.5 B	2.3 U	2.3 U	1.3 U	1.3 U	33	3.8
Magnesium	35,000 GV	7439-95-4	ug/l	1,320 B	5,250	2,840 B	1,330 B	811 B	892 B	1,210 B	2,900 B
Manganese	300 ST	7439-96-5	ug/l	106	990	352	184	126	137	123	72.7
Mercury	0.7 ST	7439-97-6	ug/l	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	ug/l	NA	NA	NA	NA	1.7 B	NA	2.0 B	2.9 B
Potassium	-	7440-09-7	ug/l	33,400 J	33,400 J	2,360 B	2,040 B	1,550 B	1,750 B	1,840 B	6370
Selenium	10 ST	7782-49-2	ug/l	NA	NA	NA	NA	1.9 UN	NA	5.3 U	2.5 B
Silver	50 ST	7440-22-4	ug/l	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	ug/l	23,700	462,000	250,000	159,000	150,000	130,000	78,100	15,100
Thallium	0.5 GV	7440-28-0	ug/l	NA	NA	NA	NA	4.0 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	ug/l	NA	NA	NA	NA	0.74 U	NA	2.1 B	1.9 B
Zinc	2,000 ST	7440-66-6	ug/l	NA	NA	NA	NA	8.3 B	NA	30.8	49.7
Cyanide	200 ST	0057-12-5	ug/l	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	ug/l	1,386	1,087.2	532	460	204.6	206.6	1,163	387.7

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection limit

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-011 10/24/1997 (ug/l)	MW-011 11/30/2000 (ug/l)	MW-011 1/30/2001 (ug/l)	MW-011 8/21/2002 (ug/l)	MW-011 11/20/2002 (ug/l)	MW-011 3/5/2003 (ug/l)	MW-011 6/3/2003 (ug/l)	MW-011 8/21/2003 (ug/l)
Aluminum	-	7429-90-5	60.8	12.5 B	27.7	NA	19 B	NA	NA	13.9 U
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	93.2	4.3 B	7.8	NA	26.2 B	NA	NA	38.9 B
Beryllium	3 GV	7440-41-7	0.1	0.1 U	0.1 U	NA	0.40 U	NA	NA	0.2 U
Boron	1,000 ST	7440-42-8	NA	65.8 B	94.3	NA	68.1 B	NA	NA	176
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.21 B	0.50 U	0.16 B	0.10 U	0.30 U
Calcium	-	7440-70-2	7,510	723 B	1,350	4,840 B	10,200	5,850	2,520 B	13,200
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.4 U	3.5 U	0.6 U	NA	0.80 U	NA	NA	0.70 U
Cobalt	-	7440-48-4	2.7	2.2 B	1.7 U	NA	5.7 B	NA	NA	5.8 B
Copper	200 ST	7440-50-8	0.93	2.1 B	1.7	NA	2.0 B	NA	NA	1.1 U
Iron	300 ST	7439-89-6	80.1	13.3 B	22.8	242	78.8 B	105	45.2 B	23.6 U
Lead	25 ST	7439-92-1	1	1.4 U	1.1 U	1.3 B	1.4 U	1.5 U	1.6 B	0.80 U
Magnesium	35,000 GV	7439-95-4	3,720	154 B	266	904 B	1,910 B	1,160 B	439	2,490 B
Manganese	300 ST	7439-96-5	286	1.3 B	3.9	32.4	24	16.5	7.4 B	24.4
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.10 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	5.1	1.9 U	1.4 U	NA	8.2 B	NA	NA	6.1 B
Potassium	-	7440-09-7	4,250	951 B	1,510	1,370 B	1,770 B	1,970 B	1,250 B	2,700 B
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	0.5 U	2.6	NA	1 U	NA	NA	1.0 U
Sodium	20,000 ST	7440-23-5	120,000	50,600	68,000	16,100	43,000	64,400	37,000	83,500
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	3.4 B
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7	NA	0.60 U	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	29.5	2.2 U	8.6	NA	27.6	NA	NA	3.4 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	366.1	14.6	26.7	274.4	102.8	121.5	52.6	48

NOTES:

J: Estimated due to data validation criteria.

J: Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-011 11/10/2003 (ug/l)	MW-011 2/26/2004 (ug/l)	MW-011 5/20/2004 (ug/l)	MW-011 8/19/2004 (ug/l)	MW-011 11/8/2004 (ug/l)	MW-011 2/28/2005 (ug/l)	MW-011 5/25/2005 (ug/l)	MW-011 8/24/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	21.5 B	NA	NA	99.2 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	9.2 B	NA	NA	17.3 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.2 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	229 B	NA	NA	299	NA	NA
Cadmium	5 ST	7440-43-9	0.30 U	0.20 U	0.30 U	0.30 U	0.23 U	0.35 B	0.65 U	0.65 U
Calcium	-	7440-70-2	25,100	17,300	2720 B	6,790	5,700	13,000	10,500	7,890
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.6 U	NA	NA	1.4 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	11 B	NA	NA	5.7 B	NA	NA
Copper	200 ST	7440-50-8	NA	NA	3.6 B	NA	NA	15.6 B	NA	NA
Iron	300 ST	7439-89-6	44.1 B	31.6 B	82.6 B	48.9 B	30.6 B	99.4 B	37.2 B	43.4 B
Lead	25 ST	7439-92-1	1.2 B	1.6 U	1.2 U	1.2 U	1.1 U	1.6 B	1.7 U	1.7 U
Magnesium	35,000 GV	7439-95-4	4,750 B	3,560 B	559 B	1,710 B	1,320 B	3,010 B	2,430 B	1,860 B
Manganese	300 ST	7439-96-5	71.2	70.6	16	51.6	13.6	33.3	63.2	147
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	7.4 B	NA	NA	6.4 B	NA	NA
Potassium	-	7440-09-7	3040 B	3,860	1640 B	1900 B	2180 B	2700 B	2630 B	1950 B
Selenium	10 ST	7782-49-2	NA	NA	2.1 U	NA	NA	3 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.85 B	NA	NA
Sodium	20,000 ST	7440-23-5	49,900	74,100	33,800	27,400	29,700	20,900	13,700	12,000
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	13.3 B	NA	NA	89	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	115.3	102.2	98.6	100.5	44.2	132.7	100.4	190.4

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-011 11/28/2005 (ug/l)	MW-011 2/24/2006 (ug/l)	MW-011 5/17/2006 (ug/l)	MW-011 8/8/2006 (ug/l)	MW-011 11/28/2006 (ug/l)	MW-011 2/21/2007 (ug/l)	MW-011 5/25/2007 (ug/l)	MW-011 8/15/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	33.1 B	37.5 B	104 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 U	2.0 U	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	14.7 B	13.4 B	14.0 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.55 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	269 B	304 B	237	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	0.55 B	0.16 U	0.25 B
Calcium	-	7440-70-2	7,910	7,190	7,260	13,500	13,200	13,400	13,100	12,300
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.50 U	0.50 U	0.33 U	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	7.1 B	8.9 B	5.2 B	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.2 B	10 B	U*	NA
Iron	300 ST	7439-89-6	20 B	52.0 B	24.7 B	63.8 B	21.3 B	112	102	8.5 B
Lead	25 ST	7439-92-1	1.6 B	1.3 U	1.9 U	1.9 U	1.5 U	1.9 B	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	1,870 B	1,740 B	1,580 B	2,910 B	3,100 B	3,280 B	3,160 B	3,390 B
Manganese	300 ST	7439-96-5	133	135	217	474	484	121	81.9	456.5
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	6.9 B	8.1 B	3.9 B	NA
Potassium	-	7440-09-7	2,160 B	2,730 B	1,960 B	2,980 B	2,170 B	2,840 B	2,280 B	1,960 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 B	NA
Sodium	20,000 ST	7440-23-5	15,500	18,100	17,500	10,400	12,400	13,900	12,400	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	2.9 U	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	47.7	48.3	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	153	187	231.7	537.8	505.3	233	183.9	456.5

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-011 11/9/2007 (ug/l)	MW-011 2/11/2008 (ug/l)	MW-011 5/15/2008 (ug/l)	MW-011 8/5/2008 (ug/l)	MW-011 11/3/2008 (ug/l)	MW-011 2/24/2009 (ug/l)	MW-011 8/12/2009 (ug/l)	MW-011 2/4/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	12.5 U	118 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	6.7 B	NA	8.0 B	7.9 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	62.8 BN	NA	52.2 B	47.9 B
Cadmium	5 ST	7440-43-9	0.55 B	0.32 U	0.45 B	0.27 U	0.35 U	0.35 U	0.26 U	0.34 U
Calcium	-	7440-70-2	9,220	12,200	13,600	8,380	6,510	6,160	6,620	6,500
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.41 U	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	0.60 B	1.2 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	0.76 U	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	1.5 B	NA	0.70 B	2.4 B
Iron	300 ST	7439-89-6	122	24.2 U	31.7 B	21.4 B	27.6 B	13.3 B	31.8 B	390 J*
Lead	25 ST	7439-92-1	1.5 JB	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	10.4	2.0 B
Magnesium	35,000 GV	7439-95-4	2,800	3,420 B	3,960 B	2,280 B	1,830 B	1,740 B	1,750 B	2,060 B
Manganese	300 ST	7439-96-5	178	463	343	336	148	64.8	107	112
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	14.5	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.7 B	NA	0.82 U	2.4 B
Potassium	-	7440-09-7	2,020 J	1,650 B	1,950 B	1,970 B	1,390 B	1,130 B	1,400 B	1,580 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 UN	NA	5.3 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	10,200	12,300	15,400	11,400	8,450	6,950	6,450	5,790
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	4.2 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	9.9 B	NA	10.1 B	46.8
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	300	487.2	375	357.4	175.6	78.1	138.8	502

NOTES:

J. Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-01S 10/24/1997 (ug/l)	MW-01S 11/30/2000 (ug/l)	MW-01S 1/29/2001 (ug/l)	MW-01S 8/21/2002 (ug/l)	MW-01S 11/20/2002 (ug/l)	MW-01S 3/5/2003 (ug/l)	MW-01S 6/3/2003 (ug/l)	MW-01S 8/21/2003 (ug/l)
Aluminum	-	7429-90-5	378	21 B	32.1	NA	101 B	NA	NA	30.7 B
Antimony	3 GV	7440-36-0	3.0 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.5	2.5 U	5.9	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	75.5	52.7 B	58	NA	67.4 B	NA	NA	66.9 B
Beryllium	3 GV	7440-41-7	0.2	0.1 U	0.1 U	NA	0.40 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	622	553	NA	271	NA	NA	140
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.10 U	0.50 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	93,000	53,000	63,900	65,400	82,400	87,700	81,200	92,000
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	2.7	3.5 U	1.5	NA	1.1 B	NA	NA	0.70 U
Cobalt	-	7440-48-4	2.5	2.8 B	4.8	NA	5.4 B	NA	NA	3.4 B
Copper	200 ST	7440-50-8	3.2	1.5 U	2.4	NA	3.5 B	NA	NA	3.4 B
Iron	300 ST	7439-89-6	6,710	4,360	4,870	13,360	14,000	13,100	7,870	3,040
Lead	25 ST	7439-92-1	12.7	1.4 U	6.5	2.2 B	1.4 B	1.5 U	1.9 B	0.80 U
Magnesium	35,000 GV	7439-95-4	8,940	6010	7240	7,530	8,980	10,700	9,690	9,000
Manganese	300 ST	7439-96-5	944	1,220	2,210	1,850	2,740	2,670	925	814
Mercury	0.7 ST	7439-97-6	0.12	0.1 U	0.1 U	NA	0.10 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	1.3 U	1.9 U	1.4 U	NA	1.2 B	NA	NA	4.6 B
Potassium	-	7440-09-7	10,000	16200	15700	8,380	11,000	9,900	13,600	9,910
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	5.5 N	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	0.58 B	1.6 U	NA	1 U	NA	NA	1.0 U
Sodium	20,000 ST	7440-23-5	51,400	35,400	33,700	29,400	38,100	49,600	82,800	43,500
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	3.0 B
Vanadium	-	7440-62-2	1.2	0.7 U	1.7 U	NA	0.65 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	37	2.2 U	22.4	NA	40.6	NA	NA	66.9
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	7,654	5,580	7,080	15,150	16,740	15,770	8,795	3,854

NOTES:

J. Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-01S 11/10/2003 (ug/l)	MW-01S 2/26/2004 (ug/l)	MW-01S 5/70/2004 (ug/l)	MW-01S 8/19/2004 (ug/l)	MW-01S 11/8/2004 (ug/l)	MW-01S 2/28/2005 (ug/l)	MW-01S 5/25/2005 (ug/l)	MW-01S 8/24/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	30.3 B	NA	NA	67 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	46.1 B	NA	NA	45.9 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.2 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	168 B	NA	NA	152	NA	NA
Cadmium	5 ST	7440-43-9	0.30 U	0.20 U	0.3 U	0.30 U	0.23 U	0.34 B	0.65 U	0.65 U
Calcium	-	7440-70-2	133,000	93,100	83,800	88,500	79,900	77,400	80,100	66,500
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	1.8 B	NA	NA	1.0 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	5.2 B	NA	NA	4.8 B	NA	NA
Copper	200 ST	7440-50-8	NA	NA	3.3 B	NA	NA	1.5 B	NA	NA
Iron	300 ST	7439-89-6	4,890	5,300	7,980	6,480	7,210	5,950	7,570	6,070
Lead	25 ST	7439-92-1	1.1 U	1.6 U	1.3 B	1.2 U	1.1 U	1.1 U	3.2	2.4 B
Magnesium	35,000 GV	7439-95-4	14,000	13,300	9,930	10,100	9,680	10,200	9,940	7,950
Manganese	300 ST	7439-96-5	969	1,900	2,280	2,400	2,630	1,970	2,470	1,330
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	2.2 B	NA	NA	1.8 B	NA	NA
Potassium	-	7440-09-7	16600	8,580	8,960	10,700	11,400	10,100	10,800	9,530
Selenium	10 ST	7782-49-2	NA	NA	2.6 B	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	90,400	62,800	45,700	47,200	64,700	58,500	73,400	60,600
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	40.7	NA	NA	72	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	5,859	7,200	10,260	8,880	9,840	7,920	10,040	7,400

NOTES:

J: Estimated due to data validation criteria.

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-01S 11/28/2005 (ug/l)	MW-01S 2/24/2006 (ug/l)	MW-01S 5/17/2006 (ug/l)	MW-01S 8/8/2006 (ug/l)	MW-01S 11/28/2006 (ug/l)	MW-01S 2/21/2007 (ug/l)	MW-01S 5/25/2007 (ug/l)	MW-01S 8/15/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	43.7 B	19.2 B	188 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 U	4.6 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	69.7 B	54.5 B	50.7 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.48 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	182 B	196 B	141	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	0.62 B	0.16 U	0.26 B
Calcium	-	7440-70-2	58,500	98,000	91,700	73,000	100,000	99,800	78,900	68,300
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.50 U	0.50 U	0.88 B	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	5.6 B	2.6 B	5.3 B	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	4.2 B	4.4 B	U*	NA
Iron	300 ST	7439-89-6	4,210	22,100	21,900	14,300	17,000	10,500	12,300	9,400
Lead	25 ST	7439-92-1	3.5	1.3 U	4.6	1.9 U	1.5 U	1.5 U	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	6,370	17,500	12,300	11,100	17,000	19,800	12,900	9,480
Manganese	300 ST	7439-96-5	1,620	2,600	2,290	1,470	2,060	1,150	1,270	896
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.10 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	1.8 U	0.78 U	NA
Potassium	-	7440-09-7	9,250	12,500	13,800	9,630	15,700	13,800	12,800	14,900
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.47 B	0.65 B	NA
Sodium	20,000 ST	7440-23-5	41,600	67,700	79,600	63,000	75,700	74,900	81,400	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	2.9 U	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	50.3	31.4	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	25.7	NA	NA
Iron + Manganese	500 ST*	-	5,830	24,700	23,190	15,770	19,060	11,650	13,570	10,296

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-01S 11/9/2007 (ug/l)	MW-01S 2/11/2008 (ug/l)	MW-01S 5/15/2008 (ug/l)	MW-01S 8/5/2008 (ug/l)	MW-01S 11/3/2008 (ug/l)	MW-01S 2/24/2009 (ug/l)	MW-01S 8/14/2009 (ug/l)	MW-01S 2/4/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	63.5 B	NA	197 B	44.6 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	3.5 B	NA	11.2	3.2 B
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	45.7 B	NA	103 B	48.6 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	125 BN	NA	76.5 B	107
Cadmium	5 ST	7440-43-9	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U	0.35 U	0.50 B	0.34 U
Calcium	-	7440-70-2	63,100	71,000	60,800	79,700	62,900	58,000	64,100	55,300
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.49 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	0.80 B	1.0 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	2.0 B	NA	2.7 B	1.6 B
Copper	200 ST	7440-50-8	NA	NA	NA	NA	3.3 B	NA	2.1 B	2.4 B
Iron	300 ST	7439-89-6	5,240	2,370	7,210	8,300	6,500	6,150	24,700	4,040 J*
Lead	25 ST	7439-92-1	1.4 UJ	2.1 B	2.3 U	2.5 B	1.3 U	1.3 U	11.9	2.1 B
Magnesium	35,000 GV	7439-95-4	9,110	11,000	8,960	11,700	9,990	8,690	8,020	7,650
Manganese	300 ST	7439-96-5	735	465	950	1080	799	1,030	1,190	591
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	1.4 U
Potassium	-	7440-09-7	13,900 J	11,800	12,600	14,700	15,900	12,400	13,100	13,500
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 UN	NA	5.3 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	59,800	54,300	57,400	58,100	56,200	51,000	66,100	52,800
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	4.1 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.90 B	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	14.8 B	NA	78.3	30.6
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	5,975	2,835	8,160	9,380	7,299	7,180	25,890	4,631

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST Standard

GV Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-02D 10/27/1997 (ug/l)	MW-02D 12/1/2000 (ug/l)	MW-02D 1/30/2001 (ug/l)	MW-02D 8/21/2002 (ug/l)	MW-02D 11/20/2002 (ug/l)	MW-02D 3/5/2003 (ug/l)	MW-02D 6/3/2003 (ug/l)	MW-02D 8/22/2003 (ug/l)
Aluminum	-	7429-90-5	33.5	15.3 B	16	NA	21.9 B	NA	NA	22.3 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	6.9	5.2 B	5	NA	7.4 B	NA	NA	6.0 B
Beryllium	3 GV	7440-41-7	0.1	0.1 U	0.1 U	NA	0.40 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	5.1 B	32.9	NA	18 B	NA	NA	22.4 B
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.17 B	0.5 U	0.29 B	0.10 U	0.30 U
Calcium	-	7440-70-2	4,750	6,070	5,720	6,040	8,290	8,530	8,370	7,610
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.4 U	3.5 U	0.6 U	NA	1.6 B	NA	NA	1.2 B
Cobalt	-	7440-48-4	1.1 U	0.9 U	1.7 U	NA	1 U	NA	NA	2.1 U
Copper	200 ST	7440-50-8	0.7 U	1.5 U	1.5 U	NA	8.7 B	NA	NA	1.4 B
Iron	300 ST	7439-89-6	33.2	4.2 B	12.3	139	89.1 B	119	52.6 B	96.2
Lead	25 ST	7439-92-1	1 U	1.4 U	1.1 U	0.8 U	1.4 U	1.5 U	1.5 U	0.80 U
Magnesium	35,000 GV	7439-95-4	2,220	2,840 B	2,680	2,600 B	3,530 B	3,640 B	3,610 B	3,250 B
Manganese	300 ST	7439-96-5	54.8	1.6 B	1.1 U	30.6	11 B	7.3 B	3.4 B	5.9 B
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	1.3 U	1.9 U	1.4 U	NA	1.5 B	NA	NA	1.5 U
Potassium	-	7440-09-7	636	740 B	806	741 B	710 B	768 B	895 B	736 B
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	0.5 U	1.6 U	NA	1 U	NA	NA	1.0 U
Sodium	20,000 ST	7440-23-5	8,120	8,460	7,560	6,780	8,170	8,210	8,650	7,640
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	3.0 B
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U	NA	0.6 U	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	27.5	3.6 B	5.3	NA	57.8	NA	NA	9.9 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	88	5.8	12.3	169.6	100.1	126.3	56	102.1

NOTES:

J* Estimated due to data validation criteria.

 Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-02D 11/11/2003 (ug/l)	MW-02D 2/27/2004 (ug/l)	MW-02D 5/20/2004 (ug/l)	MW-02D 8/20/2004 (ug/l)	MW-02D 11/18/2004 (ug/l)	MW-02D 2/28/2005 (ug/l)	MW-02D 5/26/2005 (ug/l)	MW-02D 8/24/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	20.7 B	NA	NA	53.8 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	6.9 B	NA	NA	6.7 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.2 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	16.7 B	NA	NA	21.2 B	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.20 U	0.3 U	0.30 U	0.23 U	0.23 U	0.65 U	0.65 U
Calcium	-	7440-70-2	7,640	7,800	7,980	7,810	8,590	8,360	8,570	9,260
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	1.5 B	NA	NA	1.2 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	1.5 U	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	4.2 B	NA	NA	1.2 B	NA	NA
Iron	300 ST	7439-89-6	62.4 B	26.8 B	103	56.8 B	46.8 B	64.4 B	48.4 B	98.4 B
Lead	25 ST	7439-92-1	1.1 U	1.6 U	1.2 U	1.2 U	1.1 U	1.1 U	1.7 U	1.7 U
Magnesium	35,000 GV	7439-95-4	3,340 B	3,420 B	3,260 B	3,250 B	3,620 B	3,530 B	3,580 B	3,960 B
Manganese	300 ST	7439-96-5	3.7 B	1.2 B	14.9 B	2.6 B	2.8 B	3.1 B	3.4 B	5.6 B
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	1.6 U	NA	NA	1.2 U	NA	NA
Potassium	-	7440-09-7	697 B	674 B	883 B	730 B	877 B	848 B	734 B	741 B
Selenium	10 ST	7782-49-2	NA	NA	2.1 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	7,590	8,450	7,760	8,290	8,840	8,540	7,380	9,170
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	15.2 B	NA	NA	72.3	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	66.1	28	117.9	59.4	49.6	67.5	51.8	104

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST Standard

GV: Guidance value

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-02D 11/29/2005 (ug/l)	MW-02D 2/28/2006 (ug/l)	MW-02D 5/18/2006 (ug/l)	MW-02D 8/10/2006 (ug/l)	MW-02D 11/30/2006 (ug/l)	MW-02D 2/22/2007 (ug/l)	MW-02D 5/25/2007 (ug/l)	MW-02D 8/15/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	47.0 B	34.0 B	103 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 U	2.0 U	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	6.4 U	6.4 U	4.6 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.50 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	16.4 B	24.0 B	20.3 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.62 B	0.28 U	0.28 U	0.16 U	0.17 B
Calcium	-	7440-70-2	8,190	8,310	8,180	7,740	6,840	6,260	5,500	6,320
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	1.9 B	0.72 B	0.56 B	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 U	0.40 U	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	3.8 B	9.7 B	0.44 U	NA
Iron	300 ST	7439-89-6	40.7 B	95.8 B	155	60.1 B	129	70.1 B	43.0 B	8.9 B
Lead	25 ST	7439-92-1	2.8 B	2.3 B	2.1 B	1.9 U	1.5 U	1.5 U	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	3,560 B	3,840 B	3,430 B	3,330 B	3,160 B	3,120 B	2,640 B	2,950 B
Manganese	300 ST	7439-96-5	2.4 B	4.4 B	12 B	1.7 B	4.8 B	3.6 B	2.1 B	2.1 B
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	1.8 U	0.78 U	NA
Potassium	-	7440-09-7	676 B	929 B	699 B	1490 B	791 B	889 B	711 B	754 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.87 B	NA
Sodium	20,000 ST	7440-23-5	7,570	7,790	7,590	7,750	6,690	6,310	5,030	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	2.9 U	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	66.2	U*	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	43.1	100.2	167	61.8	133.8	73.7	45.1	11.0

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-02D 11/13/2007 (ug/l)	MW-02D 2/12/2008 (ug/l)	MW-02D 5/19/2008 (ug/l)	MW-02D 8/4/2008 (ug/l)	MW-02D 11/3/2008 (ug/l)	MW-02D 2/24/2009 (ug/l)	MW-02D 8/14/2009 (ug/l)	MW-02D 2/8/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	181 B	132 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	3.3 B	NA	225	4.2 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.20 B	0.30 B
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	13.5 BN	NA	196	18.8 B
Cadmium	5 ST	7440-43-9	0.32 B	0.60 B	0.27 U	0.27 U	0.35 U	0.35 U	1.1 B	0.34 U
Calcium	-	7440-70-2	5,460	5,540	4,990 B	4,830 B	4,620 B	4,600 B	95,700	4,150 B
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	1.2 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	1.4 B	2.2 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	1.0 B	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	1.8 B	NA	1.4 B	1.8 B
Iron	300 ST	7439-89-6	446	50.4	23.8 B	90.2 B	19.7 B	30.7 B	26,900	215
Lead	25 ST	7439-92-1	2.2 JB	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	17.5	2.7 B
Magnesium	35,000 GV	7439-95-4	2,630 B	2,570 B	2,380 B	2,330 B	2,290 B	2,230 B	14,000	2,130 B
Manganese	300 ST	7439-96-5	11.6 B	1.8 B	1.7 B	4.2 B	1.0 B	1.2 B	4,920	5.2 B
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	1.6 B
Potassium	-	7440-09-7	997 JB	642 B	637 B	874 B	654 B	622 B	13,200	759 J*
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 UN	NA	4.6 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	4,240 B	4,950 B	4,960 B	4,630 B	5,010	4,500 B	29,300	4,890 B
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	1.4U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	10.5 B	NA	27.5	21.9
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	457.6	52.2	25.5	94.4	20.7	31.9	31,820	220.2

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-021 10/27/1997 (ug/l)	MW-021 12/1/2000 (ug/l)	MW-021 1/30/2001 (ug/l)	MW-021 8/21/2002 (ug/l)	MW-021 11/20/2002 (ug/l)	MW-021 3/7/2003 (ug/l)	MW-021 6/3/2003 (ug/l)	MW-021 8/21/2003 (ug/l)
Aluminum	-	7429-90-5	80.2	26.4 B	11.8 U	NA	70.4 B	NA	NA	48.0 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	47.9	39.9 B	36.9	NA	30.8 B	NA	NA	35.5 B
Beryllium	3 GV	7440-41-7	0.1	0.1 U	0.1 U	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	126	97.2	NA	105	NA	NA	103
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.43 B	0.5 U	0.19 B	0.11 B	0.30 U
Calcium	-	7440-70-2	4,990	10,700	10,500	7,090	6,060	11,600	13,200	9,450
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.7	3.5 U	0.6 U	NA	0.8 U	NA	NA	0.70 U
Cobalt	-	7440-48-4	1.1	0.9 U	1.7 U	NA	1 U	NA	NA	2.1 U
Copper	200 ST	7440-50-8	3.6	1.5 U	1.5 U	NA	5.9 B	NA	NA	1.4 B
Iron	300 ST	7439-89-6	249	6.9 B	5.4	207	173	44.3 B	142	99.8 B
Lead	25 ST	7439-92-1	3.5	1.4 U	1.1 U	1.2 B	1.7 B	1.5 U	1.5 U	0.80 U
Magnesium	35,000 GV	7439-95-4	685	2,670 B	2,600	1,900 B	1,780	3,240 B	3,320 B	2,680 B
Manganese	300 ST	7439-96-5	40.9	417	406	181	504	503	328	295
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	1.3 U	1.9 U	1.4 U	NA	1.1	NA	NA	1.5 U
Potassium	-	7440-09-7	3,100	1,630 B	1,680	1,740 B	3,600	3,070 B	4,130 B	1,480 B
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	1 B	1.6 U	NA	1 U	NA	NA	1.0 U
Sodium	20,000 ST	7440-23-5	15,300	8,700	7,380	7,370	7,100	12,300	8,740	6,460
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U	NA	0.60 U	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	37	2.2 U	3.6 U	NA	36	NA	NA	9.8 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	289.9	423.9	411.4	388	677	547.3	470	394.8

NOTES:

J: Estimated due to data validation criteria

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-021 11/11/2003 (ug/l)	MW-021 2/26/2004 (ug/l)	MW-021 5/20/2004 (ug/l)	MW-021 8/20/2004 (ug/l)	MW-021 11/8/2004 (ug/l)	MW-021 2/28/2005 (ug/l)	MW-021 5/26/2005 (ug/l)	MW-021 8/24/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	133 B	NA	NA	184 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	31.2 B	NA	NA	39.5 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.2 U	NA	NA	0.33 B	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	39.5 B	NA	NA	58.9 B	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.41 B	0.3 U	0.36 B	0.43 B	0.53 B	0.65 U	0.65 U
Calcium	-	7440-70-2	9,840	11,200	17,700	10,900	11,900	10,200	9,950	9,410
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	1.7 B	NA	NA	1.5 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	1.5 U	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	8.3 B	NA	NA	14.3 B	NA	NA
Iron	300 ST	7439-89-6	121	94.5 B	177	93.2 B	109	198	67.2 B	93.9 B
Lead	25 ST	7439-92-1	1.9 B	1.6 U	3.2	1.9 B	1.1 U	2.4 B	2.3 B	1.7 U
Magnesium	35,000 GV	7439-95-4	2,310 B	2,400	2,980 B	1,910 B	1,840 B	1,910 B	1,940 B	1,900 B
Manganese	300 ST	7439-96-5	390	360	266	320	249	239	329	310
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	2.2 B	NA	NA	1.2 U	NA	NA
Potassium	-	7440-09-7	1,670 B	1,760 B	3,100 B	1,780 B	2,390 B	2,010 B	1,570 B	1,340 B
Selenium	10 ST	7782-49-2	NA	NA	2.1 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.50 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	6,510	9,210	6,970	8,040	7,660	9,060	8,630	9,060
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	36.4	NA	NA	110	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	511	454.5	443	413.2	358	437	396.2	403.9

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed.

B Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-021 11/29/2005 (ug/l)	MW-021 2/28/2006 (ug/l)	MW-021 5/18/2006 (ug/l)	MW-021 8/10/2006 (ug/l)	MW-021 11/30/2006 (ug/l)	MW-021 2/72/2007 (ug/l)	MW-021 5/25/2007 (ug/l)	MW-021 8/14/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	54.6 B	48.0 B	130 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 U	2.0 U	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	46.3 B	56.4 B	42.2 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.58 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	112 B	117 B	95.4 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	0.38 B	0.16 U	0.24 B
Calcium	-	7440-70-2	11,200	12,100	16,800	20,000	24,700	21,600	19,000	24,600
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	2.2 B	1.2 B	0.33 U	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 U	0.40 U	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	6.8 B	16.7 B	U*	NA
Iron	300 ST	7439-89-6	30.8 B	27.1 B	35.5 B	3.7 U	94.2 B	186	87.5 B	6.7 B
Lead	25 ST	7439-92-1	1.6 B	1.6 B	1.9 B	1.9 U	1.5 U	1.6 B	1.1 U	1.1 U
Magnesium	35,000 GV	7439-93-4	2,160 B	2,520 B	2,810 B	3,060 B	3,480 B	3,730 B	2,880 B	2,850 B
Manganese	300 ST	7439-96-5	335	433	396	251	210	330	110	83
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	1.8 U	0.78 U	NA
Potassium	-	7440-09-7	2,560 B	3,600 B	2,410 B	2,520 B	2,110 B	2,360 B	1,700 B	2,500 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.8 B	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	9,820	12,500	23,200	15,000	17,000	18,700	15,200	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	3.4 B	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	58.8	U*	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	365.8	460.1	431.5	251	304.2	516	197.5	89.7

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-021 11/13/2007 (ug/l)	MW-021 2/12/2008 (ug/l)	MW-021 5/19/2008 (ug/l)	MW-021 8/4/2008 (ug/l)	MW-021 11/8/2008 (ug/l)	MW-021 2/24/2009 (ug/l)	MW-021 8/14/2009 (ug/l)	MW-021 2/8/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	81.1 B	39.3 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	32.3 B	NA	38.2 B	37.8 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	106 BN	NA	53.3 B	51.6 B
Cadmium	5 ST	7440-43-9	0.35 B	0.32 U	0.27 U	0.27 U	0.35 U	0.35 U	0.26 U	0.34 U
Calcium	-	7440-70-2	18,200	18,600	16,300	14,000	13,500	13,800	15,500	14,700
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.41 U	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	1.9 B	0.60 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	0.76 U	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.0 B	NA	1.2 B	2.1 B
Iron	300 ST	7439-89-6	183	24.2 U	20.3 B	10.0 B	13.7 B	26.0 B	42.1 B	63.7 B
Lead	25 ST	7439-92-1	1.4 UJ	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	4.1	3.3
Magnesium	35,000 GV	7439-95-4	2,230 B	1,560 B	1,390 B	1,150 B	1,080 B	1,260 B	1,250 B	1,550 B
Manganese	300 ST	7439-96-5	332	20.3	23.3	20.6	26.9	39.6	38.4	28.2
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	1.4 U
Potassium	-	7440-09-7	3,430 JB	1,590 B	1,670 B	3,900 B	4,610 B	3,600 B	3,940 B	3,990 J*
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 UN	NA	4.6 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	22,400	16,000	15,000	11,900	11,500	10,800	10,600	10,400
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	3.9 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	5.6 B	NA	6.8 B	12.6 B
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	515	44.5	43.6	30.6	40.6	65.6	80.5	91.9

NOTES:

J. Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST Standard

GV Guidance value

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-02S 10/27/1997 (ug/l)	MW-02S 11/30/2000 (ug/l)	MW-02S 1/31/2001 (ug/l)	MW-02S 8/21/2002 (ug/l)	MW-02S 11/20/2002 (ug/l)	MW-02S 3/5/2003 (ug/l)	MW-02S 6/3/2003 (ug/l)	MW-02S 8/25/2003 (ug/l)
Aluminum	-	7429-90-5	146	15.8 B	11.8 U					
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U					
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U					
Barium	1,000 ST	7440-39-3	26.3	34.1 B	31.9					
Beryllium	3 GV	7440-41-7	0.77	0.1 U	0.14					
Boron	1,000 ST	7440-42-8	NA	59.7 B	87.8					
Cadmium	5 ST	7440-43-9	0.57	0.4 U	0.2 U					
Calcium	-	7440-70-2	27,000	30,300	33,100					
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	N	N	N	N	N
Chromium Total	50 ST	7440-47-3	1.1	3.5 U	0.6 U	O	O	O	O	O
Cobalt	-	7440-48-4	1.5	0.9 U	1.7 U	T	T	T	T	T
Copper	200 ST	7440-50-8	4	2.6 B	1.5 U					
Iron	300 ST	7439-89-6	312	18.7 B	13.8	S	S	S	S	S
Lead	25 ST	7439-92-1	2.1	1.4 U	1.1 U	A	A	A	A	A
Magnesium	35,000 GV	7439-95-4	2,890	2360 B	2750	M	M	M	M	M
Manganese	300 ST	7439-96-5	5.6	61.1	68.4	P	P	P	P	P
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	L	L	L	L	L
Nickel	100 ST	7440-02-0	1.3	1.9 U	1.4 U	E	E	E	E	E
Potassium	-	7440-09-7	4,660	7,850	7,600	D	D	D	D	D
Selenium	10 ST	7782-49-2	2.8 U	4 B	1.5 U					
Silver	50 ST	7440-22-4	0.9 U	0.93 B	1.6 U					
Sodium	20,000 ST	7440-23-5	18,900	12,900	13,100					
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 B	2.8 U					
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U					
Zinc	2,000 ST	7440-66-6	20.8	2.8 B	3.6 U					
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U					
Iron + Manganese	500 ST	-	317.6	79.8	82.2					

NOTES:

J- Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed.

B Concentration is above instrument detection limit but below contract required detection

U*- Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-02S 11/11/2003 (ug/l)	MW-02S 2/26/2004 (ug/l)	MW-02S 5/20/2004 (ug/l)	MW-02S 8/20/2004 (ug/l)	MW-02S 11/10/2004 (ug/l)	MW-02S 2/28/2005 (ug/l)	MW-02S 5/26/2005 (ug/l)	MW-02S 8/24/2005 (ug/l)
Aluminum	-	7429-90-5								
Antimony	3 GV	7440-36-0								
Arsenic	25 ST	7440-38-2								
Barium	1,000 ST	7440-39-3								
Beryllium	3 GV	7440-41-7								
Boron	1,000 ST	7440-42-8								
Cadmium	5 ST	7440-43-9								
Calcium	-	7440-70-2								W
Chromium Hexavalent	50 ST	18540-29-9	N	N	N	N	N	N	N	E
Chromium Total	50 ST	7440-47-3	O	O	O	O	O	O	O	L
Cobalt	-	7440-48-4	T	T	T	T	T	T	T	L
Copper	200 ST	7440-50-8								
Iron	300 ST	7439-89-6	S	S	S	S	S	S	S	A
Lead	25 ST	7439-92-1	A	A	A	A	A	A	A	B
Magnesium	35,000 GV	7439-95-4	M	M	M	M	M	M	M	A
Manganese	300 ST	7439-96-5	P	P	P	P	P	P	P	N
Mercury	0.7 ST	7439-97-6	L	L	L	L	L	L	L	D
Nickel	100 ST	7440-02-0	E	E	E	E	E	E	E	O
Potassium	-	7440-09-7	D	D	D	D	D	D	D	N
Selenium	10 ST	7782-49-2								E
Silver	50 ST	7440-22-4								D
Sodium	20,000 ST	7440-23-5								
Thallium	0.5 GV	7440-28-0								
Vanadium	-	7440-62-2								
Zinc	2,000 ST	7440-66-6								
Cyanide	200 ST	0057-12-5								
Iron + Manganese	500 ST*	-								

NOTES:

J. Estimated due to data validation criteria

U. Analyzed for but not detected, value shown is instrument detection limit

NA. Not analyzed

B. Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST. Standard

GV. Guidance value

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-02S 11/30/2005 (ug/l)	MW-02S 3/1/2006 (ug/l)	MW-02S 5/18/2006 (ug/l)	MW-02S 8/9/2006 (ug/l)	MW-02S 11/29/2006 (ug/l)	MW-02S 2/22/2007 (ug/l)	MW-02S 6/1/2007 (ug/l)	MW-02S 8/14/2007 (ug/l)
Aluminum	-	7429-90-5								
Antimony	3 GV	7440-36-0								
Arsenic	25 ST	7440-38-2								
Barium	1,000 ST	7440-39-3								
Beryllium	3 GV	7440-41-7								
Boron	1,000 ST	7440-42-8								
Cadmium	5 ST	7440-43-9								
Calcium	-	7440-70-2	W	W	W	W	W	W	W	W
Chromium Hexavalent	50 ST	18540-29-9	E	E	E	E	E	E	E	E
Chromium Total	50 ST	7440-47-3	L	L	L	L	L	L	L	L
Cobalt	-	7440-48-4	L	L	L	L	L	L	L	L
Copper	200 ST	7440-50-8								
Iron	300 ST	7439-89-6	A	A	A	A	A	A	A	A
Lead	25 ST	7439-92-1	B	B	B	B	B	B	B	B
Magnesium	35,000 GV	7439-95-4	A	A	A	A	A	A	A	A
Manganese	300 ST	7439-96-5	N	N	N	N	N	N	N	N
Mercury	0.7 ST	7439-97-6	D	D	D	D	D	D	D	D
Nickel	100 ST	7440-02-0	O	O	O	O	O	O	O	O
Potassium	-	7440-09-7	N	N	N	N	N	N	N	N
Selenium	10 ST	7782-49-2	E	E	E	E	E	E	E	E
Silver	50 ST	7440-22-4	D	D	D	D	D	D	D	D
Sodium	20,000 ST	7440-23-5								
Thallium	0.5 GV	7440-28-0								
Vanadium	-	7440-62-2								
Zinc	2,000 ST	7440-66-6								
Cyanide	200 ST	0057-12-5								
Iron + Manganese	500 ST*	-								

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-02S 11/14/2007 (ug/l)	MW-02S 2/12/2008 (ug/l)	MW-02S 5/19/2008 (ug/l)	MW-02S 8/4/2008 (ug/l)	MW-02S 11/3/2008 (ug/l)	MW-02S 2/24/2009 (ug/l)	MW-02S 8/14/2009 (ug/l)	MW-02S (ug/l)
Aluminum	-	7429-90-5								
Antimony	3 GV	7440-36-0								
Arsenic	25 ST	7440-38-2								
Barium	1,000 ST	7440-39-3								
Beryllium	3 GV	7440-41-7								
Boron	1,000 ST	7440-42-8								
Cadmium	5 ST	7440-43-9								
Calcium	-	7440-70-2	W	W	W	W	W	W	W	W
Chromium Hexavalent	50 ST	18540-29-9	E	E	E	E	E	E	E	E
Chromium Total	50 ST	7440-47-3	L	L	L	L	L	L	L	L
Cobalt	-	7440-48-4	L	L	L	L	L	L	L	L
Copper	200 ST	7440-50-8								
Iron	300 ST	7439-89-6	A	A	A	A	A	A	A	A
Lead	25 ST	7439-92-1	B	B	B	B	B	B	B	B
Magnesium	35,000 GV	7439-95-4	A	A	A	A	A	A	A	A
Manganese	300 ST	7439-96-5	N	N	N	N	N	N	N	N
Mercury	0.7 ST	7439-97-6	D	D	D	D	D	D	D	D
Nickel	100 ST	7440-02-0	O	O	O	O	O	O	O	O
Potassium	-	7440-09-7	N	N	N	N	N	N	N	N
Selenium	10 ST	7782-49-2	E	E	E	E	E	E	E	E
Silver	50 ST	7440-22-4	D	D	D	D	D	D	D	D
Sodium	20,000 ST	7440-23-5								
Thallium	0.5 GV	7440-28-0								
Vanadium	-	7440-62-2								
Zinc	2,000 ST	7440-66-6								
Cyanide	200 ST	0057-12-5								
Iron + Manganese	500 ST*	-								

NOTES:

- J Estimated due to data validation criteria
 U Analyzed for but not detected, value shown is instrument detection limit
 NA Not analyzed
 B Concentration is above instrument detection limit but below contract required detection
 U* Result qualified as non-detected based on validation criteria

ST: Standard
 GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-03S 10/30/1997 (ug/l)	MW-03S 12/6/2000 (ug/l)	MW-03S 2/2/2001 (ug/l)	MW-03S 8/22/2002 (ug/l)	MW-03S 11/22/2002 (ug/l)	MW-03S 3/7/2003 (ug/l)	MW-03S 6/3/2003 (ug/l)	MW-03S 8/25/2003 (ug/l)
Aluminum	-	7429-90-5	1,080	16.5 B	53.7	NA	803	NA	NA	46.0 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.4 B	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	3.2	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	136	125 B	125	NA	176 B	NA	NA	158 B
Beryllium	3 GV	7440-41-7	0.1 U	0.1 U	0.24	NA	0.80 B	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	128	153	NA	139	NA	NA	222
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.22	0.13 B	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	50,800	51,200	57,700	67,400	92,400	112,000	84,900	91,600
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	3.1	3.5 U	0.6	NA	2.9 B	NA	NA	1.2 B
Cobalt	-	7440-48-4	1.1	0.9 U	1.7 U	NA	13.1 B	NA	NA	2.1 U
Copper	200 ST	7440-50-8	3.3	2.6 B	1.5 U	NA	11.5 B	NA	NA	5.2 B
Iron	300 ST	7439-89-6	12,700	10,200	7,390	30,600	80,600	85,800	21,100	16,800
Lead	25 ST	7439-92-1	1.4	1.4 U	1.1 U	0.8 U	2.1 B	1.5 U	1.8 B	0.84 B
Magnesium	35,000 GV	7439-95-4	7,970	7,620	8,320	9,840	16,000	21,700	14,100	14,600
Manganese	300 ST	7439-96-5	4,270	5,840	5,930	8,430	11,500	8,190	2,930	3,770
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	2.6	1.9 U	1.4 U	NA	23.4 B	NA	NA	2.8 B
Potassium	-	7440-09-7	7,870	8310	9590	8,680	7,850	12,200	19,300	14,100
Selenium	10 ST	7782-49-2	2.8 U	2.8 B	2 N	NA	6	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	1.7 B	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	40,400	20,500	21,500	27,100	25,200	22,900	17,600	22,600
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	3.7	0.7 U	1.7 U	NA	2.9 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	34	3.5 B	3.6 U	NA	799	NA	NA	57.5
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	19,970	16,040	13,320	39,030	92,100	93,990	24,030	20,570

NOTES:

J- Estimated due to data validation criteria

J- Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-03S 11/13/2003 (ug/l)	MW-03S 3/2/2004 (ug/l)	MW-03S 5/24/2004 (ug/l)	MW-03S 8/23/2004 (ug/l)	MW-03S 11/10/2004 (ug/l)	MW-03S 3/2/2005 (ug/l)	MW-03S 5/31/2005 (ug/l)	MW-03S 8/26/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	57.5 B	NA	NA	121 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	1.6 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	5.1 B	NA	NA	4.6 B	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	147 B	NA	NA	192 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.1 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	171 B	NA	NA	161	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.20 U	0.92 B	0.30 U	0.51 B	1.3 B	0.37 U	0.65 U
Calcium	-	7440-70-2	76,200	66,200	67,100	69,300	72,800	71,000	82,600	74,800
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.9 B	NA	NA	0.63 U	NA	NA
Cobalt	-	7440-48-4	NA	NA	0.9 U	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	2.1 B	NA	NA	2.1 B	NA	NA
Iron	300 ST	7439-89-6	34,900	28,300	27,400	30,400	30,300	34,000	27,600	48,900
Lead	25 ST	7439-92-1	1.1 U	0.70 U	0.7 U	1.2 U	1.1 U	1.1 U	1.2 U	3.9
Magnesium	35,000 GV	7439-95-4	11,800	9,800	10,100	9,850	10,400	10,400	13,000	10,000
Manganese	300 ST	7439-96-5	5,500	4,860	4,630	5,010	5,750	6,100	6,090	1,310
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	1.5 B	NA	NA	1.2 U	NA	NA
Potassium	-	7440-09-7	15,900	12,900	10,800	12,000	12,400	13,200	13,600	16,000
Selenium	10 ST	7782-49-2	NA	NA	1.8 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	30,000	27,400	20,900	29,300	38,900	39,600	35,900	22,800
Thallium	0.5 GV	7440-28-0	NA	NA	1.9 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	20.7 B	NA	NA	72.2	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	40,400	33,160	32,030	35,410	36,050	40,100	33,690	50,210

NOTES:

J. Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected. value shown is instrument detection limit

NA Not analyzed.

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-03S 11/30/2005 (ug/l)	MW-03S 3/1/2006 (ug/l)	MW-03S 5/18/2006 (ug/l)	MW-03S 8/9/2006 (ug/l)	MW-03S 11/29/2006 (ug/l)	MW-03S 2/22/2007 (ug/l)	MW-03S 6/1/2007 (ug/l)	MW-03S 8/14/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	56.5 B	367	63.6 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	2.2 B	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 U	6.3 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	230	250	265	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.30 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	193 B	201 B	231 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	0.92 B	0.27 B	0.16 U
Calcium	-	7440-70-2	124,000	115,000	93,400	97,500	85,200	82,400	91,900	76,000
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.50 U	1.7 B	0.33 U	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 U	0.40 U	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.9 B	4.3 B	0.44 U	NA
Iron	300 ST	7439-89-6	26,700	20,800	27,700	31,200	27,800	28,700	29,900	25,200
Lead	25 ST	7439-92-1	1.6 U	1.3 U	2.7 B	1.9 U	1.5 U	1.9 B	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	18,200	18,900	13,700	14,300	13,300	13,600	14,200	11,600
Manganese	300 ST	7439-96-5	5,050	4,960	5,630	5,490	5,750	5,510	5,750	5,340
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	2.0 B	3.2 B	4.0 B	NA
Potassium	-	7440-09-7	17,700	22,500	17,500	18,500	16,500	18,600	17,700	14,900
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	2.1 B	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	29,000	42,300	34,300	33,300	35,900	36,700	34,400	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	5.5 B	3.7 B	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.6 B	2.3 B	2.0 B	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	71.1	U*	4.8 B	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	31,750	25,760	33,330	36,690	33,550	34,310	35,650	30,540

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-03S 11/14/2007 (ug/l)	MW-03S 2/1/2008 (ug/l)	MW-03S 5/15/2008 (ug/l)	MW-03S 8/5/2008 (ug/l)	MW-03S 11/5/2008 (ug/l)	MW-03S 2/25/2009 (ug/l)	MW-03S 8/14/2009 (ug/l)	MW-03S 2/5/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	183 B	277
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 B	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	166 B	NA	221	251
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	134 B	NA	183	160
Cadmium	5 ST	7440-43-9	0.32 U	1.4 B	0.41 B	0.27 U	0.35 U	0.35 U	0.80 B	0.34 U
Calcium	-	7440-70-2	73,600 J	67,300	76,100	69,500	66,200	73,600	93,600	75,700
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	1.3 B	NA	0.80 B	1.5 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	1.4 B	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.5 B	NA	2.0 B	0.83 U
Iron	300 ST	7439-89-6	24,600	17,200	25,200	21,500	18,500	24,300	26,600	25,400 J*
Lead	25 ST	7439-92-1	1.4 U	1.4 U	2.3 B	2.3 U	1.3 U	1.3 U	17.9	2.4 B
Magnesium	35,000 GV	7439-95-4	11,200 J	10,400	11,900	11,400	10,300	11,100	13,800	11,800
Manganese	300 ST	7439-96-5	5,920 J	5,110	5,050	4,530	5,190	5,900	4,780	5,420
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	1.4
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	2.1 B	NA	0.82 U	2.4 B
Potassium	-	7440-09-7	12,500	10,700	12,400	13,300	12,400	12,200	12,900	13,900
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	4.6 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.85 B	NA	0.33 B	0.83 U
Sodium	20,000 ST	7440-23-5	29,100 J	27,200	28,900	27,600	25,200	27,800	28,400	36,400
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.9 U	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.2 B	NA	0.77 U	3.4 B
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	1.5 U	NA	30.4	39.3
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	30,520	22,310	30,250	26,030	23,690	29,300	31,380	30,820

NOTES:

J: Estimated due to data validation criteria

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-04D 10/28/1997 (ug/l)	MW-04D 12/6/2000 (ug/l)	MW-04D 2/1/2001 (ug/l)	MW-04D 8/23/2002 (ug/l)	MW-04D 11/21/2002 (ug/l)	MW-04D 3/7/2003 (ug/l)	MW-04D 6/3/2003 (ug/l)	MW-04D 8/25/2003 (ug/l)
Aluminum	-	7429-90-5	52.9	17.7 B	15.7	NA	29.4 B	NA	NA	27.3 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	7.6	11.9	14.4	NA	7.2 B	NA	NA	13.7
Barium	1,000 ST	7440-39-3	186	249	224	NA	90.8 B	NA	NA	108 B
Beryllium	3 GV	7440-41-7	0.1	0.1 U	0.16	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	291	326	NA	170	NA	NA	120
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.37	0.1 B	0.5 U	0.1 U	0.10 U	0.30 U
Calcium	-	7440-70-2	56,100	60,000	59,100	30,800	24,700	24,000	27,500	30,900
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.4 U	3.5 U	0.6 U	NA	1.3 B	NA	NA	0.70 U
Cobalt	-	7440-48-4	14.9	17.7 B	14.4	NA	4.3 B	NA	NA	4.4 B
Copper	200 ST	7440-50-8	0.7 U	1.5 U	1.5 U	NA	3.4 B	NA	NA	1.6 B
Iron	300 ST	7439-89-6	66,000	75,500	69,500	24,500	20,400	24,800	28,300	34,500
Lead	25 ST	7439-92-1	1 U	4	3.6	0.88 B	1.4 U	1.5 U	1.5 U	0.80 U
Magnesium	35,000 GV	7439-95-4	8,830	11,500	11,100	5,380	4,060 B	4,080 B	4,550 B	4,840 B
Manganese	300 ST	7439-96-5	1,700	2,900	2,470	589	690	725	764	829
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	7.4	7.1 B	5.4	NA	2.3 B	NA	NA	2.6 B
Potassium	-	7440-09-7	14,000	14,900	16,200	10,700	8,650	8,970	10,500	8,800
Selenium	10 ST	7782-49-2	2.8 U	2.2 B	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	1.3 B	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	21,100	26,500	27,500	15,300	13,700	14,000	14,900	13,300
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U	NA	0.82 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	85.9	5.9 B	3.6 U	NA	16.7 B	NA	NA	22.8
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	67,700	78,400	71,970	25,089	21,090	25,525	29,064	35,329

NOTES:

J Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST Standard

GV Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-04D 11/11/2003 (ug/l)	MW-04D 3/1/2004 (ug/l)	MW-04D 5/24/2004 (ug/l)	MW-04D 8/23/2004 (ug/l)	MW-04D 11/9/2004 (ug/l)	MW-04D 3/1/2005 (ug/l)	MW-04D 5/27/2005 (ug/l)	MW-04D 8/26/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	30.3 B	NA	NA	94.5 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	1.6 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	16.8	NA	NA	20.3	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	135 B	NA	NA	172 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.1 U	NA	NA	0.35 B	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	96.7 B	NA	NA	161	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.20 U	1.5 B	0.30 U	0.84 B	2.6 B	1.3 B	0.65 U
Calcium	-	7440-70-2	34,000	43,400	45,500	63,500	62,500	60,600	58,300	56,800
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.6 U	NA	NA	0.63 U	NA	NA
Cobalt	-	7440-48-4	NA	NA	4.7 B	NA	NA	5.0 B	NA	NA
Copper	200 ST	7440-50-8	NA	NA	0.9 U	NA	NA	1.3 B	NA	NA
Iron	300 ST	7439-89-6	35,300	45,700	48,900	61,000	65,600	66,400	64,500	58,000
Lead	25 ST	7439-92-1	1.1 U	1.6 U	0.7 U	2.6 B	1.1 U	1.1 U	1.2 U	4.4
Magnesium	35,000 GV	7439-95-4	5,720	7,110	7,730	9,970	9,860	9,350	8,950	8,050
Manganese	300 ST	7439-96-5	972	1,270	1,280	1,780	1,660	1,400	1,220	1,170
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	1.5 B	NA	NA	2.0 B	NA	NA
Potassium	-	7440-09-7	11,000	10,500	10,400	13,400	12,500	13,200	10,800	8,460
Selenium	10 ST	7782-49-2	NA	NA	1.8 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	13,900	16,400	15,000	21,900	24,100	25,100	25,500	22,400
Thallium	0.5 GV	7440-28-0	NA	NA	1.9 U	NA	NA	3.1 B	NA	NA
Vanadium	-	7440-62-2	NA	NA	1 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	18 B	NA	NA	63.6	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	36,272	46,970	50,180	62,780	67,260	67,800	65,720	59,170

NOTES:

J: Estimated due to data validation criteria

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detected based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-04D 11/30/2005 (ug/l)	MW-04D 3/1/2006 (ug/l)	MW-04D 5/22/2006 (ug/l)	MW-04D 8/10/2006 (ug/l)	MW-04D 11/30/2006 (ug/l)	MW-04D 2/23/2007 (ug/l)	MW-04D 5/24/2007 (ug/l)	MW-04D 8/10/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	24.4 B	31.2 B	69.0 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	19.2	8.1 B	5.1 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	44.8 B	37.1 B	32.9 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	1.1 B	1.2 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	62.7 B	64.6 B	61.1 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.12 U	0.34 U	0.28 U	1.5 B	0.62 B	0.82 B
Calcium	-	7440-70-2	48,100	39,700	30,100	23,400	19,500	18,400	15,900	20,700
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	1.4 B	1.6 B	0.43 B	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.8 B	1.5 B	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	3.7 B	3.7 B	0.44 U	NA
Iron	300 ST	7439-89-6	53,100	44,000	34,300	25,700	24,000	4,920	6,140	25,500
Lead	25 ST	7439-92-1	2.2 B	1.3 U	1.1 U	1.9 U	1.5 U	1.5 U	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	6,630	5,940	4370 B	3150 B	2900 B	2,820 B	2,410 B	3,100 B
Manganese	300 ST	7439-96-5	931	970	693	530	514	446	443	722
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	1.8 U	0.79 B	NA
Potassium	-	7440-09-7	7,790	8,440	7,280	5,850	5,000 B	5,410	4,650 B	5,280
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.59 B	1.1 B	NA
Sodium	20,000 ST	7440-23-5	22,000	20,000	15,900	10,900	8,900	9,160	7,970	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	4.9 B	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	62.0	38.5	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	54,031	44,970	34,993	26,230	24,514	5,366	6,583	26,222

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-04D 11/13/2007 (ug/l)	MW-04D 02/11/08 (ug/l)	MW-04D 5/15/2008 (ug/l)	MW-04D 8/4/2008 (ug/l)	MW-04D 11/3/2008 (ug/l)	MW-04D 2/23/2009 (ug/l)	MW-04D 8/12/2009 (ug/l)	MW-04D 2/4/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	12.5 U	35.6 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.6 B	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	12.9	NA	12.5	3.1 B
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	21.6 B	NA	44.9 B	23.6 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	40.6 BN	NA	28.1 B	39.1 B
Cadmium	5 ST	7440-43-9	0.32 U	0.58 B	0.27 U	0.47 B	0.35 U	0.48 B	0.26 U	0.34 U
Calcium	-	7440-70-2	16,600	15,700	12,700	9,450	9,600	12,500	18,400	10,600
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.57 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	0.49 U	0.51 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	1.6 B	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.6 B	NA	0.62 U	3.6 B
Iron	300 ST	7439-89-6	4,130	21,100	16,800	12,700	13,000	17,700	24,400	4,240 U*
Lead	25 ST	7439-92-1	1.4 UJ	1.4 U	2.3 U	2.3 U	4.0	1.3 U	13.2	1.8 U
Magnesium	35,000 GV	7439-95-4	2,570 B	2,350 B	1,950 B	1,490 B	1,460 B	1,850 B	2,380 B	1,490 B
Manganese	300 ST	7439-96-5	251	680	506	403	419	552	915	253
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	1.4 U
Potassium	-	7440-09-7	4,360 J	3,830 B	3,720 B	3,800 B	3,870 B	3,720 B	4,680 B	3,650 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	5.3 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.34 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	7,480	9,590	9,100	7,280	7,150	7,130	10,800	5,900
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	6.2 B	NA	11.2 B	24.5
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	4,381	21,780	17,306	13,103	13,419	18,252	25,315	4,493

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard

GV: Guidance value

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-041 10/29/1997 (ug/l)	MW-041 12/6/2000 (ug/l)	MW-041 2/1/2001 (ug/l)	MW-041 8/23/2002 (ug/l)	MW-041 11/22/2002 (ug/l)	MW-041 3/6/2003 (ug/l)	MW-041 6/3/2003 (ug/l)	MW-041 8/22/2003 (ug/l)
Aluminum	-	7429-90-5	365	19.9 B	18.7	NA	13.9 B	NA	NA	17.7 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 B	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	10.1	14.6	17.1	NA	11.5	NA	NA	17.5
Barium	1,000 ST	7440-39-3	128	175 B	107	NA	135 B	NA	NA	124 B
Beryllium	3 GV	7440-41-7	0.1	0.1 U	0.14	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	300	285	NA	231	NA	NA	211
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.25 B	0.50 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	53,200	92,000	62,200	41,700	85,700	85,500	101,000	90,100
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.3 U	3.5 U	0.6 U	NA	1 B	NA	NA	0.70 U
Cobalt	-	7440-48-4	2.5	1.7 B	1.7 U	NA	1 U	NA	NA	2.1 U
Copper	200 ST	7440-50-8	5.2	1.5 U	1.5 U	NA	2.8 B	NA	NA	2.2 B
Iron	300 ST	7439-89-6	31,800	55,200	38,200	29,000	56,200	53,000	62,500	56,900
Lead	25 ST	7439-92-1	3.7	1.9 B	1.9	0.8 U	1.4 U	1.5 U	1.6 B	0.80 U
Magnesium	35,000 GV	7439-95-4	9,580	15,700	9,960	5,690	10,700	11,100	12,800	10,400
Manganese	300 ST	7439-96-5	480	884	592	576	1,410	1,270	1,640	1,420
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U
Nickel	100 ST	7440-02-0	3.9	1.9 U	1.4 U	NA	3.5 B	NA	NA	5.0 B
Potassium	-	7440-09-7	69,400	21,700	19,400	10,100	14,800	15,400	18,900	13,600
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.5 U	NA	3.9 B	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	0.5 U	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	29,200	32,500	22,700	13,400	26,800	25,700	34,000	27,800
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	4.4	0.7 U	1.7 U	NA	1.8 B	NA	NA	2.0 B
Zinc	2,000 ST	7440-66-6	96.1	6.8 B	3.6 U	NA	19.3 B	NA	NA	7.1 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	32,280	56,084	38,792	29,576	57,610	54,270	64,140	58,320

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-04I 11/12/2003 (ug/l)	MW-04I 3/1/2004 (ug/l)	MW-04I 5/24/2004 (ug/l)	MW-04I 8/23/2004 (ug/l)	MW-04I 11/9/2004 (ug/l)	MW-04I 3/1/2005 (ug/l)	MW-04I 5/27/2005 (ug/l)	MW-04I 8/26/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	50.8 B	NA	NA	73.0 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	1.6 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	17.4	NA	NA	19.4	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	100 B	NA	NA	189 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.10 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	177 B	NA	NA	291	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.20 U	1.4 B	0.30 U	1.0 B	2.1 B	1.2 B	0.65 U
Calcium	-	7440-70-2	91,200	99,100	78,500	87,100	86,700	87,700	78,000	68,800
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.6 U	NA	NA	0.63 U	NA	NA
Cobalt	-	7440-48-4	NA	NA	0.9 U	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	0.9 U	NA	NA	1.1 U	NA	NA
Iron	300 ST	7439-89-6	56,100	61,600	50,500	51,900	56,600	56,000	48,100	44,700
Lead	25 ST	7439-92-1	1.1 U	1.6 U	0.7 U	2.0 B	1.1 U	1.1 U	1.2 U	3.2
Magnesium	35,000 GV	7439-95-4	10,500	10,600	8,680	9,570	10,600	12,800	11,600	9,230
Manganese	300 ST	7439-96-5	1,510	1,790	1,420	1,640	1,780	1,680	1,390	1,210
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	1.8 B	NA	NA	1.2 U	NA	NA
Potassium	-	7440-09-7	16,000	14,000	11,700	14,500	16,500	26,000	20,200	14,400
Selenium	10 ST	7782-49-2	NA	NA	1.8 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	29,500	30,800	22,000	26,400	27,400	27,200	26,600	21,200
Thallium	0.5 GV	7440-28-0	NA	NA	1.9 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	26.2 B	NA	NA	46.3	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	57,610	63,390	51,920	53,540	58,380	57,680	49,490	45,910

NOTES:

J Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed.

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-041 11/30/2005 (ug/l)	MW-041 3/1/2006 (ug/l)	MW-041 5/22/2006 (ug/l)	MW-041 8/10/2006 (ug/l)	MW-041 11/30/2006 (ug/l)	MW-041 2/23/2007 (ug/l)	MW-041 5/24/2007 (ug/l)	MW-041 8/10/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	16.8 B	18.9 B	63.8 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.7 B	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	14.4	7.5 B	2.0 U	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	47.7 B	30.3 B	33.1 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.58 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	94.3 B	80.9 B	89.6 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.12 U	0.34 U	0.28 U	0.28 U	0.20 B	0.16 U
Calcium	-	7440-70-2	59,700	53,300	41,200	52,600	34,500	28,700	31,600	76,800
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	1.2 B	0.74 B	0.33 U	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 U	0.40 U	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.8 B	7.1 B	U*	NA
Iron	300 ST	7439-89-6	38,300	33,000	25,500	31,200	20,500	4,420	2,900	54,400
Lead	25 ST	7439-92-1	2.0 B	1.3 U	1.1 U	1.9 U	1.5 U	1.5 U	1.1 U	1.1 U
Magnesium	35,000 GV	7439-93-4	7,470	7,060	5,140	5,890	3,630 B	3,020	3,240 B	9,030
Manganese	300 ST	7439-96-5	1,040	894	671	857	522	367	296	1,580
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	1.8 U	0.78 U	NA
Potassium	-	7440-09-7	13,400	15,400	12,400	11,700	7,770	7,360	7,310	14,600 J
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.48 B	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	19,500	18,200	15,800	18,600	13,400	11,500	13,900	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	2.9 U	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	45.3	37.0	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	39,340	33,894	26,171	32,057	32,057	4,787	3,196	55,980

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-041 11/13/2007 (ug/l)	MW-041 02/11/08 (ug/l)	MW-041 5/15/2008 (ug/l)	MW-041 8/5/2008 (ug/l)	MW-041 11/3/2008 (ug/l)	MW-041 2/23/2009 (ug/l)	MW-041 8/12/2009 (ug/l)	MW-041 2/4/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	12.5	24.6 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	11.8	NA	12.5	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	33.6 B	NA	103 B	35.9 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	81.8 BN	NA	125	94.3 B
Cadmium	5 ST	7440-43-9	0.32 U	0.58 B	0.27 U	0.27 U	0.35 U	0.35 U	0.40 B	0.34 U
Calcium	-	7440-70-2	36,400	42,300	24,600	32,600	28,100	33,300	61,000	30,000
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.45 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	0.49 U	0.44 U
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	0.80 B	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	3.3 B	NA	0.62 U	3.1 B
Iron	300 ST	7439-89-6	1,610	30,900	20,400	25,900	21,400	25,700	53,000	1,720 J*
Lead	25 ST	7439-92-1	1.4 UJ	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	10.7	2.0 B
Magnesium	35,000 GV	7439-95-4	3,800 B	4,560	2,700 B	3,760 B	3,060 B	3,520 B	6,110	3,250 B
Manganese	300 ST	7439-96-5	75.1	999	765	1,100	1,060	1,230	3,060	366
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	1.4 U
Potassium	-	7440-09-7	7,640 J	7,430	5,510	7,140	6,600	8,460	9,960	8,490
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 UN	NA	5.3 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	14,600	26,600	14,400	19,600	17,500	34,700	53,000	31,000
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	3.9 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	6.1 B	NA	15.2 B	16.0 B
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	1,685	31,899	21,165	27,000	22,460	26,930	56,060	2,086

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-04S 10/29/1997 (ug/l)	MW-04S 12/6/2000 (ug/l)	MW-04S 2/1/2001 (ug/l)	MW-04S 8/23/2002 (ug/l)	MW-04S 11/22/2002 (ug/l)	MW-04S 3/6/2003 (ug/l)	MW-04S 6/3/2003 (ug/l)	MW-04S 8/25/2003 (ug/l)
Aluminum	-	7429-90-5	574	28.8 B	32.4	NA	102 B	NA	NA	27.2 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	11.4	3.7 B	7.8	NA	4.5 U	NA	NA	8.1 B
Barium	1,000 ST	7440-39-3	441	278	285	NA	316	NA	NA	240
Beryllium	3 GV	7440-41-7	0.2	0.12 B	0.18	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	263	296	NA	320	NA	NA	273
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.10 U	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	152,000	99,400	109,000	115,000	123,000	139,000	138,000	109,000
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	16	3.5 U	0.6 U	NA	0.92 B	NA	NA	1.0 B
Cobalt	-	7440-48-4	2.1	0.9 U	1.7 U	NA	1 U	NA	NA	2.8 B
Copper	200 ST	7440-50-8	2.5	1.5 U	2.2	NA	6.7 B	NA	NA	2.7 B
Iron	300 ST	7439-89-6	56,800	44,800	49,600	56,400	46,900	54,600	44,300	43,100
Lead	25 ST	7439-92-1	1.0 U	1.4 U	2.8	2.8 B	1.4 U	1.5 U	1.6 B	0.80 U
Magnesium	35,000 GV	7439-95-4	22,600	14,400	15,300	14,000	13,700	16,300	16,100	11,900
Manganese	300 ST	7439-96-5	1,520	1,770	2,040	2,140	1,670	1,960	3,000	1,690
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	1.3 U	1.9 U	1.4 U	NA	4.3 B	NA	NA	4.7 B
Potassium	-	7440-09-7	30,800	19,800	21,800	17,900	17,500	20,300	21,800	14,300
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	1.3 B	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	29,900	32,100	33,300	32,500	29,700	31,600	33,900	26,400
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	3.2	1.1 B	1.7 U	NA	2.6 B	NA	NA	2.1 B
Zinc	2,000 ST	7440-66-6	32.3	2.2 U	3.6 U	NA	10 B	NA	NA	14.9 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	58,320	46,570	51,640	58,540	48,570	56,560	47,300	44,790

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-04S 11/12/2003 (ug/l)	MW-04S 3/2/2004 (ug/l)	MW-04S 5/24/2004 (ug/l)	MW-04S 8/23/2004 (ug/l)	MW-04S 11/9/2004 (ug/l)	MW-04S 3/1/2005 (ug/l)	MW-04S 5/27/2005 (ug/l)	MW-04S 8/26/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	43.2 B	NA	NA	93.8 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	1.6 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	11.4	NA	NA	15.8	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	191 B	NA	NA	248	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.1 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	261 B	NA	NA	310	NA	NA
Cadmium	5 ST	7440-43-9	0.30 U	0.20 U	2.2 B	0.30 U	1.3 B	2.7 B	0.94 B	0.65 U
Calcium	-	7440-70-2	139,000	122,000	124,000	118,000	122,000	132,000	119,000	106,000
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.6 U	NA	NA	0.63 U	NA	NA
Cobalt	-	7440-48-4	NA	NA	5 B	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	0.9 U	NA	NA	1.1 U	NA	NA
Iron	300 ST	7439-89-6	48,600	62,600	79,200	55,100	71,800	69,400	59,000	47,600
Lead	25 ST	7439-92-1	1.1 U	0.70 U	0.7 U	3.0 B	1.1 U	1.1 U	1.2 U	2.9 B
Magnesium	35,000 GV	7439-95-4	18,100	13,600	14,600	13,200	13,500	15,200	13,800	12,000
Manganese	300 ST	7439-96-5	3,690	2,360	2,180	2,720	2,100	2,940	3,350	2,820
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	4.4 B	NA	NA	3.8 B	NA	NA
Potassium	-	7440-09-7	20,000	17,200	16,700	19,000	18,200	21,900	20,800	14,900
Selenium	10 ST	7782-49-2	NA	NA	1.8 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	28,600	32,000	26,700	31,900	31,200	36,500	39,600	32,300
Thallium	0.5 GV	7440-28-0	NA	NA	2.1 B	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	14.7 B	NA	NA	53.3	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	52,290	64,960	81,380	57,820	73,900	72,340	62,350	50,420

NOTES:

J. Estimated due to data validation criteria.

K. Concentration exceeds Standard/Guidance Value.

U. Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B. Concentration is above instrument detection limit but below contract required detection

U*. Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-04S 11/29/2005 (ug/l)	MW-04S 2/28/2006 (ug/l)	MW-04S 5/22/2006 (ug/l)	MW-04S 8/10/2006 (ug/l)	MW-04S 11/30/2006 (ug/l)	MW-04S 3/2/2007 (ug/l)	MW-04S 5/24/2007 (ug/l)	MW-04S 8/10/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	29.6 B	418	363	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	2.9 B	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	11.9	10.9	8.9 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	298	293	327	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.38 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	242 B	233 B	242	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.49 B	0.12 U	0.34 U	0.28 U	0.31 B	0.16 U	0.16 U
Calcium	-	7440-70-2	114,000	119,000	116,000	108,000	100,000	100,000	102,000	98,800
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	2.0 B	2.0 B	1.6 B	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 U	1.0 B	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	3.8 B	2.7 B	0.44 U	NA
Iron	300 ST	7439-89-6	49,100	51,400	51,000	48,600	44,500	46,000	51,800	45,500
Lead	25 ST	7439-92-1	4.1	1.3 U	1.1 U	2.4 B	1.5 U	1.5 U	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	12,100	14,100	13,700	12,100	12,800	12,900	13,400	12,300
Manganese	300 ST	7439-96-5	3,000	3,230	3,140	2,810	2,750	2,620	2,690	2,350
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 B	1.8 U	2.6 B	NA
Potassium	-	7440-09-7	16,900	20,100	21,800	20,500	21,300	23,000	22,100	20,600 J
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	3.0 B	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	36,200	41,600	40,800	41,400	47,200	47,700	51,300	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	4.9 B	2.6 B	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	3.0 B	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	50.8	U*	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	52,100	54,630	54,140	51,410	47,230	48,620	54,490	47,850

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U. Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST Standard.

GV: Guidance value

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-04S 11/13/2007 (ug/l)	MW-04S 2/11/2008 (ug/l)	MW-04S 2/11/2008 (ug/l)	MW-04S 8/4/2008 (ug/l)	MW-04S 11/3/2008 (ug/l)	MW-04S 2/23/2009 (ug/l)	MW-04S 8/12/2009 (ug/l)	MW-04S 2/4/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	2630	NA	42.3 B	1540
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.6 B	NA	2.5 U	2.4 B
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	11.0	NA	6.5 B	7.5 B
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	306	NA	284	304
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.21 B	NA	0.13 U	0.32 B
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	195 BN	NA	154	179
Cadmium	5 ST	7440-43-9	0.32 U	1.0 B	0.27 U	0.73 B	0.63 B	0.35 U	0.50 B	0.34 U
Calcium	-	7440-70-2	93,300	91,900	91,900	94,900	95,400	96,400	93,800	92,200
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	5.1 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	2.3 B	3.7 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.4 B	NA	0.90 B	1.4 B
Copper	200 ST	7440-50-8	NA	NA	NA	NA	15.0 B	NA	0.62 U	0.83 U
Iron	300 ST	7439-89-6	51,600	43,400	46,400	46,300	53,700	49,800	45,300	48,800 J*
Lead	25 ST	7439-92-1	1.4 UJ	1.4 U	2.3 U	3.0 B	3.1	1.3 U	17.7	5.0
Magnesium	35,000 GV	7439-95-4	12,800	11,100	11,100	11,700	11,400	11,000	9,290	10,700
Manganese	300 ST	7439-96-5	2,490	2,300	2,250	2,240	2,250	2,350	2,270	2,580
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	4.9 B	NA	0.82 U	3.7 B
Potassium	-	7440-09-7	1,880 J	16,300	17,600	18,600	18,200	16,600	15,500	16,200
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	2.7 BN	NA	5.3 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	42,700	42,500	43,200	41,000	39,500	38,700	32,400	35,900
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	3.9 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	10.5 B	NA	0.77 U	8.3 B
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	15.7 B	NA	13.5 B	17.6 B
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	54,090	45,700	48,690	48,540	55,950	52,150	47,570	51,380

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NY/DEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-05D 10/29/1997 (ug/l)	MW-05D 12/8/2000 (ug/l)	MW-05D 2/2/2001 (ug/l)	MW-05D 8/23/2002 (ug/l)	MW-05D 11/22/2002 (ug/l)	MW-05D 3/7/2003 (ug/l)	MW-05D 6/3/2003 (ug/l)	MW-05D 8/25/2003 (ug/l)
Aluminum	-	7429-90-5	241	12.2 U	11.8 U	NA	365	NA	NA	20.8 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	117	206	190	NA	53.9 B	NA	NA	28.3 B
Beryllium	3 GV	7440-41-7	0.17	0.1 U	0.17	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	324	292	NA	83.1 B	NA	NA	57.8 B
Cadmium	5 ST	7440-43-9	0.3	0.77	0.69	0.30 B	0.5 U	0.10 U	0.25 B	0.30 U
Calcium	-	7440-70-2	47,300	107,000	99,900	39,500	36,900	33,700	27,800	21,600
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	2.9	3.5 U	0.85	NA	2.3 B	NA	NA	0.70 U
Cobalt	-	7440-48-4	4.6	5.3	4.6	NA	1.6 B	NA	NA	2.1 U
Copper	200 ST	7440-50-8	4.8	6.3	4.6	NA	4.9 B	NA	NA	1.2 U
Iron	300 ST	7439-89-6	374	101	23.2	763	751	122	60.6 B	53.8 B
Lead	25 ST	7439-92-1	1.2	2.1	1.1 U	0.80 U	8.1	1.5 U	1.5 U	0.80 U
Magnesium	35,000 GV	7439-95-4	12,400	26,200	23,300	7,740	7,250	8,000	6,820	4,800 B
Manganese	300 ST	7439-96-5	17,200	21,300	17,500	8,380	8,390	7,900	7,010	5,130
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U
Nickel	100 ST	7440-02-0	5.1	7.7	6.7	NA	3.5 B	NA	NA	1.5 U
Potassium	-	7440-09-7	20,200	33,100	33,000	13,500	11,100	9,080	8,860	5,700
Selenium	10 ST	7782-49-2	2.8 U	9.3	7.4	NA	3.6 B	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	5.5	2.9	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	26,500	62,500	43,400	30,300	30,100	24,700	19,400	13,700
Thallium	0.5 GV	7440-28-0	2.6 U	4.6 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U	NA	1.1 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	283	18.7	6	NA	193	NA	NA	12 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	17,574	21,401	17,523	9,143	9,141	8,022	7,071	5,184

NOTES:

J. Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-05D 11/12/2003 (ug/l)	MW-05D 3/2/2004 (ug/l)	MW-05D 5/25/2004 (ug/l)	MW-05D 8/23/2004 (ug/l)	MW-05D 11/10/2004 (ug/l)	MW-05D 3/2/2005 (ug/l)	MW-05D 5/31/2005 (ug/l)	MW-05D 8/26/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	32 B	NA	NA	80.8 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	1.6 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	2.1 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	24.3 B	NA	NA	28.7 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.14 B	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	38 B	NA	NA	49.8 B	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.25 B	0.5 B	0.30 B	0.23 B	0.32 B	0.37 U	0.65 U
Calcium	-	7440-70-2	20,400	26,000	17,600	19,900	20,800	21,800	19,400	20,100
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	1.9 B	NA	NA	1.4 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	1.5 B	NA	NA	1.8 B	NA	NA
Copper	200 ST	7440-50-8	NA	NA	1.3 B	NA	NA	1.9 B	NA	NA
Iron	300 ST	7439-89-6	257	893	99.9 B	35.6 B	32.8 B	43.6 B	6.7 B	61.2 B
Lead	25 ST	7439-92-1	2.5 B	1.5 B	1.1 B	1.2 U	1.4 B	1.1 U	1.2 U	1.7 U
Magnesium	35,000 GV	7439-95-4	4,110 B	5,030	3,630 B	3,700 B	4,040 B	4,190 B	3,730 B	3,610 B
Manganese	300 ST	7439-96-5	3,570	3,750	4,750	5,280	6,200	6,430	5,710	6,590
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	2.1 B	NA	NA	1.7 B	NA	NA
Potassium	-	7440-09-7	6,410	8,980	5,710	6,430	6,870	6,490	5,640	4,490 B
Selenium	10 ST	7782-49-2	NA	NA	1.8 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.88 B	NA	NA
Sodium	20,000 ST	7440-23-5	12,500	21,100	12,800	14,200	14,100	14,800	13,500	13,300
Thallium	0.5 GV	7440-28-0	NA	NA	1.9 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	14.7 B	NA	NA	45.3	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	3,827	4,643	4,849.9	5,315.6	6,232.8	6,473.6	5,716.7	6,651.2

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detected based on validation criteria

ST: Standard

GV: Guidance value

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-05D 11/30/2005 (ug/l)	MW-05D 3/1/2006 (ug/l)	MW-05D 5/18/2006 (ug/l)	MW-05D 8/9/2006 (ug/l)	MW-05D 11/30/2006 (ug/l)	MW-05D 2/21/2007 (ug/l)	MW-05D 5/25/2007 (ug/l)	MW-05D 8/14/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	56.6 B	50.9 B	110 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.5 B	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 U	3.4 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	79.6 B	10.3 B	74.6 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.55 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	61.3 B	67.2 B	69.9 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.31 B	0.35 B	1.1 B	1.1 B	0.45 B	1.0 B	0.91 B
Calcium	-	7440-70-2	19,700	21,600	22,000	52,000	45,700	42,100	41,900	36,000
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	2.0 B	1.1 B	0.94 B	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	3.4 B	1.3 U	3.2 B	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.8 B	3.2 B	0.44 U	NA
Iron	300 ST	7439-89-6	10 U	34.9 B	24.0 B	56.4 B	122	150	32.4 B	21.7 B
Lead	25 ST	7439-92-1	1.6 U	1.3 U	1.9 U	1.9 U	1.5 U	1.5 U	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	3,560 B	4,200 B	4,020 B	9,300	10,100	10,100	10,500	9,410
Manganese	300 ST	7439-96-5	6,750	7,260	8,090	17,500	16,400	1,400	15,500	13,500
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	7.7 B	1.9 B	9.9 B	NA
Potassium	-	7440-09-7	4660 B	6,370	5,510	9,040	9,330	9,790	7,600	6,880
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	2.9 B	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	12,900	13,900	15,300	28,600	40,900	42,300	44,300	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	4.0 B	2.9 U	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	71.2	30.6	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	6,750	7,295	8,114	17,556	16,522	1,550	15,532.4	13,521.7

NOTES:

J: Estimated due to data validation criteria.

K: Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-05D 8/14/2007 (ug/l)	MW-05D 2/11/2008 (ug/l)	MW-05D 5/15/2008 (ug/l)	MW-05D 8/5/2008 (ug/l)	MW-05D 11/5/2008 (ug/l)	MW-05D 2/26/2009 (ug/l)	MW-05D 8/17/2009 (ug/l)	MW-05D 2/8/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	43.2 B	NA	108 B	1700
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	48.4 B	NA	42.9 B	25.4 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	46.1 B	NA	36.6 B	42.0 B
Cadmium	5 ST	7440-43-9	0.99 B	0.88 B	0.52 B	0.62 B	0.43 B	0.72 B	0.70 B	4.8 B
Calcium	-	7440-70-2	24,700	41,500	32,000	32,500	28,600	28,200	27,500	17,500
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.96 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	0.90 B	4.3 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	2.2 B	NA	2.1 B	1.4 B
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.7 B	NA	1.4 B	7.4 B
Iron	300 ST	7439-89-6	315	85.0 B	926	12.5 B	48.6 B	10.2 B	21.2 B	2,650
Lead	25 ST	7439-92-1	1.4 UJ	2.2 B	8.0	2.3 U	1.3 U	1.5 B	20.6	21.1
Magnesium	35,000 GV	7439-95-4	6,890	12,800	10,500	10,500	8,930	7,600	7,760	7,960
Manganese	300 ST	7439-96-5	9,980	13,800	3,290	10,200	7,760	7,740	6,820	1,870
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	6.5 B	NA	7.9 B	6.1 B
Potassium	-	7440-09-7	5,710 J	5,920	5,840	6,170	5,100	4,600 B	3,940 B	3,050 J*
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	4.6 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	1.3 B	NA	0.81 B	0.83 U
Sodium	20,000 ST	7440-23-5	33,600	41,000	37,700	41,100	35,300	29,200	26,800	22,300
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.9 U	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	4.2 B
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	4.3 B	NA	8.0 B	206
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	10,295	13,885	4,216	10,213	7,809	7,750.2	6,830.2	4,520

NOTES:

J- Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-051 10/29/1997 (ug/l)	MW-051 12/8/2000 (ug/l)	MW-051 2/2/2001 (ug/l)	MW-051 8/23/2002 (ug/l)	MW-051 11/22/2002 (ug/l)	MW-051 3/7/2003 (ug/l)	MW-051 6/3/2003 (ug/l)	MW-051 8/25/2003 (ug/l)
Aluminum	-	7429-90-5	330	12.2 U	15.8	NA	287	NA	NA	143 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	4.3	3.5	5.5	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	17.8	50.4	57.7	NA	43.2 B	NA	NA	50.5 B
Beryllium	3 GV	7440-41-7	0.1	0.1 U	0.1 U	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	176	138	NA	86 B	NA	NA	99.8 B
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.36	0.1 U	0.5 U	0.1 U	0.10 U	0.30 U
Calcium	-	7440-70-2	8,280	39,200	45,300	28,100	34,500	36,700	36,000	34,500
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	3.3	3.5 U	0.6 U	NA	2.1 B	NA	NA	1.4 B
Cobalt	-	7440-48-4	1.1 U	0.9 U	1.7 U	NA	1 U	NA	NA	2.1 U
Copper	200 ST	7440-50-8	2.5	1.5 U	1.5 U	NA	2.3 B	NA	NA	3.8 B
Iron	300 ST	7439-89-6	7,250	14,600	15,400	7,070	9,080	10,300	10,900	4,990
Lead	25 ST	7439-92-1	3	1.4 U	1.1 U	3.5	2.9 B	1.5 U	1.5 U	1.6 B
Magnesium	35,000 GV	7439-95-4	1,260	6,780	8,460	5,000 B	5,940	6,570	6,110	5,460
Manganese	300 ST	7439-96-5	1,080	1,160	1,380	1,130	1,150	1,270	1,370	1,170
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	3.6	1.9 U	1.4 U	NA	1.8 B	NA	NA	1.6 B
Potassium	-	7440-09-7	4,820	14,900	15,300	9,360	8,270	14,400	15,400	12,900
Selenium	10 ST	7782-49-2	2.8 U	2.1	1.6	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	1.1	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	12,500	20,100	24,100	17,500	23,600	27,900	24,000	20,700
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U	NA	0.67 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	95.3	4.6	3.6 U	NA	57.4	NA	NA	149
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	8,330	15,760	16,780	8,200	10,230	11,570	12,270	6,160

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-051 11/12/2003 (ug/l)	MW-051 3/2/2004 (ug/l)	MW-051 5/25/2004 (ug/l)	MW-051 8/23/2004 (ug/l)	MW-051 11/10/2004 (ug/l)	MW-051 3/2/2005 (ug/l)	MW-051 5/31/2005 (ug/l)	MW-051 8/29/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	49 B	NA	NA	98.6 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.3 B	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	7 B	NA	NA	5.6 B	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	83.3 B	NA	NA	85.6 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.1 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	139 B	NA	NA	132	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.20 U	0.56 B	0.30 U	0.23 U	0.46 B	0.37 U	0.65 U
Calcium	-	7440-70-2	43,700	48,100	49,000	40,200	55,000	53,400	51,600	59,200
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.6 U	NA	NA	0.63 U	NA	NA
Cobalt	-	7440-48-4	NA	NA	0.9 U	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	0.9 U	NA	NA	1.1 U	NA	NA
Iron	300 ST	7439-89-6	14,500	9,820	11,300	13,400	20,700	18,200	17,400	19,200
Lead	25 ST	7439-92-1	1.1 U	0.70 U	0.7 U	1.2 U	1.1 U	1.1 U	1.2 U	2.7 B
Magnesium	35,000 GV	7439-95-4	7,340	8,540	9,360	6,720	9,750	9,810	9,170	8,740
Manganese	300 ST	7439-96-5	1,360	883	1,170	967	1,260	909	899	1,260
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	1.1 U	NA	NA	1.2 U	NA	NA
Potassium	-	7440-09-7	22,300	25,500	21,500	20,300	23,900	22,300	19,600	16,300
Selenium	10 ST	7782-49-2	NA	NA	1.8 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	34,400	36,400	29,700	25,300	28,000	25,500	25,400	28,500
Thallium	0.5 GV	7440-28-0	NA	NA	1.9 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	24.9 B	NA	NA	52.8	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	15,860	10,703	12,470	14,367	21,360	19,109	18,299	20,460

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-051 11/30/2005 (ug/l)	MW-051 3/1/2006 (ug/l)	MW-051 5/18/2006 (ug/l)	MW-051 8/9/2006 (ug/l)	MW-051 11/30/2006 (ug/l)	MW-051 2/21/2007 (ug/l)	MW-051 5/25/2007 (ug/l)	MW-051 8/14/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	51.9 B	27.5 B	230	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	2.4 B	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	7.0 B	4.6 B	8.4 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	44.5 B	41.2 B	52.2 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.52 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	85.2 B	95.3 B	94.9 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.34 U	0.34 U	0.34 U	0.28 U	0.32 B	0.16 U	0.16 U
Calcium	-	7440-70-2	73,800	49,200	61,700	66,600	41,200	44,000	41,600	39,100
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.87 B	1.3 B	0.33 U	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 U	0.70 B	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	3.0 B	20.2	0.44 U	NA
Iron	300 ST	7439-89-6	22,600	15,500	19,100	22,700	13,900	11,000	14,800	16,700
Lead	25 ST	7439-92-1	1.6 U	1.3 U	1.9 U	1.9 U	1.5 U	2.4 B	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	9,560	7,510	7,360	8,960	5,770	6,620	6,280	5,700
Manganese	300 ST	7439-96-5	1,500	1,010	1,200	1,900	1,670	1,300	1,720	3,170
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	1.8 U	0.78 U	NA
Potassium	-	7440-09-7	17,500	18,300	19,500	20,900	12,700	14,300	14,600	13,200
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	2.3 B	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	37,100	26,200	30,100	34,600	24,000	29,300	33,900	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	4.5 B	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	61.2	35.4	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	24,100	16,510	20,300	24,600	15,570	12,300	16,520	19,870

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed.

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-051 11/13/2007 (ug/l)	MW-051 2/11/2008 (ug/l)	MW-051 5/15/2008 (ug/l)	MW-051 8/5/2008 (ug/l)	MW-051 11/5/2008 (ug/l)	MW-051 2/26/2009 (ug/l)	MW-051 8/17/2009 (ug/l)	MW-051 2/8/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	105 B	2680
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	4.3 B	NA	3.2 B	3.5 B
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	20.4 B	NA	21.9 B	46.8 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	84.5 B	NA	52.7 B	69.6 B
Cadmium	5 ST	7440-43-9	0.38 B	0.35 B	0.27 U	0.27 U	0.35 U	0.35 U	0.50 B	3.0 B
Calcium	-	7440-70-2	41,100	30,000	34,300	28,600	16,300	22,300	22,800	19,300
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.57 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	0.60 B	5.0 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	0.76 U	1.3 B
Copper	200 ST	7440-50-8	NA	NA	NA	NA	1.2 B	NA	0.80 B	7.7 B
Iron	300 ST	7439-89-6	1,750	8,920	10,700	8,490	5,020	7,920	8,890	9,230
Lead	25 ST	7439-92-1	1.4 UJ	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	6.9	14.8
Magnesium	35,000 GV	7439-95-4	6,340	4,350 B	5,350	4,580 B	2,480 B	3,360 B	3,660	3,450 B
Manganese	300 ST	7439-96-5	398	2,290	2,880	2,410	1,580	2,520	3,150	1,840
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.28	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	3.1 B
Potassium	-	7440-09-7	12,400 J	13,300	12,100	13,800	9250	7,510	7,650	9,130 J*
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	4.6 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.44 B	0.83 U
Sodium	20,000 ST	7440-23-5	33,700	30,000	26,300	28,100	21,600	21,400	17,000	16,700
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.9 U	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	5.7 B
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	5.0 B	NA	9.5 B	386
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	2,148	11,210	13,580	10,900	6,600	10,440	12,040	11,070

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST Standard

GV Guidance value

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-05S 10/29/1997 (ug/l)	MW-05S 12/8/2000 (ug/l)	MW-05S 2/2/2001 (ug/l)	MW-05S 8/23/2002 (ug/l)	MW-05S 11/22/2002 (ug/l)	MW-05S 3/7/2003 (ug/l)	MW-05S 6/5/2003 (ug/l)	MW-05S 8/25/2003 (ug/l)
Aluminum	-	7429-90-5	121	234	313	NA	540	NA	NA	534
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	4.5 B	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	6.0 B
Barium	1,000 ST	7440-39-3	296	214	206	NA	164 B	NA	NA	326
Beryllium	3 GV	7440-41-7	0.13	0.23	0.3	NA	0.4 U	NA	NA	0.59 B
Boron	1,000 ST	7440-42-8	NA	254	226	NA	153	NA	NA	376
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.10 U	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	105,000	93,500	90,500	71,800	74,500	74,600	78,100	102,000
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	6.5	3.5 U	1.7	NA	6 U	NA	NA	1.5 B
Cobalt	-	7440-48-4	1.3	0.9 U	1.7 U	NA	1 U	NA	NA	7.4 B
Copper	200 ST	7440-50-8	0.7 U	1.5 U	1.5 U	NA	5.4 B	NA	NA	2.9 B
Iron	300 ST	7439-89-6	32,000	28,300	29,800	28,300	26,100	27,700	28,100	38,000
Lead	25 ST	7439-92-1	1.0 U	2.9	2.5	0.80 U	1.7 B	1.5 U	1.6 B	1.1 B
Magnesium	35,000 GV	7439-95-4	17,900	13,300	12,900	8,580	7,910	9,790	10,100	14,700
Manganese	300 ST	7439-96-5	3,370	3,860	3,940	5,100	5,260	5,500	6,320	3,460
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	4.6	1.9 U	1.4 U	NA	8.0 B	NA	NA	5.3 B
Potassium	-	7440-09-7	20,600	14,000	14,300	10,600	9,940	11,500	11,900	13,000
Selenium	10 ST	7782-49-2	2.8 U	3.1	2.4	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	2.1	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	35,000	28,500	27,300	28,300	27,700	25,900	25,500	24,500
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.8	2.5	2.6	NA	3.6 B	NA	NA	1.9 B
Zinc	2,000 ST	7440-66-6	25	2.2 U	3.6 U	NA	33.9	NA	NA	112
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	35,370	32,160	33,740	33,400	31,360	28,200	34,420	41,460

NOTES:

J. Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U. Analyzed for but not detected, value shown is instrument detection limit.

NA. Not analyzed.

B. Concentration is above instrument detection limit but below contract required detection

U*. Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-05S 11/12/2003 (ug/l)	MW-05S 3/2/2004 (ug/l)	MW-05S 5/25/2004 (ug/l)	MW-05S 8/23/2004 (ug/l)	MW-05S 11/10/2004 (ug/l)	MW-05S 3/2/2005 (ug/l)	MW-05S 5/31/2005 (ug/l)	MW-05S 8/29/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	721	NA	NA	214	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	1.6 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	5 B	NA	NA	5.1 B	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	163 B	NA	NA	251	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.68 B	NA	NA	0.41 B	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	122 B	NA	NA	158	NA	NA
Cadmium	5 ST	7440-43-9	0.30 U	0.20 U	1.2 B	0.30 U	0.54 B	1.5 B	1.0 B	0.65 U
Calcium	-	7440-70-2	102,000	69,500	49,800	95,800	86,300	66,900	88,000	110,000
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	2.5 B	NA	NA	0.91 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	14.7 B	NA	NA	11.3 B	NA	NA
Copper	200 ST	7440-50-8	NA	NA	0.96 B	NA	NA	1.2 B	NA	NA
Iron	300 ST	7439-89-6	23,600	26,000	31,500	41,500	29,000	31,600	45,100	43,300
Lead	25 ST	7439-92-1	1.1 U	0.70 U	0.7 U	2.1 B	1.1 U	1.1 U	1.2 U	3.4
Magnesium	35,000 GV	7439-95-4	14,200	9,650	7,280	12,100	10,900	9,740	12,200	14,400
Manganese	300 ST	7439-96-5	6,780	4,570	2,570	4,600	5,910	3,460	4,940	5,370
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	7.7 B	NA	NA	7.4 B	NA	NA
Potassium	-	7440-09-7	14,900	12,500	8,370	17,000	14,600	11,900	16,500	14,400
Selenium	10 ST	7782-49-2	NA	NA	1.8 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	27,600	18,600	14,600	30,300	29,000	26,700	36,700	34,900
Thallium	0.5 GV	7440-28-0	NA	NA	1.9 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1 U	NA	NA	2 B	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	25 B	NA	NA	62.9	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	30,380	30,570	34,070	46,100	34,910	35,060	50,040	48,670

NOTES:

J. Estimated due to data validation criteria.

K. Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B. Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-05S 11/30/2005 (ug/l)	MW-05S 3/1/2006 (ug/l)	MW-05S 5/18/2006 (ug/l)	MW-05S 8/9/2006 (ug/l)	MW-05S 11/30/2006 (ug/l)	MW-05S 2/21/2007 (ug/l)	MW-05S 6/1/2007 (ug/l)	MW-05S 8/14/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	55.8 B	554	10.4 U	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	4.0 B	5.4 B	7.7 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	336	347	345	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.33 B	0.087 U	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	286 B	286 B	301 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	2.1 B	1.2 B	0.16 U
Calcium	-	7440-70-2	129,000	141,000	125,000	122,000	112,000	109,000	109,000	11,600
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	2.4 B	1.3 B	0.43 B	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	5.9 B	6.9 B	3.3 B	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.0 B	4.0 B	2.2 B	NA
Iron	300 ST	7439-89-6	44,200	35,400	34,200	41,000	44,600	47,500	46,800	48,500
Lead	25 ST	7439-92-1	1.6 U	1.3 U	3.4	1.9 U	1.5 U	1.5 U	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	16,900	20,300	15,700	14,600	14,000	14,600	14,100	14,900
Manganese	300 ST	7439-96-5	6,050	4,640	5,130	6,240	4,790	4,500	4,710	4,560
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	4.5 B	4.2 B	4.8 B	NA
Potassium	-	7440-09-7	17,700	23,700	18,600	17,800	18,200	20,900	17,800	18,400
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.71 B	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	36,500	43,800	36,800	33,700	39,700	42,000	37,000	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	5.3 B	6.6 B	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.7 B	2.7 B	2.4 B	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	17.3 B	20.7	9.6 B	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	50,250	40,040	39,330	47,240	49,390	52,000	51,510	53,060

NOTES:

J- Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value
 U Analyzed for but not detected, value shown is instrument detection limit.

NA- Not analyzed

B- Concentration is above instrument detection limit but below contract required detection

U*- Result qualified as non-detect based on validation criteria

ST- Standard.

GV- Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-05S 11/13/2007 (ug/l)	MW-05S 2/11/2008 (ug/l)	MW-05S 5/15/2008 (ug/l)	MW-05S 8/5/2008 (ug/l)	MW-05S 11/5/2008 (ug/l)	MW-05S 2/26/2009 (ug/l)	MW-05S 8/17/2009 (ug/l)	MW-05S 2/8/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	85.0 B	NA	214	541
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	3.4 B	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	300	NA	322	199 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.55 B
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	223 B	NA	279	146
Cadmium	5 ST	7440-43-9	0.32 U	1.2 B	0.27 U	0.78 B	0.35 U	0.35 U	0.90 B	0.34 U
Calcium	-	7440-70-2	96,400	97,500	83,500	97,300	91,500	89,400	103,000	62,600
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	1.8 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	1.3 B	2.6 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	3.4 B	NA	1.4 B	5.5 B
Copper	200 ST	7440-50-8	NA	NA	NA	NA	4.5 B	NA	0.62 U	0.83 U
Iron	300 ST	7439-89-6	55,300	42,500	38,400	42,100	40,000	36,900	41,000	20,500
Lead	25 ST	7439-92-1	1.4 UJ	1.4 U	2.3 U	2.3 B	1.3 U	1.3 U	18.5	4.5
Magnesium	35,000 GV	7439-95-4	12,500	12,300	10,900	12,800	11,700	11,400	13,000	8,300
Manganese	300 ST	7439-96-5	42,400	4,850	4,100	4,480	4,550	4,420	4,710	2,520
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	5.9 B	NA	0.82 U	4.4 B
Potassium	-	7440-09-7	15,300 J	14,300	13,400	15,400	14,900	12,900	13,800	10,800 J*
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	4.6 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.65 B	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	31,800	32,900	28,400	30,600	28,500	25,900	27,800	2,400
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	4.4 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	3.4 B	NA	0.77 U	3.8 B
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	1.5 U	NA	14.3 B	22.7
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	97,700	47,350	42,500	46,580	44,550	41,320	45,710	23,020

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-06D 10/28/1997 (ug/l)	MW-06D 12/5/2000 (ug/l)	MW-06D 1/31/2001 (ug/l)	MW-06D 8/22/2002 (ug/l)	MW-06D 11/20/2002 (ug/l)	MW-06D 3/5/2003 (ug/l)	MW-06D 6/5/2003 (ug/l)	MW-06D 8/22/2003 (ug/l)
Aluminum	-	7429-90-5	320	12.2 U	14.9	NA	19.3 B	NA	NA	17.2 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	4.6 B	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	3.2	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	15.1	23.8 B	20.1	NA	19 B	NA	NA	20.4 B
Beryllium	3 GV	7440-41-7	0.1 U	0.1 U	0.1 U	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	44.7 B	63.6	NA	63.2 B	NA	NA	54.9 B
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.16 B	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	5,070	4,640 B	4,290	7,740	6,460	7,600	6,200	5,050
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	1.3	3.5 U	0.6 U	NA	1.5 B	NA	NA	0.70 U
Cobalt	-	7440-48-4	6.6	5.7 B	5.3	NA	6.2 B	NA	NA	5.3 B
Copper	200 ST	7440-50-8	2.5	2.1 B	1.5 U	NA	6.6 B	NA	NA	1.3 B
Iron	300 ST	7439-89-6	5,220	5,040	4,000	6,320	4,120	6,150	5,330	4,360
Lead	25 ST	7439-92-1	1.0 U	1.4 U	1.1 U	0.80 U	1.4 U	1.5 U	2.6 B	0.80 U
Magnesium	35,000 GV	7439-95-4	2,040	1,930 B	1,800	4,020 B	3,300 B	3,580 B	2,740 B	2,080 B
Manganese	300 ST	7439-96-5	6,800	8,160	7,680	12,800	9,440	11,700	11,200	8,720
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U
Nickel	100 ST	7440-02-0	3.3	2.3 B	2	NA	5.2 B	NA	NA	2.8 B
Potassium	-	7440-09-7	1,140	1,220 B	1,260	1,560 B	1,180 B	1,540 B	1,680 B	1,140 B
Selenium	10 ST	7782-49-2	2.8 U	4.3 B	2.9	NA	5.2	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	2.4 B	1.8	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	11,600	20,400	17,700	11,800	11,000	11,400	10,900	8,960
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U	NA	0.63 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	75.1	3.8 B	3.6 U	NA	31.8	NA	NA	8.8 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	12,020	13,200	11,680	19,620	13,560	17,850	16,530	13,080

NOTES:

J. Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B. Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-06D 11/11/2003 (ug/l)	MW-06D 2/27/2004 (ug/l)	MW-06D 5/24/2004 (ug/l)	MW-06D 8/20/2004 (ug/l)	MW-06D 11/9/2004 (ug/l)	MW-06D 3/1/2005 (ug/l)	MW-06D 5/27/2005 (ug/l)	MW-06D 8/26/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	87.6 B	NA	NA	105 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	1.6 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.4 B	NA	NA	3.0 B	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	4 B	NA	NA	23.6 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.1 U	NA	NA	0.34 B	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	55.8 B	NA	NA	57.8 B	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.20 U	0.23 B	0.30 U	0.23 U	0.56 B	0.37 U	0.65 U
Calcium	-	7440-70-2	5,600	5,820	6,590	5,290	5,950	5,600	5,050	4,940 B
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.96 B	NA	NA	2.2 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	0.9 B	NA	NA	5.9 B	NA	NA
Copper	200 ST	7440-50-8	NA	NA	5.8 B	NA	NA	1.3 B	NA	NA
Iron	300 ST	7439-89-6	5,030	5,120	1,610	3,580	4,870	3,360	1,960	2,970
Lead	25 ST	7439-92-1	2.4 B	1.6 U	1.8 B	1.2 U	2.2 B	1.1 U	1.2 U	1.7 U
Magnesium	35,000 GV	7439-95-4	2,390 B	2,470 B	2,530 B	2,380 B	2,490 B	2,520 B	2,440 B	2,110 B
Manganese	300 ST	7439-96-5	12,500	10,000	3,730	8,490	9,160	9,350	8,530	9,170
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	5.7 B	NA	NA	4.2 B	NA	NA
Potassium	-	7440-09-7	1930 B	1,340 B	1,570 B	1,440 B	1,660 B	1,590 B	1,610 B	1,180 B
Selenium	10 ST	7782-49-2	NA	NA	1.8 U	NA	NA	3.0 B	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	1.2 B	NA	NA
Sodium	20,000 ST	7440-23-5	8,940	9,980	7,930	10,100	9,390	10,100	10,100	10,200
Thallium	0.5 GV	7440-28-0	NA	NA	1.9 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	45.8	NA	NA	69.2	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	17,530	15,120	5,340	12,070	14,030	12,710	10,490	12,140

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B. Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-06D 11/29/2005 (ug/l)	MW-06D 2/28/2006 (ug/l)	MW-06D 5/18/2006 (ug/l)	MW-06D 8/9/2006 (ug/l)	MW-06D 12/1/2006 (ug/l)	MW-06D 2/22/2007 (ug/l)	MW-06D 5/24/2007 (ug/l)	MW-06D 8/10/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	17.5 B	22.0 B	82.3 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	2.7 B	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 U	2.0 U	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	25.9 B	6.4 U	2.2 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.52 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	146 B	150 B	147	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	0.28 U	0.16 U	0.25 B
Calcium	-	7440-70-2	4,360 B	4,920 B	4,870 B	4,870 B	5,120	5,260	5,150	4,700 B
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.92 B	0.50 U	0.53 B	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	5.8 B	1.3 U	0.40 U	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	1.3 B	2.8 B	0.44 U	NA
Iron	300 ST	7439-89-6	2,590	2,550	3,010	2,780	3,270	554	643	2,970
Lead	25 ST	7439-92-1	2.1 B	1.3 U	2.4 B	1.9 U	1.5 U	2.0 B	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	1870 B	2340 B	2110 B	2060 B	2420 B	2,490 B	2,410 B	2,210 B
Manganese	300 ST	7439-96-5	7,620	7,200	8,320	7,470	8,320	2,610	443	7,200
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	4.6 B	2.8 B	0.78 U	NA
Potassium	-	7440-09-7	2,050 B	1,580 B	1,200 B	1,820 B	1,440 B	1,600 B	1,400 B	1,280 JB
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.99 B	NA
Sodium	20,000 ST	7440-23-5	9,940	11,300	10,600	8,750	10,300	10,400	10,400	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	2.9 U	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	44.0	U*	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	10,210	9,750	11,330	10,250	11,590	3,164	1,086	10,170

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-06D 11/9/2007 (ug/l)	MW-06D 2/11/2008 (ug/l)	MW-06D 5/15/2008 (ug/l)	MW-06D 8/4/2008 (ug/l)	MW-06D 11/3/2008 (ug/l)	MW-06D 2/23/2009 (ug/l)	MW-06D 8/11/2009 (ug/l)	MW-06D 2/4/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	NA	NA	38.6 B	26.4 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	40.5 B	NA	49.5	3.5 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	151 BN	NA	186	157
Cadmium	5 ST	7440-43-9	0.32 U	0.33 B	0.27 U	0.39 B	0.35 U	0.35 U	0.30 B	0.34 U
Calcium	-	7440-70-2	5,670	7,010	6,330	8,040	7920	8,540	8,130	7,860
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	2.3B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	0.60 B	0.72 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	9.5 B	NA	11.1 B	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.7 B	NA	0.62 U	2.2 B
Iron	300 ST	7439-89-6	1,010	4,600	2,210	5,190	5,920	6,670	6,080	232 J*
Lead	25 ST	7439-92-1	6.5 J	1.4 U	2.7 B	2.3 U	1.3 U	1.3 U	14.9	1.8 U
Magnesium	35,000 GV	7439-95-4	2,340 B	3,410 B	3,070 B	4,540 B	4,270 B	4,580 B	4,250 B	4,430 B
Manganese	300 ST	7439-96-5	1,300	9,690	6,440	10,100	9,930	11,100	9,010	581
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	6.8 B	NA	7.2 B	1.4 U
Potassium	-	7440-09-7	1,580 J	1,290 B	1,400 B	1,910 B	1,780 B	1,800 B	2,030 B	1,910 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 UN	NA	5.5	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	1.7 B	NA	0.34 B	0.83 U
Sodium	20,000 ST	7440-23-5	9,930	10,500	11,300	15,200	17,300	16,100	18,100	15,600
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.4 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	1.5 U	NA	10.8 B	9.6 B
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	2,310	14,290	8,650	15,290	15,850	17,770	15,090	813

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-061 10/28/1997 (ug/l)	MW-061 12/5/2000 (ug/l)	MW-061 2/1/2001 (ug/l)	MW-061 8/21/2002 (ug/l)	MW-061 11/21/2002 (ug/l)	MW-061 3/5/2003 (ug/l)	MW-061 6/5/2003 (ug/l)	MW-061 8/22/2003 (ug/l)
Aluminum	-	7429-90-5	140	17.6 B	16.4	NA	38.8 B	NA	NA	14.2 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	4.3	2.5 U	2.6	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	107	88.4 B	91.4	NA	39.9 B	NA	NA	51.5 B
Beryllium	3 GV	7440-41-7	0.1	0.1 U	0.14	NA	0.4 U	NA	NA	0.2 U
Boron	1,000 ST	7440-42-8	NA	149	186	NA	209	NA	NA	357
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.29 B	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	33,300	36,900	36,000	19,700	19,100	20,500	20,300	22,400
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.73	3.5 U	0.6 U	NA	1.5 B	NA	NA	0.70 U
Cobalt	-	7440-48-4	6.4	3 B	2.3	NA	1.1 B	NA	NA	2.5 B
Copper	200 ST	7440-50-8	3.9	2.6 B	1.5 U	NA	9.6 B	NA	NA	2.2 B
Iron	300 ST	7439-89-6	6,490	5,150	3,660	2,660	1,510	2,320	1,230	4,740
Lead	25 ST	7439-92-1	1	1.4 U	1.1 U	1.9 B	1.4 U	1.5 U	1.9 B	0.80 U
Magnesium	35,000 GV	7439-95-4	3.810	4,020 B	3,680	1,890 B	1,980 B	1,790 B	1,970 B	2,000 B
Manganese	300 ST	7439-96-5	2,100	805	807	383	277	392	278	843
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U
Nickel	100 ST	7440-02-0	2	1.9 U	1.4 U	NA	2.7 B	NA	NA	1.5 B
Potassium	-	7440-09-7	7,680	8,540	9,670	5,500	4,310 B	5,080	5,200	5,290
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	0.75 B	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	14,000	19,600	17,400	10,700	9,230	9,870	10,000	11,400
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U	NA	0.62 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	61.4	5 B	3.6 U	NA	36.6	NA	NA	9.3 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	8,590	5,955	4,467	3,043	1,787	2,712	1,508	5,613

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-061 11/11/2003 (ug/l)	MW-061 2/27/2004 (ug/l)	MW-061 5/24/2004 (ug/l)	MW-061 8/20/2004 (ug/l)	MW-061 11/9/2004 (ug/l)	MW-061 3/1/2005 (ug/l)	MW-061 5/27/2005 (ug/l)	MW-061 8/25/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	59 B	NA	NA	88.6 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	1.6 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.7 B	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	32.7 B	NA	NA	65.7 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.1 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	398 B	NA	NA	223	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.20 U	0.2 U	0.30 U	0.23 U	0.23 U	0.37 U	0.65 U
Calcium	-	7440-70-2	21,600	19,700	18,700	19,600	29,600	28,600	24,400	20,100
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.69 B	NA	NA	0.63 U	NA	NA
Cobalt	-	7440-48-4	NA	NA	1.2 B	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	9.3 B	NA	NA	7.2 B	NA	NA
Iron	300 ST	7439-89-6	4,570	4,510	2,250	1,580	3,530	996	1,750	1,420
Lead	25 ST	7439-92-1	1.1 U	1.6 U	0.7 U	1.2 U	1.7 B	1.1 U	1.2 U	1.7 U
Magnesium	35,000 GV	7439-95-4	2,100 B	1,930 B	2,200 B	2,020 B	3,370 B	3,770 B	2,480 B	1,680 B
Manganese	300 ST	7439-96-5	861	807	325	229	844	248	407	262
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	4.5 B	NA	NA	2.5 B	NA	NA
Potassium	-	7440-09-7	5,990	4,200 B	4,520 B	4,420 B	5,450	5,830	3,870 B	3,730 B
Selenium	10 ST	7782-49-2	NA	NA	1.8 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	1.4 B	NA	NA
Sodium	20,000 ST	7440-23-5	9,000	9,820	8,590	13,600	19,500	22,000	11,700	13,300
Thallium	0.5 GV	7440-28-0	NA	NA	1.9 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	26.8 B	NA	NA	43.5	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	5,431	5,317	2,575	1,809	4,374	1,244	2,157	1,682

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-061 11/29/2005 (ug/l)	MW-061 2/28/2006 (ug/l)	MW-061 5/18/2006 (ug/l)	MW-061 8/9/2006 (ug/l)	MW-061 12/1/2006 (ug/l)	MW-061 2/22/2007 (ug/l)	MW-061 5/24/2007 (ug/l)	MW-061 8/10/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	12.4 B	33.2 B	72.8 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 U	2.0 U	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	104 B	81.5 B	76.0 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.51 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	276 B	302 B	277	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	0.28 U	0.16 U	0.16 U
Calcium	-	7440-70-2	32,000	45,300	30,000	28,900	28,400	27,500	24,800	21,300
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.80 B	0.50 U	0.33 U	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	2.1 B	1.3 U	0.40 U	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	0.91 B	5.8 B	0.44 U	NA
Iron	300 ST	7439-89-6	3,580	4,080	2,840	3,030	2,620	732	971	827
Lead	25 ST	7439-92-1	2.3 B	1.3 U	1.9 U	1.9 U	1.5 U	1.5 U	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	2260 B	3000 B	1800 B	1790 B	2030 B	2,030 B	1,830 B	1,730 B
Manganese	300 ST	7439-96-5	600	831	481	410	393	147	114	247
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	1.8 U	0.78 U	NA
Potassium	-	7440-09-7	5,930	12,700	10,200	11,000	10,900	11,300	9,190	6,670 J
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	15,100	26,100	13,900	13,500	14,200	14,000	13,600	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	3.3 B	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	9.4 B	U*	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	4,180	4,911	3,321	3,440	3,013	879	1,085	1,074

NOTES:

J. Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U. Analyzed for but not detected. value shown is instrument detection limit.

NA. Not analyzed.

B. Concentration is above instrument detection limit but below contract required detection

U*. Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-061 11/9/2007 (ug/l)	MW-061 2/11/2008 (ug/l)	MW-061 5/15/2008 (ug/l)	MW-061 8/4/2008 (ug/l)	MW-061 11/3/2008 (ug/l)	MW-061 2/23/2009 (ug/l)	MW-061 8/11/2009 (ug/l)	MW-061 2/4/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	22.5 B	29.5 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.3 B
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	34.1 B	NA	39.1 B	40.2 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	91.8 BN	NA	99.2 B	74.6 B
Cadmium	5 ST	7440-43-9	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U	0.35 U	0.26 U	0.34 U
Calcium	-	7440-70-2	22,800	20,600	17,600	20,800	18,300	16,000	17,100	14,600
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.41 U	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	1.2 B	0.67 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	1.2 B	1.2 B
Copper	200 ST	7440-50-8	NA	NA	NA	NA	10.9 B	NA	11.8 B	14.2 B
Iron	300 ST	7439-89-6	660	406	1,550	124	146	20.0 B	1,960	875 J*
Lead	25 ST	7439-92-1	1.8 JB	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	7.0	1.8 U
Magnesium	35,000 GV	7439-95-4	1,940 B	1,870 B	1,680 B	2,120 B	1,850 B	1,610 B	1,580 B	1,560 B
Manganese	300 ST	7439-96-5	190	224	172	198	198	180	202	182
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.16 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	1.4 U
Potassium	-	7440-09-7	7,120 J	4,010 B	3,400 B	4,120 B	4,470 B	3,760 B	4,020 B	3,520 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 UN	NA	5.3 U	3.1 B
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	18,000	16,900	13,600	14,500	17,000	13,800	14,800	12,700
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	5.9 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	8.0 B	NA	19.7 B	22.8
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	850	630	1,702	322	344	200	222	1,057

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class G/A Groundwater Standards/ Guidance Values	CAS #	MW-06S 10/28/1997 (ug/l)	MW-06S 12/5/2000 (ug/l)	MW-06S 2/17/2001 (ug/l)	MW-06S 8/21/2002 (ug/l)	MW-06S 11/20/2002 (ug/l)	MW-06S 3/5/2003 (ug/l)	MW-06S 6/5/2003 (ug/l)	MW-06S 8/22/2003 (ug/l)
Aluminum	-	7429-90-5	96.2	45.5 B	12.1	NA	143 B	NA	NA	77.2 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.9 B	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	9.6	3.2 B	8	NA	5.2 B	NA	NA	6.0 B
Barium	1,000 ST	7440-39-3	306	121 B	101	NA	121 B	NA	NA	219
Beryllium	3 GV	7440-41-7	0.1	0.1 U	0.1 U	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	162	183	NA	167	NA	NA	362
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.17 B	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	131,000	64,500	53,100	61,000	59,500	571,000	62,400	114,000
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	1.3	3.5 U	0.6 U	NA	1.9 B	NA	NA	1.8 B
Cobalt	-	7440-48-4	2.2	0.9 U	1.7 U	NA	2.9 B	NA	NA	5.0 B
Copper	200 ST	7440-50-8	0.7 U	1.5 U	1.5 U	NA	2.9 B	NA	NA	2.9 B
Iron	300 ST	7439-89-6	58,700	48,000	40,000	37,700	31,900	25,400	29,000	46,700
Lead	25 ST	7439-92-1	1.0 U	1.4 B	1.9	1.3 B	1.4 U	1.5 U	1.5 U	0.86 B
Magnesium	35,000 GV	7439-95-4	16,400	6,280	4,680	5,550	5,080	5,480	6,040	12,300
Manganese	300 ST	7439-96-5	837	543	430	804	1,050	930	1,790	2,570
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.1 U
Nickel	100 ST	7440-02-0	1.3 U	1.9 U	1.4 U	NA	2.9 B	NA	NA	4.8 B
Potassium	-	7440-09-7	18,200	8250	8050	7,460	6,980	7,490	8,980	10,900
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	0.63 B	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	18,900	12,800	13,200	14,900	13,500	10,300	13,900	19,100
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U	NA	2 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	14.2	2.2 U	3.6 U	NA	6.1 B	NA	NA	67.6
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	59,537	48,543	40,430	38,504	37,950	26,330	30,790	49,270

NOTES:

J. Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-06S 11/11/2003 (ug/l)	MW-06S 2/27/2004 (ug/l)	MW-06S 5/24/2004 (ug/l)	MW-06S 8/20/2004 (ug/l)	MW-06S 11/9/2004 (ug/l)	MW-06S 3/1/2005 (ug/l)	MW-06S 5/25/2005 (ug/l)	MW-06S 8/25/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	34.7 B	NA	NA	69.1 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	1.6 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	6.4 B	NA	NA	7.3 B	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	125 B	NA	NA	137 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.1 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	279 B	NA	NA	203	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.20 U	0.61 B	0.30 U	0.57 B	1.1 B	0.65 U	0.65 U
Calcium	-	7440-70-2	78,800	96,000	69,000	107,000	63,700	58,500	71,580	96,900
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	1.2 B	NA	NA	0.63 U	NA	NA
Cobalt	-	7440-48-4	NA	NA	3 B	NA	NA	2.3 B	NA	NA
Copper	200 ST	7440-50-8	NA	NA	0.9 U	NA	NA	1.1 U	NA	NA
Iron	300 ST	7439-89-6	26,500	43,900	20,700	52,700	37,500	34,800	10,120	37,800
Lead	25 ST	7439-92-1	1.1 U	1.6 U	0.7 U	1.5 B	1.1 U	1.1 U	1.9 B	1.7 U
Magnesium	35,000 GV	7439-95-4	8,330	10,800	9,770	12,800	6,250	6,490	11,390	11,800
Manganese	300 ST	7439-96-5	2,250	3,190	1,350	1,230	1,050	808	213	1,210
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	1.6 B	NA	NA	1.5 B	NA	NA
Potassium	-	7440-09-7	9,660	13,400	13,200	15,100	11,200	11,800	15,740	11,800
Selenium	10 ST	7782-49-2	NA	NA	1.8 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.84 B	NA	NA
Sodium	20,000 ST	7440-23-5	20,400	17,700	10,400	20,800	20,300	21,500	8,140	23,100
Thallium	0.5 GV	7440-28-0	NA	NA	1.9 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	8.4 B	NA	NA	49.9	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	28,750	47,090	22,050	53,930	38,550	35,608	10,333	39,010

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-06S 11/29/2005 (ug/l)	MW-06S 2/28/2006 (ug/l)	MW-06S 5/22/2006 (ug/l)	MW-06S 8/9/2006 (ug/l)	MW-06S 12/17/2006 (ug/l)	MW-06S 2/22/2007 (ug/l)	MW-06S 5/24/2007 (ug/l)	MW-06S 8/10/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	32.6 B	218	747	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	8.0 B	6.1 B	4.6 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	256	189 B	231	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.70 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	408 B	281 B	304	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.32 B	0.12 U	0.34 U	0.28 U	0.91 B	0.16 U	0.16 U
Calcium	-	7440-70-2	87,400	99,700	140,000	128,000	100,000	66,800	78,000	49,200
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	2.0 B	1.8 B	4.9 B	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 U	1.2 B	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	1.6 B	5.3 B	0.44 U	NA
Iron	300 ST	7439-89-6	41,700	35,600	35,400	37,400	40,900	34,800	49,600	28,000
Lead	25 ST	7439-92-1	4.6	1.3 U	1.1 U	2.4 B	1.5 U	1.5 U	1.1 U	1.1 U
Magnesium	35,000 GV	7439-95-4	10,100	13,000	18,200	15,900	13,900	8,800	10,100	5,770
Manganese	300 ST	7439-96-5	729	671	1,160	1,150	871	586	678	480
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	1.8 U	3.0 B	NA
Potassium	-	7440-09-7	12,100	15,600	21,900	17,800	16,700	13,100	12,100	8,180
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.51 B	0.38 U	0.74 B	NA
Sodium	20,000 ST	7440-23-5	22,900	23,500	25,700	20,000	20,100	18,000	21,500	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	4.9 B	2.2 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	3.5 B	6.7 B	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	75.7	U*	U*	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	42,429	36,271	36,560	38,550	41,771	35,386	50,278	28,480

NOTES:

J. Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U* Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B. Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST. Standard

GV. Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-06S 11/9/2007 (ug/l)	MW-06S 2/11/2008 (ug/l)	MW-06S 5/15/2008 (ug/l)	MW-06S 8/4/2008 (ug/l)	MW-06S 11/3/2008 (ug/l)	MW-06S 2/23/2009 (ug/l)	MW-06S 8/11/2009 (ug/l)	MW-06S 2/4/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	157 B	NA	165 B	40.5 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	3.7 B	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	6.8 B	NA	35.0 J*	6.3 B
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	320	NA	261	246
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	273 BN	NA	184	162
Cadmium	5 ST	7440-43-9	0.32 U	1.4 B	0.27 U	0.67 B	1.0 B	0.35 U	1.1 B	0.34 U
Calcium	-	7440-70-2	78,900	91,000	77,600	64,000	97,600	79,700	68,500	58,500
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	1.9 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	2.3 B	2.3 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	1.7 B	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	7.4 B	NA	0.62 U	0.83 U
Iron	300 ST	7439-89-6	51,100	53,000	51,200	42,700	65,100	51,600	93,800 J*	50,600 J*
Lead	25 ST	7439-92-1	1.4 UJ	1.4 U	2.3 U	2.3	1.3 U	1.3 U	13.8	2.5 B
Magnesium	35,000 GV	7439-95-4	10,200	10,500	8,810	6,950	10,700	8,570	6,440	5,920
Manganese	300 ST	7439-96-5	609	1,140	716	790	668	461	491	538
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	2.5 B
Potassium	-	7440-09-7	11,200 J	10,100	10,500	8,880	12,200	9,410	8,210	9,650
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 UN	NA	5.3 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	20,000	24,000	27,600	24,600	31,600	23,800	18,700	16,300
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	7.2 B	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	3.5 B	NA	5.9 B	4.6 B
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	8.0 B	NA	23.0	11.8 B
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	51,709	54,140	51,916	43,490	65,768	52,061	94,291	51,138

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-071 10/28/1997 (ug/l)	MW-071 12/1/2000 (ug/l)	MW-071 1/31/2001 (ug/l)	MW-071 8/21/2002 (ug/l)	MW-071 11/20/2002 (ug/l)	MW-071 3/5/2003 (ug/l)	MW-071 6/3/2003 (ug/l)	MW-071 8/22/2003 (ug/l)
Aluminum	-	7429-90-5	90.1	16 B	23.6	NA	37.1 B	NA	NA	13.9
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	32.2	39.6 B	29.3	NA	15.4 B	NA	NA	21.6 B
Beryllium	3 GV	7440-41-7	0.1 U	0.1 U	0.1 U	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	33 B	45.4	NA	30.1 B	NA	NA	38.1 B
Cadmium	5 ST	7440-43-9	0.47	0.4 U	0.2 U	0.29 B	0.5 U	0.12 B	0.10 U	0.30 U
Calcium	-	7440-70-2	8,890	20,000	14,700	9,820	7,360	8,670	8,420	8,160
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.8	3.5 U	0.6 U	NA	0.8 U	NA	NA	0.70 U
Cobalt	-	7440-48-4	2.3	0.9 U	1.7 U	NA	1 U	NA	NA	2.1 U
Copper	200 ST	7440-50-8	1.6	1.5 U	1.5 U	NA	3.9 B	NA	NA	1.3 B
Iron	300 ST	7439-89-6	396	26.2 B	35.2	350	172	53.9 B	41.4 B	45.0 B
Lead	25 ST	7439-92-1	2.8	1.4 U	1.1 U	1.6 B	1.5 B	1.5 U	1.5 U	0.80 U
Magnesium	35,000 GV	7439-95-4	1,300	4,310 B	3,080	1,630 B	1,150 B	1,470	1,410 B	1,060 B
Manganese	300 ST	7439-96-5	519	6,510	5,140	2,620	1,390	2,340	3,370	2,210
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	1.8	1.9 U	1.4 U	NA	1.1 U	NA	NA	1.5 U
Potassium	-	7440-09-7	3,840	2,590 B	2,460	2,330 B	2,000 B	2,020 B	2,580 B	2,100 B
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.8	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	1 B	1.6 U	NA	1 U	NA	NA	1.0 U
Sodium	20,000 ST	7440-23-5	6,950	22,300	19,600	10,700	7,960	9,570	21,100	10,200
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U	NA	0.6 U	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	51.7	3.8 B	3.6 U	NA	27.9	NA	NA	8.4 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	915	6,536.2	5,175.2	2,970	1,562	2,393.9	3,361.4	2,255

NOTES:

J. Estimated due to data validation criteria.

K. Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B. Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-071 11/11/2003 (ug/l)	MW-071 2/27/2004 (ug/l)	MW-071 5/20/2004 (ug/l)	MW-071 8/20/2004 (ug/l)	MW-071 11/9/2004 (ug/l)	MW-071 2/28/2005 (ug/l)	MW-071 5/27/2005 (ug/l)	MW-071 8/24/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	16.3 U	NA	NA	77.4 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	34.3 B	NA	NA	29.3 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.2 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	28.9 B	NA	NA	41.6 B	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.36 B	0.3 U	0.30 U	0.24 B	0.26 B	0.37 U	0.65 U
Calcium	-	7440-70-2	7,020	12,400	13,300	10,800	12,200	12,600	13,900	17,300
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	1.2 B	NA	NA	2.5 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	1.5 U	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	4.2 B	NA	NA	1.4 B	NA	NA
Iron	300 ST	7439-89-6	172	55.0 B	65.2 B	78.6 B	85.5 B	68.8 B	51.6 B	136
Lead	25 ST	7439-92-1	1.1 U	1.6 U	1.2 U	1.2 U	1.3 B	1.1 B	1.2 U	2.2 B
Magnesium	35,000 GV	7439-95-4	1,290 B	1,960 B	2,150 B	1,660 B	1,940 B	2,040 B	2,310 B	2,340 B
Manganese	300 ST	7439-96-5	1,210	4,770	5,700	4,490	5,050	4,800	4,700	3,730
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	1.6 U	NA	NA	1.2 U	NA	NA
Potassium	-	7440-09-7	1,730 B	2,600 B	2,450 B	3,470 B	3,100 B	2,790 B	2,660 B	2,080 B
Selenium	10 ST	7782-49-2	NA	NA	2.1 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 B	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	7,950	13,200	15,700	18,200	16,500	16,600	16,500	15,700
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	20.4 B	NA	NA	47.7	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	1,382	4,825	5,765.2	4,568.6	5,135.5	4,868.8	4,751.6	3,866

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-071 11/29/2005 (ug/l)	MW-071 2/28/2006 (ug/l)	MW-071 5/22/2006 (ug/l)	MW-071 8/10/2006 (ug/l)	MW-071 11/28/2006 (ug/l)	MW-071 2/22/2007 (ug/l)	MW-071 5/24/2007 (ug/l)	MW-071 8/10/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	10.2 U	15.6 B	72.2 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 U	2.0 U	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	32.6 B	31.3 B	53.0 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.54 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	33.4 B	39.1 B	41.0 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.53 B	0.34 U	0.28 U	0.28 U	0.16 U	0.28 B
Calcium	-	7440-70-2	17,700	13,600	43,000	30,100	22,300	19,000	18,100	18,600
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	0.33 U	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	1.3 U	1.3 U	0.40 U	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	2.2 B	5.1 B	0.44 U	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	46.7 B	81.0 B	74.6 B	47.7 B
Iron	300 ST	7439-89-6	72.3 B	87.0 B	41.3 B	24.3 B	1.5 U	1.5 U	1.1 U	1.1 U
Lead	25 ST	7439-92-1	3.1	1.3 U	1.1 U	1.9 U	2.480 B	2.140 B	2.120 B	2,500 B
Magnesium	35,000 GV	7439-95-4	2,490 B	2,130 B	6,680	3,820 B	1,010	142	310	486
Manganese	300 ST	7439-96-5	2,650	2,940	6,600	2,890	0.1U	0.10 U	NA	NA
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	1.8 U	1.8 U	0.78 U	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Potassium	-	7440-09-7	2,510 B	4,210 B	5,440	3,830 B	2,770 B	4,330 B	4,920 B	4,530 JB
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	0.38 U	0.38 U	0.90 B	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	21,200	20,600	31,300	U*
Sodium	20,000 ST	7440-23-5	15,200	14,000	25,500	21,200	2.9 U	3.0 B	3.1 B	NA
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	45.5	U*	U*	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	223.0	384.6	533.7	NA
Iron + Manganese	500 ST*	-	2,722.3	3,027	6,641.3	2,936.7	1,034.3	223.0	384.6	533.7

NOTES:

J Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-071 11/9/2007 (ug/l)	MW-071 2/11/2008 (ug/l)	MW-071 5/19/2008 (ug/l)	MW-071 8/5/2008 (ug/l)	MW-071 11/5/2008 (ug/l)	MW-071 2/24/2009 (ug/l)	MW-071 8/14/2009 (ug/l)	MW-071 2/8/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	40.6 B	28.8 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	36.3 B	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	33.5 B	NA	75.0 B	57.5 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	33.7 B	NA	51.9 B	23.2 B
Cadmium	5 ST	7440-43-9	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U	0.35 U	0.40 B	0.34 U
Calcium	-	7440-70-2	73,600 J	18,700	20,900	21,600	28,400	19,800	24,800	14,000
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.52 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	5.3 B	0.58 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	0.76 U	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	1.0 B	NA	0.62 U	2.4 B
Iron	300 ST	7439-89-6	24,600	24.2 U	13.2 B	30.8 B	7.6 B	9.4 B	26.6 B	62.6 B
Lead	25 ST	7439-92-1	1.4 U	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	2.1 U	2.1 B
Magnesium	35,000 GV	7439-95-4	11,200 J	2,350 B	2,230 B	2,070 B	1,730 B	1,050 B	1,760 B	1,550 B
Manganese	300 ST	7439-96-5	5,920 J	663	434	428	282	212	347	414
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	3.0 B	1.4 U
Potassium	-	7440-09-7	12,500	3,770 B	2,930 B	3,330 B	3,460 B	6,790	8,840	5630 J*
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	95.7	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.34 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	29,100 J	23,300	23,400	27,500	26,700	20,900	35,000	23,200
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.9 U	NA	20.0	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	7.8 B	NA	7.6 B	14.9 B
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	30,520	687	447.2	458.8	289.6	221.4	356.4	476.6

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed.

B. Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-11D 10/31/1997 (ug/l)	MW-11D 12/13/2000 (ug/l)	MW-11D 2/7/2001 (ug/l)	MW-11D 8/22/2002 (ug/l)	MW-11D 11/21/2002 (ug/l)	MW-11D 3/6/2003 (ug/l)	MW-11D 6/4/2003 (ug/l)	MW-11D 8/21/2003 (ug/l)
Aluminum	-	7429-90-5	473	578	581	NA	717	NA	NA	629
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	27.8	34	31.9	NA	37.1 B	NA	NA	38.4 B
Beryllium	3 GV	7440-41-7	0.1 U	0.22	0.13	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	42.2	32.6	NA	311	NA	NA	144
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.22	0.28 B	0.5 U	0.10 U	0.11 B	0.30 U
Calcium	-	7440-70-2	7,300	4,290	5,130	7,280	6,940	5,900	6,120	6,990
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.43	3.5 U	1.6	NA	1.6 B	NA	NA	1.3 B
Cobalt	-	7440-48-4	1.1 U	0.9 U	1.7 U	NA	1 U	NA	NA	2.1 U
Copper	200 ST	7440-50-8	0.7 U	2.3	1.5 U	NA	1.9 B	NA	NA	1.1 U
Iron	300 ST	7439-89-6	153	16.7	30.6	566	261	155	59.9 B	43.5 B
Lead	25 ST	7439-92-1	1 U	1.4 U	1.1 U	2.0 B	1.4 B	1.5 U	1.5 U	0.8 U
Magnesium	35,000 GV	7439-93-4	1,330	1,340	1,440	1,480 B	1,810 B	1,580 B	1,650 B	1,940 B
Manganese	300 ST	7439-96-5	74.6	76.7	83.5	398	188	143	144	178
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	2.1	5.3	5.8	NA	12 B	NA	NA	12.4 B
Potassium	-	7440-09-7	10,000	6,950	1,720	2,530 B	5,190	5,200	6,460	5,530
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	2	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	1.2	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	8,050	7,840	7,610	6,010	9,640	9,940	10,900	10,500
Thallium	0.5 GV	7440-28-0	2.7	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.4	0.7 U	1.7 U	NA	0.6 U	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	19	2.8	13.6	NA	21	NA	NA	6.0 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	227.6	93.4	114.1	964	449	298	203.9	221.5

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-11D 11/13/2003 (ug/l)	MW-11D 3/1/2004 (ug/l)	MW-11D 5/21/2004 (ug/l)	MW-11D 8/24/2004 (ug/l)	MW-11D 11/11/2004 (ug/l)	MW-11D 2/24/2005 (ug/l)	MW-11D 5/26/2005 (ug/l)	MW-11D 8/25/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	1250	NA	NA	1420	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	47.4 B	NA	NA	55.2 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.22 B	NA	NA	0.29 B	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	61 B	NA	NA	65.4 B	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.22 B	0.3 U	0.57 B	0.23 U	2.8 B	0.65 U	0.65 U
Calcium	-	7440-70-2	7,920	8,360	11,800	14,100	8,100	11,200	8,680	7,570
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	2.7 B	NA	NA	2.6 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	1.5 U	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	3.3 B	NA	NA	2.4 B	NA	NA
Iron	300 ST	7439-89-6	162	38.0 B	556	1190	97.7 B	511	268	145
Lead	25 ST	7439-92-1	1.2 B	1.6 U	4.2	8.8	1.1 U	3.4	2.0 B	1.7 U
Magnesium	35,000 GV	7439-95-4	2,140 B	2,330 B	2,080 B	2,650 B	2,050 B	2,700 B	2,150 B	1,940 B
Manganese	300 ST	7439-96-5	171	227	233	218	220	290	269	261
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	14 B	NA	NA	17.1 B	NA	NA
Potassium	-	7440-09-7	7,020	7,170	6,450	8,810	8,390	6,750	5,690	4,900 B
Selenium	10 ST	7782-49-2	NA	NA	2.1 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.76 B	NA	NA
Sodium	20,000 ST	7440-23-5	11,000	13,300	10,600	11,700	13,000	15,800	11,000	11,200
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	2.1 B	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	13 B	NA	NA	94	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	333	265	789	1,408	317.7	801	537	406

NOTES:

J: Estimated due to data validation criteria

 Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed.

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-11D 11/28/2005 (ug/l)	MW-11D 2/27/2006 (ug/l)	MW-11D 5/19/2006 (ug/l)	MW-11D 8/11/2006 (ug/l)	MW-11D 11/29/2006 (ug/l)	MW-11D 2/28/2007 (ug/l)	MW-11D 6/1/2007 (ug/l)	MW-11D 8/17/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	2.420	1.090	2.130	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	2.4 B	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 U	3.8 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	56.0 B	45.8 B	55.6 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.20 B	1.0 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	36.6 B	37.9 B	45.4 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	1.8 B	0.40 B	0.34 U	0.28 U	0.32 B	0.95 B	0.51 B
Calcium	-	7440-70-2	8,870	16,700	9,320	8,670	10,900	13,500	18,500	13,500
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	2.0 B	1.5 B	3.8 B	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 U	1.2 B	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	4.4 B	1.6 B	3.7 B	NA
Iron	300 ST	7439-89-6	177	1,600	300	242	1,600	128	1,640	56.0 B
Lead	25 ST	7439-92-1	1.6 B	15.1	1.9 U	2.3 B	7.1	1.5 U	8.6	1.7 U
Magnesium	35,000 GV	7439-95-4	2,370 B	3,400 B	2,290 B	2,150 B	3,030 B	3,490 B	3,940 B	3,830 B
Manganese	300 ST	7439-96-5	326	372	360	364	543	662	820	483
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	21.1 B	21.2 B	27.1 B	NA
Potassium	-	7440-09-7	5,580	6,330	5,340	5,880	4,850 B	4,260 B	3,850 B	2,860 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	12,600	13,500	14,300	13,700	13,200	14,600	14,900	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	2.9 U	2.5 B	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	3.2 B	1.4 U	5.1 B	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	51.4	U*	37.3	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	503	1,972	660	606	2,143	790	2,460	539.0

NOTES:

J. Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-11D 11/14/2007 (ug/l)	MW-11D 2/12/2008 (ug/l)	MW-11D 5/14/2008 (ug/l)	MW-11D 8/6/2008 (ug/l)	MW-11D 11/5/2008 (ug/l)	MW-11D 2/25/2009 (ug/l)	MW-11D 8/13/2009 (ug/l)	MW-11D 2/5/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	659	NA	494	16700
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	10.5
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	36.5 B	NA	20.0 B	120 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.21 B	NA	0.20 B	0.72 B
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	64.9 B	NA	57.8 B	42.6 B
Cadmium	5 ST	7440-43-9	0.41 B	0.45 B	0.27 U	0.50 B	0.35 U	0.35 U	0.26 U	0.82 B
Calcium	-	7440-70-2	11,300 J	9,390	7,730	7,600	7,350	6,450	8,020	43,500
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	1.6 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	1.5 B	38.5
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	0.76 U	9.9 B
Copper	200 ST	7440-50-8	NA	NA	NA	NA	0.88 U	NA	0.80 B	42.8
Iron	300 ST	7439-89-6	956	264	116	107	27.7 B	42.0 B	128	19006 J*
Lead	25 ST	7439-92-1	4.3	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	21.1	65.6
Magnesium	35,000 GV	7439-95-4	3,390 JB	2,740 B	2,510 B	2,730 B	2,530 B	2,130 B	1,900	6950
Manganese	300 ST	7439-96-5	462 J	328	240	240	242	180	118	375
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	16.4 B	NA	9.2 B	23.3 B
Potassium	-	7440-09-7	3,450	2,550 B	2,260 B	2,600 B	2,260 B	2,090 B	2,440 B	14,900
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	5.3 U	3.0 B
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	17,400 J	17,800	17,700	17,800	18,300	16,700	35,000	39,400
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.9 U	NA	20.0	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	39.8 B
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	11.2 B	NA	7.6 B	209
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	1,418	592	356	347	270	222	160	19,375

NOTES:

J. Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U. Analyzed for but not detected, value shown is instrument detection limit.

NA. Not analyzed

B. Concentration is above instrument detection limit but below contract required detection

U*. Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-111 10/31/1997 (ug/l)	MW-111 12/13/2000 (ug/l)	MW-111 2/7/2001 (ug/l)	MW-111 8/22/2002 (ug/l)	MW-111 11/21/2002 (ug/l)	MW-111 3/6/2003 (ug/l)	MW-111 6/4/2003 (ug/l)	MW-111 8/21/2003 (ug/l)
Aluminum	-	7429-90-5	113	22.3	11.8 U	NA	32.8 B	NA	NA	23.8 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	22.2	13.1	10.3	NA	12.3 B	NA	NA	46.1 B
Beryllium	3 GV	7440-41-7	0.1 U	0.1 U	0.1 U	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	98.2	84	NA	207	NA	NA	124
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.23	0.20 B	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	10,200	9,570	9,150	8,810	15,000	15,400	16,400	77,300
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.4 U	3.5 U	0.6 U	NA	2.2 B	NA	NA	177
Cobalt	-	7440-48-4	4.7	4	3.2	NA	5 B	NA	NA	2.1 U
Copper	200 ST	7440-50-8	3.1	2.4	1.5 U	NA	2.8 B	NA	NA	7.7 B
Iron	300 ST	7439-89-6	191	24.1	10.2	313	130	63.3 B	58 B	908
Lead	25 ST	7439-92-1	1.7 U	1.4 U	1.1 U	0.80 U	1.4 U	1.5 U	1.5 U	0.80 U
Magnesium	35,000 GV	7439-95-4	6.510	2,670	2,670	2,620 B	3,740 B	3,120 B	3,180 B	6750
Manganese	300 ST	7439-96-5	245	1,590	1,340	394	327	1,000	1,500	248
Mercury	0.7 ST	7439-97-6	0.3 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	4.3	3.5	2.5	NA	8.4 B	NA	NA	14.7 B
Potassium	-	7440-09-7	3,870	2,690	2,270	1,640 B	1,740 B	1,830 B	2,050 B	14700
Selenium	10 ST	7782-49-2	8.4 U	1.7 U	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	2.8 U	1.7	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	11,100	13,200	10,400	6,680	9,510	11,400	12,600	78,800
Thallium	0.5 GV	7440-28-0	2.3 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	2.6 U	0.95	1.7 U	NA	0.6 U	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	100	5.4	4.1	NA	51.4	NA	NA	8.6
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	436	1,614.1	1,350.2	707	457	1,063.3	1,558	1,156

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-111 11/13/2003 (ug/l)	MW-111 3/1/2004 (ug/l)	MW-111 5/21/2004 (ug/l)	MW-111 8/24/2004 (ug/l)	MW-111 11/11/2004 (ug/l)	MW-111 2/24/2005 (ug/l)	MW-111 5/26/2005 (ug/l)	MW-111 8/25/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	16.3 U	NA	NA	384	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	8.8 B	NA	NA	9.8 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.2 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	148 B	NA	NA	327	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.29 B	0.3 U	0.23 B	0.26 B	0.78 B	0.65 U	0.65 U
Calcium	-	7440-70-2	7,960	16,400	14,000	12,000	12,400	15,000	15,200	10,900
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.6 U	NA	NA	1.9 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	25.9 B	NA	NA	26.9 B	NA	NA
Copper	200 ST	7440-50-8	NA	NA	3.8 B	NA	NA	3.1 B	NA	NA
Iron	300 ST	7439-89-6	56.5 B	31.2 B	29.7 B	26.2 B	30 B	410	25.6 B	53.4 B
Lead	25 ST	7439-92-1	1.2 B	1.6 U	1.2 U	0.70 U	1.1 U	2.2 B	2.4 B	1.7 U
Magnesium	35,000 GV	7439-95-4	1,400 B	2,840 B	2,480 B	2,300 B	2,250 B	2,550 B	2,860 B	2,140 B
Manganese	300 ST	7439-96-5	247	1,630	1,350	1,430	1,920	355	2,360	1,780
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	33.8 B	NA	NA	15.4 B	NA	NA
Potassium	-	7440-09-7	1,420 B	1,690 B	1,300 B	1,720 B	1,510 B	1,490 B	1,500 B	1,160 B
Selenium	10 ST	7782-49-2	NA	NA	2.6 B	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.8 B	NA	NA
Sodium	20,000 ST	7440-23-5	13,900	14,400	6,370	7,180	8,760	9,660	12,300	11,900
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	4.7 B	NA	NA	76.9	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	303.5	1,661.2	1,379.7	1,456.2	1,950	765	2,385.6	1,833.4

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed.

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-111 11/28/2005 (ug/l)	MW-111 2/27/2006 (ug/l)	MW-111 5/19/2006 (ug/l)	MW-111 8/11/2006 (ug/l)	MW-111 11/29/2006 (ug/l)	MW-111 2/28/2007 (ug/l)	MW-111 6/1/2007 (ug/l)	MW-111 8/16/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	45.0 B	35.3 B	50.8 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	2.9 B	2.0 U	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	7.1 B	6.4 U	5.8 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.32 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	53.8 B	55.8 B	53.7 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	0.75 B	0.16 U	0.99 B
Calcium	-	7440-70-2	9,880	13,100	8,580	6,530	4,950 B	3,660 B	5,350	5,370
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.50 U	0.57 B	0.33 U	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 U	0.40 U	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.2 B	1.5 B	0.44 U	NA
Iron	300 ST	7439-89-6	12.6 B	28.2 B	22.1 B	28.6 B	140	69.0 B	18.8 B	18.2 B
Lead	25 ST	7439-92-1	1.6 U	1.3 U	1.9 U	1.9 U	1.5 U	1.5 U	1.5 B	2.7 B
Magnesium	35,000 GV	7439-95-4	1,960 B	2,780 B	1,590 B	1,190 B	996 B	752 B	1,050 B	1,090 B
Manganese	300 ST	7439-96-5	1,700	2,560	1,870	1,460	971	138	973	286
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	1.8 U	0.78 U	NA
Potassium	-	7440-09-7	1,170 B	1,910 B	1,350 B	2,100 B	1,230 B	1,470 B	1,420 B	1,400 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	10,400	14,500	13,700	10,500	8,020	8,330	6,180	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	3.9 B	3.5 B	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	177	U*	9.3 B	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	1,712.6	2,588.2	1,892.1	1,488.6	1,111	207	991.8	304.2

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-111 11/14/2007 (ug/l)	MW-111 2/12/2008 (ug/l)	MW-111 5/14/2008 (ug/l)	MW-111 8/6/2008 (ug/l)	MW-111 11/5/2008 (ug/l)	MW-111 2/25/2009 (ug/l)	MW-111 8/13/2009 (ug/l)	MW-111 2/5/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	70.4 B	86.2 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	7.6 B	NA	2.9 U	6.2 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	28.2 B	NA	4.3 U	22.7 B
Cadmium	5 ST	7440-43-9	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U	0.35 U	0.26 U	0.39 B
Calcium	-	7440-70-2	5,980 J	5,370	9,040	5,030	5,030	4,340 B	49.0 B	3,260 B
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.80 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	0.49 U	0.88 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	0.76 U	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	0.65 U	NA	0.90 B	2.0 B
Iron	300 ST	7439-89-6	25.1	24.2 U	280	6.6 U	10 B	13.7 B	10.9 B	125 J*
Lead	25 ST	7439-92-1	1.4	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	2.1 U	1.8 U
Magnesium	35,000 GV	7439-95-4	1,420 J	1,260 B	2,440 B	1,450 B	1,700 B	1,390 B	43 U	895 B
Manganese	300 ST	7439-96-5	100 J	47.0	92.2	28.3	11.8 B	8.6 B	0.40 B	1.1 U
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	1.9 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	1.6 B
Potassium	-	7440-09-7	1,410	1,410 B	1,970 B	1,890 B	1,600 B	1,420 B	57 U	1,480 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	0.54 U	NA	4.6 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	1.9 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	5,510 J	5,430	7,860	6,770	5,500	4,960 B	55 U	4,510 B
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	0.74 U	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	6.0 B	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	0.13 U	NA	6.7 U	16.8 B
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10 U	10.0 U
Iron + Manganese	500 ST*	-	125.1	71.2	372.2	34.9	21.8	22.3	11.3	236

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-11S 10/31/1997 (ug/l)	MW-11S 12/13/2000 (ug/l)	MW-11S 2/7/2001 (ug/l)	MW-11S 8/22/2002 (ug/l)	MW-11S 11/21/2002 (ug/l)	MW-11S 3/6/2003 (ug/l)	MW-11S 6/4/2003 (ug/l)	MW-11S 8/21/2003 (ug/l)
Aluminum	-	7429-90-5	703	31.7	47.7	NA	127 B	NA	NA	17.4 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	30.5	27.3	24.1	NA	28.3 B	NA	NA	8.8 B
Beryllium	3 GV	7440-41-7	0.1 U	0.1 U	0.1 U	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	635	630	NA	206	NA	NA	160
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.10 U	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	39,100	58,600	53,800	46,600	51,800	51,500	78,300	9,900
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.73	3.5 U	9.8	NA	38.9	NA	NA	0.70 U
Cobalt	-	7440-48-4	2.1	1.4	1.8	NA	1.8 B	NA	NA	18.2 B
Copper	200 ST	7440-50-8	3.2	3.2	3	NA	2.9 B	NA	NA	1.8 B
Iron	300 ST	7439-89-6	739	45.6	65.1	4,820	575	271	193	107
Lead	25 ST	7439-92-1	1 U	1.4 U	1.1 U	0.80 U	1.4 U	1.5 U	1.5 B	0.80 U
Magnesium	35,000 GV	7439-95-4	4,000	6,250	5,770	4,090 B	5,250	5,880	7,590	1750 B
Manganese	300 ST	7439-96-5	1,830	5,290	4,340	1,230	1,270	843	541	624
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	2.6	3.1	3.3	NA	3.9 B	NA	NA	39.3 B
Potassium	-	7440-09-7	8,620	9,070	7,980	6,970	6,570	9,540	15,100	1390 B
Selenium	10 ST	7782-49-2	2.8 U	3	3	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	3.6	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	43,700	37,900	26,900	15,000	16,700	20,300	54,200	13,800
Thallium	0.5 GV	7440-28-0	3.2	2.3 U	2.8 U	NA	4.2 U	NA	NA	3.2 B
Vanadium	-	7440-62-2	1.8	0.98	1.7 U	NA	0.97 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	12.7	2.2 U	3.6 U	NA	15.2 B	NA	NA	6.6 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	2,559	5,335.6	4,405.1	6,050	1,845	1,114	734	731

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-11S 11/13/2003 (ug/l)	MW-11S 3/1/2004 (ug/l)	MW-11S 5/21/2004 (ug/l)	MW-11S 8/24/2004 (ug/l)	MW-11S 11/11/2004 (ug/l)	MW-11S 2/24/2005 (ug/l)	MW-11S 5/26/2005 (ug/l)	MW-11S 8/25/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	39.9 B	NA	NA	153 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	31.4 B	NA	NA	28.8 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.2 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	176 B	NA	NA	324	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.20 U	0.3 U	0.20 U	0.23 U	0.23 B	0.65 U	0.65 U
Calcium	-	7440-70-2	66,600	94,900	53,300	63,600	72,800	73,000	63,500	58,000
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	64.7	NA	NA	36.5	NA	NA
Cobalt	-	7440-48-4	NA	NA	1.8 B	NA	NA	2.8 B	NA	NA
Copper	200 ST	7440-50-8	NA	NA	8 B	NA	NA	5.9 B	NA	NA
Iron	300 ST	7439-89-6	636	1,310	772	40.4 B	67.9 B	708	392	160
Lead	25 ST	7439-92-1	1.1 U	1.6 U	1.2 U	0.70 U	1.1 U	1.1 U	3.4	1.7 U
Magnesium	35,000 GV	7439-95-4	5,100	7,510	5,430	5,180	5,330	6,110	5,590	4,930 B
Manganese	300 ST	7439-96-5	207	172	348	239	319	432	594	1,240
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	10.2 B	NA	NA	5.5 B	NA	NA
Potassium	-	7440-09-7	15,100	13,700	12,000	15,100	13,000	12,700	9,800	9,520
Selenium	10 ST	7782-49-2	NA	NA	2.3 B	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	70,700	47,700	34,300	45,400	32,900	42,300	39,900	41,800
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	3.9 B	NA	NA	46.3	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	843	1,482	1,120	279.4	386.9	1,140	986	1,400

NOTES:

J: Estimated due to data validation criteria

U Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed.

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-IIS 11/28/2005 (ug/l)	MW-IIS 2/27/2006 (ug/l)	MW-IIS 5/19/2006 (ug/l)	MW-IIS 8/11/2006 (ug/l)	MW-IIS 11/29/2006 (ug/l)	MW-IIS 2/23/2007 (ug/l)	MW-IIS 6/1/2007 (ug/l)	MW-IIS 8/16/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	22.7 B	3.680	2.400	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	3.0 B	4.3 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	27.4 B	60.7 B	72.4 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17	0.19 B	0.46 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	86.3 B	82.4 B	83.3 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	0.28 U	0.25 B	0.32 B
Calcium	-	7440-70-2	87,000	77,600	54,800	65,900	41,500	45,000	58,600	49,800
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	1.2 B	247	46.5	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	NA	15.7 B	4.6 B	NA
Copper	200 ST	7440-50-8	37.2 B	150	85.3 B	286	3.1 B	4.950	3.210	30.3 B
Iron	300 ST	7439-89-6	1.6 U	1.3 U	1.9 U	1.9 U	1.5 U	6.4	19.6	1.7 U
Lead	25 ST	7439-92-1	8,110	7,360	5,590	6,800	5,310	6,290	7,860	4,810 B
Magnesium	35,000 GV	7439-95-4	1,290	1,970	1,800	1,720	2,710	3,830	3,950	2,990
Manganese	300 ST	7439-96-5	NA	NA	NA	NA	0.1 U	0.12 B	NA	NA
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	1.8 U	22.0 B	12.3 B	NA
Nickel	100 ST	7440-02-0	14,600	16,100	14,000	17,200	13,600	17,000	21,200	31,700
Potassium	-	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Selenium	10 ST	7440-09-7	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Silver	50 ST	7440-22-4	46,900	47,500	33,300	56,300	46,200	47,900	50,400	53,800
Sodium	20,000 ST	7440-23-5	NA	NA	NA	NA	2.9 U	2.9 U	4.9 B	NA
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.4 U	8.9 B	7.8 B	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	39.7	52.5	45.8	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Cyanide	200 ST	0057-12-5	1,327.2	2,120	1,885	2,006	2,800	8,780	7,160	3,020.3
Iron + Manganese	500 ST*	-								

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U- Analyzed for but not detected, value shown is instrument detection limit

NA- Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST Standard

GV Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-11S 11/14/2007 (ug/l)	MW-11S 2/12/2008 (ug/l)	MW-11S 5/14/2008 (ug/l)	MW-11S 8/6/2008 (ug/l)	MW-11S 11/5/2008 (ug/l)	MW-11S 2/25/2009 (ug/l)	MW-11S 8/13/2009 (ug/l)	MW-11S 2/5/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	2730	NA	52.0 B	47.6 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 B	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	57.4 B	NA	32.3 B	41.4 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.14 B	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	68.6 B	NA	55.5 B	73.9 B
Cadmium	5 ST	7440-43-9	0.32	0.32 U	0.27 U	0.27 U	0.35 U	0.35 U	0.26 U	0.34 U
Calcium	-	7440-70-2	44,000 J	45,600	55,600	58,100	46,500	43,000	44,300	60,800
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	109	NA	6.8 B	47.9
Cobalt	-	7440-48-4	NA	NA	NA	NA	3.6 B	NA	0.80 B	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	12.6 B	NA	1.9 B	3.6 B
Iron	300 ST	7439-89-6	36.0 B	111	5,540	2,260	3,440	990	111	172 J*
Lead	25 ST	7439-92-1	1.4 U	1.4 U	8.40	6.9	7.7	3.2	12.4	1.8 U
Magnesium	35,000 GV	7439-95-4	4,990 J	5,050	6,440	6,160	5,880	4,900 B	4,490 B	6,900
Manganese	300 ST	7439-96-5	3,120 J	3,020	4,070	2,910	3,070	3,270	3,250	4,450
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	7.3 B	NA	1.8 B	3.1 B
Potassium	-	7440-09-7	29,900	19,900	17,100	25,200	25,300	12,900	15,700	19,000
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	5.3 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.55 B	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	54,900 J	36,500	45,300	52,400	56,200	38,300	38,900	56,800
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.9 U	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	7.6 B	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	17.2 B	NA	12.0 B	5.0 B
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	3,156.0	3,131.0	9,610	5,170	6,510	4,260	3,361	4,622

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-12D 10/31/1997 (ug/l)	MW-12D 12/8/2000 (ug/l)	MW-12D 2/7/2001 (ug/l)	MW-12D 8/22/2002 (ug/l)	MW-12D 11/21/2002 (ug/l)	MW-12D 3/6/2003 (ug/l)	MW-12D 6/4/2003 (ug/l)	MW-12D 8/21/2003 (ug/l)
Aluminum	-	7429-90-5	288	14.9	18.6	NA	43.5 B	NA	NA	19.9 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	6.5	1.5	2.9 U	NA	3.4 B	NA	NA	2.2 B
Beryllium	3 GV	7440-41-7	0.1 U	0.1 U	0.1 U	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	29.4	25.2	NA	16.1 B	NA	NA	24.8 B
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.10 U	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	8,460	3,180	3,660	2,580 B	3,860 B	5,990	6,940	6,600
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.87	3.5 U	1	NA	2 B	NA	NA	0.70 U
Cobalt	-	7440-48-4	1.1 U	0.9 U	1.7 U	NA	1 U	NA	NA	2.1 U
Copper	200 ST	7440-50-8	2.4	1.5 U	1.5 U	NA	1.8 B	NA	NA	1.1 U
Iron	300 ST	7439-89-6	312	20.9	16.5	129	132	12.4 B	33.2 B	23.6 U
Lead	25 ST	7439-92-1	1 U	1.4 U	1.1 U	0.80 U	1.4 U	1.5 U	1.5 U	0.80 U
Magnesium	35,000 GV	7439-95-4	2,330	1,520	1,760	1,000 B	1,590 B	2,630 B	3,080 B	2,900 B
Manganese	300 ST	7439-96-5	82.5	1.8	1.4	11.6 B	4.7 B	3.9 B	1.9 B	1.3 B
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	0.1 U	NA	NA	0.10 U
Nickel	100 ST	7440-02-0	1.3 U	1.9 U	1.4 U	NA	1.5 B	NA	NA	1.5 U
Potassium	-	7440-09-7	837	554	673	552 B	438 B	551 B	833 B	481 B
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	1.4	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	8,400	8,610	9,340	6,450	6,010	5,770	6,120	5,490
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2	0.7 U	1.7 U	NA	0.60 U	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	311	2.2 U	3.6 U	NA	24.1	NA	NA	2.4 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	394.5	22.7	17.9	129	136.7	16.3	35.1	24.9

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST Standard

GV Guidance value

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-12D 11/13/2003 (ug/l)	MW-12D 3/1/2004 (ug/l)	MW-12D 5/21/2004 (ug/l)	MW-12D 8/24/2004 (ug/l)	MW-12D 11/11/2004 (ug/l)	MW-12D 2/24/2005 (ug/l)	MW-12D 5/26/2005 (ug/l)	MW-12D 8/25/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	16.3 U	NA	NA	73.7 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	4 U	NA	NA	1.7 U	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.2 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	19.4 B	NA	NA	30.6 B	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.57 B	0.3 U	0.20 U	0.23 U	0.23 U	0.65 U	0.68 B
Calcium	-	7440-70-2	5,460	4,550 B	3,540 B	3,870 B	3,910 B	3,870 B	3,050 B	2,870 B
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.89 B	NA	NA	1.1 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	1.5 U	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	2 B	NA	NA	1.1 U	NA	NA
Iron	300 ST	7439-89-6	21.9 B	58.3 B	33 B	98.1 B	4.0 B	30.8 B	20.2 B	57.3 B
Lead	25 ST	7439-92-1	1.3 B	1.6 U	1.2 U	0.70 U	1.1 U	1.1 U	1.7	2.4 B
Magnesium	35,000 GV	7439-95-4	2,340 B	1,940 B	1,530 B	1,720 B	1,660 B	1,640 B	1,250 B	1,210 B
Manganese	300 ST	7439-96-5	1.8 B	3.1 B	2.6 B	1.4 B	0.58 B	1.0 B	1.2 U	1.9 B
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	1.6 U	NA	NA	1.2 U	NA	NA
Potassium	-	7440-09-7	440 B	474 B	403 B	692 B	597 B	591 B	446 B	415 B
Selenium	10 ST	7782-49-2	NA	NA	2.1 U	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	5,090	5,530	4,890 B	5,690	6,310	6,730	5,950	6,750
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	3 B	NA	NA	56.6	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	23.7	61.4	35.6	99.5	4.58	31.8	21.4	59.2

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class G/A Groundwater Standards/ Guidance Values	CAS #	MW-12D 11/28/2005 (ug/l)	MW-12D 2/27/2006 (ug/l)	MW-12D 5/19/2006 (ug/l)	MW-12D 8/11/2006 (ug/l)	MW-12D 11/29/2006 (ug/l)	MW-12D 2/23/2007 (ug/l)	MW-12D 6/12/2007 (ug/l)	MW-12D 8/16/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	37.4 B	795	61.1 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	3.0 B	3.9 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	6.4 U	71.3 B	3.1 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.37 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	16.8 B	22.2 B	19.3 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	0.28 U	0.16 U	0.28 U
Calcium	-	7440-70-2	3,790 B	4,650 B	5,070	4,950 B	5,790	13,000	7,220	9,130
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.50 U	3.2 B	0.44 B	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 B	0.40 U	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	0.88 U	7.2 B	0.44 U	NA
Iron	300 ST	7439-89-6	59.5 B	55.0 B	67.0 B	14.2 B	66.3 B	1,170	29.1 B	9.6 B
Lead	25 ST	7439-92-1	1.6 U	1.3 B	2.6 B	1.9 U	1.5 U	12.1	1.1 U	1.7 U
Magnesium	35,000 GV	7439-95-4	1,610 B	2,110 B	2,130 B	2,170 B	2,790 B	3,830 B	3,650 B	4,160 B
Manganese	300 ST	7439-96-5	2.9 B	2.5 B	3.6 B	1.6 B	3.0 U	35.5	3.2 B	1.8 B
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.12 B	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	2.1 B	0.78 U	NA
Potassium	-	7440-09-7	513 B	736 B	559 B	1,640 B	651 B	1,100 B	740 B	810 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	7,180	7,230	7,200	6,930	6,290	7,200	6,370	7,780
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	3.5 B	5.6 B	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	2.5 B	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	40.3	63.5	8.4 B	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	62.4	57.5	69.6	15.8	66.3	1,205.5	32.3	11.4

NOTES:

J. Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-12D 11/14/2007 (ug/l)	MW-12D 2/12/2008 (ug/l)	MW-12D 5/14/2008 (ug/l)	MW-12D 8/6/2008 (ug/l)	MW-12D 11/5/2008 (ug/l)	MW-12D 2/25/2009 (ug/l)	MW-12D 8/13/2009 (ug/l)	MW-12D 2/5/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	12.5 U	101 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	4.7 B	NA	6.6 B	7.5 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	19.5 B	NA	9.5 B	19.0 B
Cadmium	5 ST	7440-43-9	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U	0.35 U	0.26 U	0.34 U
Calcium	-	7440-70-2	11,500 J	11,100	12,000	11,200	11,600	12,500	11,500	9,410
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.80 B	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	1.1 B	0.65 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	0.76 U	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	0.65 U	NA	0.90 B	2.9 B
Iron	300 ST	7439-89-6	28.8 B	24.2 U	37.4 B	6.6 U	9.2 B	12.6 B	12.4 B	139 J*
Lead	25 ST	7439-92-1	1.4 U	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	12.3	1.8 U
Magnesium	35,000 GV	7439-95-4	5,770 J	5,480	6,130	6,260	6,100	6,560	5,420	5,190
Manganese	300 ST	7439-96-5	1.9 JB	2.7 B	4.7 B	3.0 B	3.1 B	3.6 B	2.6 B	8.9 B
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	1.4 U
Potassium	-	7440-09-7	878 B	945 B	1,030 B	1,340 U	1,060 B	1,150 B	1,210 B	1,400 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	5.3 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	9,580 J	12,000	11,900	13,400	11,700	13,600	15,300	14,800
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.9 U	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	5.2 B	NA	22.3	13.7 B
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	30.7	26.9	42.1	9.6	12.3	16.2	15.0	147.9

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed.

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-121 1031/1997 (ug/l)	MW-121 12/7/2000 (ug/l)	MW-121 2/8/2001 (ug/l)	MW-121 8/22/2002 (ug/l)	MW-121 11/21/2002 (ug/l)	MW-121 3/6/2003 (ug/l)	MW-121 6/4/2003 (ug/l)	MW-121 8/21/2003 (ug/l)
Aluminum	-	7429-90-5	281	38.1 B	13.5	NA	88.5 B	NA	NA	23.4 B
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	25.1	20.2 B	12.6	NA	16.8 B	NA	NA	4.9 B
Beryllium	3 GV	7440-41-7	0.1 U	0.1 U	0.1 U	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	865	423	NA	47.6 B	NA	NA	42.4 B
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.10 U	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	13,000	13,500	9,680	4,240 B	6,480	4,390 B	6,470	4,020 B
Chromium Hexavalent	50 ST	18540-79-9	20 U	20 U	20 U	20 U	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	0.4 U	3.5 U	0.6 U	NA	2.7 B	NA	NA	0.70 U
Cobalt	-	7440-48-4	1.1 U	0.9 U	1.7 U	NA	1.2 B	NA	NA	2.1 U
Copper	200 ST	7440-50-8	1	2.4 B	1.5 U	NA	2.8 B	NA	NA	1.1 U
Iron	300 ST	7439-89-6	213	20.9 B	12.4	257	312	37.3 B	48.5 B	25.8 B
Lead	25 ST	7439-92-1	1 U	1.4 U	1.1 U	0.80 U	1.9 B	1.5 U	1.5 U	0.80 U
Magnesium	35,000 GV	7439-95-4	4,930	3,600 B	2,400	1,220 B	1,680 B	1,250 B	2,120 B	1,260 B
Manganese	300 ST	7439-96-5	1,290	1,300	1,070	345	289	153	233	132
Mercury	0.7 ST	7439-97-6	0.1 U	NA	0.1 U	NA	0.1 U	NA	NA	0.1 U
Nickel	100 ST	7440-02-0	1.5	1.9 U	1.4 U	NA	3 B	NA	NA	1.5 U
Potassium	-	7440-09-7	1520	2110 B	1810	915 B	1330 B	796 B	1180 B	692 B
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.5 U	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	0.65 B	1.6 U	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	10,800	22,500	13,900	5,820	6,080	5,320	8,590	5,990
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2 U	0.7 U	1.7 U	NA	1.4 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	39.2	13.7 B	9	NA	44.9	NA	NA	8.2 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	1,503	1,320.9	1,082.4	602	601	190.3	281.5	157.8

NOTES:

J: Estimated due to data validation criteria.

U: Analyzed for but not detected. value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-121 11/13/2003 (ug/l)	MW-121 3/1/2004 (ug/l)	MW-121 5/21/2004 (ug/l)	MW-121 8/24/2004 (ug/l)	MW-121 11/11/2004 (ug/l)	MW-121 2/24/2005 (ug/l)	MW-121 5/26/2005 (ug/l)	MW-121 8/25/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	18.2 B	NA	NA	1240	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	6 B	NA	NA	54.7 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	2 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	36.8 B	NA	NA	69.9 B	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.21 B	0.3 U	0.39 B	0.32 B	1.2 B	0.65 U	0.65 U
Calcium	-	7440-70-2	4,040 B	3,880 B	3,270 B	5,770	8,850	21,700	4,200 B	6,480
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	0.7 B	NA	NA	6.1 B	NA	NA
Cobalt	-	7440-48-4	NA	NA	1.5 U	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	3 B	NA	NA	8.2 B	NA	NA
Iron	300 ST	7439-89-6	30.1 B	63.3 B	61.8 B	23.2 B	50.8 B	2,810	148	122
Lead	25 ST	7439-92-1	1.5 B	1.6 U	1.2 U	0.70 U	1.1 U	12.4	3.4	1.7 U
Magnesium	35,000 GV	7439-95-4	1,280 B	1,160 B	982 B	1,840 B	2,470 B	2,980 B	1,030 B	1810 B
Manganese	300 ST	7439-96-5	125	127	86.4	222	392	213	133	214
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.1 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	1.6 U	NA	NA	6.1 B	NA	NA
Potassium	-	7440-09-7	688 B	7,571	658 B	1,280 B	1,750 B	3,620 B	973 B	1,090 B
Selenium	10 ST	7782-49-2	NA	NA	2.5 B	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	0.75 U	NA	NA
Sodium	20,000 ST	7440-23-5	5,900	5,350	4,700 B	7,400	9,940	24,900	6,960	9,820
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	4.9 B	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	19 B	NA	NA	298	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	155.1	190.3	148.2	245.2	442.8	3,023	281	336

NOTES:

J Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value

U: Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-121 11/28/2005 (ug/l)	MW-121 2/27/2006 (ug/l)	MW-121 5/19/2006 (ug/l)	MW-121 8/11/2006 (ug/l)	MW-121 11/29/2006 (ug/l)	MW-121 2/23/2007 (ug/l)	MW-121 6/1/2007 (ug/l)	MW-121 8/16/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	29.9 B	120 B	52.6 B	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	4.1 B	2.8 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	20.2 B	25.0 B	12.8 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.17 U	0.30 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	142 B	88.2 B	67.8 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.73 B	0.34 U	0.34 U	0.28 U	3.9 B	0.16 U	0.28 U
Calcium	-	7440-70-2	12,600	21,900	19,000	11,100	7,900	22,900	4,420 B	4,490 B
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.50 U	1.3 B	0.33 U	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	1.3 U	0.40 U	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	2.6 B	10.8 B	9.8 B	NA
Iron	300 ST	7439-89-6	13.4 B	249	69.1 B	7.5 B	67.3 B	165	31.7 B	17.5 B
Lead	25 ST	7439-92-1	1.6 U	5.3	2.0 B	1.9 U	1.5 U	2.3 B	1.1 U	1.7 U
Magnesium	35,000 GV	7439-95-4	3,390 B	3,860 B	3,710 B	2,180 B	1,670 B	2,680 B	707 B	686 B
Manganese	300 ST	7439-96-5	443	389	940	585	395	3,470	368	374
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.12 B	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.8 U	3.2 B	0.78 U	NA
Potassium	-	7440-09-7	2,250 B	4,080 B	4,030 B	3,710 B	3,180 B	10,100	2,920 B	2,890 B
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	1.7 U	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	18,600	17,900	19,700	16,800	16,500	16,100	16,900	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	3.5 B	3.6 B	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	1.4 U	1.1 U	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	48.5	136	16.6 B	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	456.4	638	1,009.1	592.5	462.3	3,635	399.7	391.5

NOTES:

J Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

ST: Standard

GV: Guidance value.

Appendix A-2

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-121 11/14/2007 (ug/l)	MW-121 2/12/2008 (ug/l)	MW-121 5/14/2008 (ug/l)	MW-121 8/6/2008 (ug/l)	MW-121 11/5/2008 (ug/l)	MW-121 2/25/2009 (ug/l)	MW-121 8/13/2009 (ug/l)	MW-121 2/5/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	8.7 U	NA	12.5 U	190 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	1.8 U	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	13.0 B	NA	28.5 B	23.4 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.096 U	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	30.7 B	NA	23.9 B	22.4 B
Cadmium	5 ST	7440-43-9	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U	0.35 U	0.36 U	0.97 B
Calcium	-	7440-70-2	5,780 J	6,480	7,190	7,480	6,570	11,800	9,260	8,260
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.41 U	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	0.02 U	NA	0.49 U	1.0 B
Cobalt	-	7440-48-4	NA	NA	NA	NA	0.88 U	NA	0.76 U	1.2 U
Copper	200 ST	7440-50-8	NA	NA	NA	NA	0.65 U	NA	0.70 B	4.1 B
Iron	300 ST	7439-89-6	24.2 U	264	66.6 B	12.0 B	7.8 B	9.2 B	14.9 B	161 J*
Lead	25 ST	7439-92-1	1.4 U	1.4 U	2.3 U	2.3 U	1.3 U	1.3 U	9.1	1.8 U
Magnesium	35,000 GV	7439-95-4	889 JB	960 B	1,120 B	1,040 B	899 B	1,530 B	1,070 B	984 B
Manganese	300 ST	7439-96-5	650 J	918	1,040	1,540	1,200	2,650	3,760	457
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	1.2 U	NA	0.82 U	1.6 B
Potassium	-	7440-09-7	2,150 B	2,750 B	3,300 B	3,950 B	3,320 B	3,870 B	5,630	5020
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	5.3 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	10,700 J	11,400	12,400	11,700	10,700	14,900	14,500	9,940
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.9 U	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	0.74 U	NA	0.77 U	1.4 U
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	2.8 B	NA	29	65.5
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	674	1,182	1,106.6	1,552	1,207.8	2,659.2	3,769.2	618

NOTES:

J: Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit.

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U*: Result qualified as non-detect based on validation criteria

ST: Standard.

GV: Guidance value

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-12S 10/31/1997 (ug/l)	MW-12S 12/7/2000 (ug/l)	MW-12S 2/5/2001 (ug/l)	MW-12S 8/22/2002 (ug/l)	MW-12S "F" 8/22/2002 (ug/l)	MW-12S 11/21/2002 (ug/l)	MW-12S 3/6/2003 (ug/l)	MW-12S 6/4/2003 (ug/l)	MW-12S 8/21/2003 (ug/l)
Aluminum	-	7429-90-5	275	135 B	109	NA	NA	182 B	NA	NA	13.9 U
Antimony	3 GV	7440-36-0	3 U	1.7 U	12.3 U	NA	NA	3.1 U	NA	NA	3.5 U
Arsenic	25 ST	7440-38-2	2.4 U	2.5 U	1.9 U	NA	NA	4.5 U	NA	NA	3.2 U
Barium	1,000 ST	7440-39-3	24.7	35.5 B	32.6	NA	NA	32.7 B	NA	NA	29.1 B
Beryllium	3 GV	7440-41-7	0.1 U	0.1 U	0.1 U	NA	NA	0.4 U	NA	NA	0.20 U
Boron	1,000 ST	7440-42-8	NA	102	108	NA	NA	94.5 B	NA	NA	103
Cadmium	5 ST	7440-43-9	0.3 U	0.4 U	0.2 U	0.10 U	0.10 U	0.5 U	0.10 U	0.10 U	0.30 U
Calcium	-	7440-70-2	32,500	33,500	38,700	45,800	45,600	42,500	40,400	28,700	46,600
Chromium Hexavalent	50 ST	18540-29-9	20 U	20 U	20 U	NA	NA	20 U	NA	NA	20 U
Chromium Total	50 ST	7440-47-3	8.3	8.7 B	3	NA	NA	52.5	NA	NA	9.5 B
Cobalt	-	7440-48-4	1.1 U	0.9 U	1.7 U	NA	NA	1 U	NA	NA	2.1 U
Copper	200 ST	7440-50-8	0.7 U	3.2 B	1.5 U	NA	NA	2.8 B	NA	NA	1.3 B
Iron	300 ST	7439-89-6	326	170	88.4	23,200	2,390	504	231	81.8 B	63.5 B
Lead	25 ST	7439-92-1	1.0 U	1.4 U	1.1 U	2.9 B	0.8 U	1.4 U	1.5 U	1.5 U	0.80 U
Magnesium	35,000 GV	7439-95-4	1,730	1,990 B	2,280	2,530 B	2,430 B	2,080 B	2,070 B	1,720 B	2,470 B
Manganese	300 ST	7439-96-5	29.2	45	14.1	247	36.2	20.3	45.8	4.8 B	3.4 B
Mercury	0.7 ST	7439-97-6	0.1 U	0.1 U	0.1 U	NA	NA	0.1 U	NA	NA	0.1 U
Nickel	100 ST	7440-02-0	1.3 U	3.5 B	1.4 U	NA	NA	2.7 B	NA	NA	2.6 B
Potassium	-	7440-09-7	14,700	14,900	15,400	14,400	14,200	10,700	13,500	9,400	10,700
Selenium	10 ST	7782-49-2	2.8 U	1.7 U	1.5 U	NA	NA	2.4 U	NA	NA	3.8 U
Silver	50 ST	7440-22-4	0.9 U	0.5 U	1.6 U	NA	NA	1 U	NA	NA	1 U
Sodium	20,000 ST	7440-23-5	17,800	18,000	21,100	20,200	20,500	14,300	75,400	27,000	16,200
Thallium	0.5 GV	7440-28-0	2.6 U	2.3 U	2.8 U	NA	NA	4.2 U	NA	NA	2.5 U
Vanadium	-	7440-62-2	1.2 U	0.98 B	1.7 U	NA	NA	1.6 B	NA	NA	1.8 U
Zinc	2,000 ST	7440-66-6	15	2.2 U	3.6 U	NA	NA	13.9 B	NA	NA	5.3 B
Cyanide	200 ST	0057-12-5	10 U	10 U	5 U	NA	NA	10 U	NA	NA	10 U
Iron + Manganese	500 ST	-	355.2	215	102.5	23,447	2,426.2	524.3	276.8	86.6	66.9

NOTES:

J Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value
 U* Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

F: Filtered by lab for dissolved metals

ST Standard.

GV Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-12S 11/13/2003 (ug/l)	MW-12S 3/1/2004 (ug/l)	MW-12S 5/21/2004 (ug/l)	MW-12S 8/24/2004 (ug/l)	MW-12S 11/11/2004 (ug/l)	MW-12S 2/24/2005 (ug/l)	MW-12S 5/26/2005 (ug/l)	MW-12S 8/25/2005 (ug/l)
Aluminum	-	7429-90-5	NA	NA	22.3 B	NA	NA	79.2 B	NA	NA
Antimony	3 GV	7440-36-0	NA	NA	2.4 U	NA	NA	3.6 U	NA	NA
Arsenic	25 ST	7440-38-2	NA	NA	3.6 U	NA	NA	2.5 U	NA	NA
Barium	1,000 ST	7440-39-3	NA	NA	26.8 B	NA	NA	40 B	NA	NA
Beryllium	3 GV	7440-41-7	NA	NA	0.2 U	NA	NA	0.19 U	NA	NA
Boron	1,000 ST	7440-42-8	NA	NA	57.3 B	NA	NA	66.5 B	NA	NA
Cadmium	5 ST	7440-43-9	0.3 U	0.20 U	0.3 U	0.20 U	0.23 U	0.23 U	0.65 U	0.65 U
Calcium	-	7440-70-2	43,000	46,700	36,300	46,000	22,700	63,700	34,700	32,900
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	20 U	NA	NA	20 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	41.6	NA	NA	36.8	NA	NA
Cobalt	-	7440-48-4	NA	NA	1.5 U	NA	NA	1.3 U	NA	NA
Copper	200 ST	7440-50-8	NA	NA	3.9 B	NA	NA	3.5 B	NA	NA
Iron	300 ST	7439-89-6	40.6 B	324	330	203	310	287	796	1,410
Lead	25 ST	7439-92-1	1.6 B	1.6 U	1.2 U	0.70 U	1.1 U	1.1 U	2.8 B	1.7 U
Magnesium	35,000 GV	7439-95-4	2,260 B	2,580 B	1,880 B	2,820 B	1,180 B	3,990 B	1,840 B	1,660 B
Manganese	300 ST	7439-96-5	6.2 B	33.7	22.8	6.0 B	7.4 B	10.4 B	9.2 B	30.4
Mercury	0.7 ST	7439-97-6	NA	NA	0.1 U	NA	NA	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	10.6 B	NA	NA	16.1 B	NA	NA
Potassium	-	7440-09-7	26,900	17,500	15,000	12,600	7,410	21,500	13,100	8,730
Selenium	10 ST	7782-49-2	NA	NA	3.1 B	NA	NA	3.0 U	NA	NA
Silver	50 ST	7440-22-4	NA	NA	0.5 U	NA	NA	1.2 B	NA	NA
Sodium	20,000 ST	7440-23-5	25,900	38,000	30,300	45,000	11,800	145,000	35,700	34,500
Thallium	0.5 GV	7440-28-0	NA	NA	2.8 U	NA	NA	2.7 U	NA	NA
Vanadium	-	7440-62-2	NA	NA	1.7 U	NA	NA	1.8 U	NA	NA
Zinc	2,000 ST	7440-66-6	NA	NA	6 B	NA	NA	34	NA	NA
Cyanide	200 ST	0057-12-5	NA	NA	10 U	NA	NA	10 U	NA	NA
Iron + Manganese	500 ST*	-	46.8	357.7	352.8	209	317.4	297.4	805.2	1,440.4

NOTES:

J Estimated due to data validation criteria

Concentration exceeds Standard/Guidance Value.

U Analyzed for but not detected, value shown is instrument detection limit.

NA Not analyzed

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detected based on validation criteria

*F: Filtered by lab for dissolved metals

ST: Standard

GV: Guidance value.

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS**

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-12S 11/28/2005 (ug/l)	MW-12S 2/27/2006 (ug/l)	MW-12S 5/19/2006 (ug/l)	MW-12S 8/11/2006 (ug/l)	MW-12S 11/29/2006 (ug/l)	MW-12S 2/23/2007 (ug/l)	MW-12S 6/1/2007 (ug/l)	MW-12S 8/16/2007 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	10.2 U	3.50	3.530	NA
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	3.2 U	3.2 U	1.6 U	NA
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	2.9 U	8.0 B	7.1 B	NA
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	26.1 B	39.8 B	30.4 B	NA
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.17 U	0.27 B	0.59 B	NA
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	57.0 B	46.8 B	37.6 B	NA
Cadmium	5 ST	7440-43-9	0.43 U	0.26 U	0.34 U	0.34 U	0.28 U	0.29 B	0.21 B	0.28 U
Calcium	-	7440-70-2	31.100	35.100	21.800	15.500	26.500	27.400	22.700	24.600
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	0.02 U	NA	NA
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	7.6 B	320	72.4	NA
Cobalt	-	7440-48-4	NA	NA	NA	NA	1.3 U	5.5 B	3.5 B	NA
Copper	200 ST	7440-50-8	NA	NA	NA	NA	1.6 B	12.9 B	6.0 B	NA
Iron	300 ST	7439-89-6	87.3 B	469	97.3 B	629	203	9,180	7,040	21.2 B
Lead	25 ST	7439-92-1	1.6 U	1.8 B	1.9 U	1.9 U	1.5 U	4.8	3.0 B	1.7 U
Magnesium	35,000 GV	7439-95-4	1,710 B	2,550 B	1,430 B	1,040 B	1,920 B	2,290 B	2,290 B	2,000 B
Manganese	300 ST	7439-96-5	5.6 B	13.3 B	6.8 B	35	4.0 B	412	295	2.2 B
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.1 U	0.10 U	NA	NA
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	6.8 B	29.1 B	16.6 B	NA
Potassium	-	7440-09-7	12,400	13,400	21,000	29,800	20,800	17,500	11,400	17,900
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.7 U	2.4 B	3.0 U	NA
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.38 U	0.38 U	0.51 U	NA
Sodium	20,000 ST	7440-23-5	30,700	43,400	26,900	23,400	23,100	20,400	18,600	U*
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	2.9 U	5.0 B	5.5 B	NA
Vanadium	-	7440-62-2	NA	NA	NA	NA	1.4 U	14.0 B	9.3 B	NA
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	36.0	52.2	23.9	NA
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	10.0 U	NA	NA
Iron + Manganese	500 ST*	-	92.9	482.3	100.1	664	207	9,592	7,335	23.4

NOTES:

J. Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed

B: Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

*F: Filtered by lab for dissolved metals

ST: Standard.

GV: Guidance value.

Appendix A-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	MW-12S 11/14/2007 (ug/l)	MW-12S 2/12/2008 (ug/l)	MW-12S 5/14/2008 (ug/l)	MW-12S 8/6/2008 (ug/l)	MW-12S 11/5/2008 (ug/l)	MW-12S 2/25/2009 (ug/l)	MW-12S 8/13/2009 (ug/l)	MW-12S 2/5/2010 (ug/l)
Aluminum	-	7429-90-5	NA	NA	NA	NA	6710	NA	12.5 U	157 B
Antimony	3 GV	7440-36-0	NA	NA	NA	NA	2.3 U	NA	2.5 U	2.1 U
Arsenic	25 ST	7440-38-2	NA	NA	NA	NA	6.0 B	NA	3.0 U	2.3 U
Barium	1,000 ST	7440-39-3	NA	NA	NA	NA	47.1 B	NA	26.7 B	25.1 B
Beryllium	3 GV	7440-41-7	NA	NA	NA	NA	0.38 B	NA	0.13 U	0.26 U
Boron	1,000 ST	7440-42-8	NA	NA	NA	NA	55.4 B	NA	38.1 B	42.9 B
Cadmium	5 ST	7440-43-9	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U	0.35 U	0.26 U	0.34 U
Calcium	-	7440-70-2	27,000 J	30,400	26,900	29,200	29,900	28,200	30,800	28,900
Chromium Hexavalent	50 ST	18540-29-9	NA	NA	NA	NA	0.02 U	NA	0.02 U	0.02 U
Chromium Total	50 ST	7440-47-3	NA	NA	NA	NA	203	NA	3.2 B	152
Cobalt	-	7440-48-4	NA	NA	NA	NA	5.4 B	NA	0.76 U	2.4 B
Copper	200 ST	7440-50-8	NA	NA	NA	NA	12.8 B	NA	0.90 B	3.2 B
Iron	300 ST	7439-89-6	132	3,060	864	3,630	10,500	110	64.6 B	1,100 J*
Lead	25 ST	7439-92-1	1.4 U	1.4 U	2.3 U	2.8 B	5.0	1.3 U	7.9	1.8 U
Magnesium	35,000 GV	7439-95-4	1,720 JB	1,860 B	2,210 B	2,490 B	2,770	2,440 B	2,410 B	2,620 B
Manganese	300 ST	7439-96-5	2.8 JB	17.7	28.5	139	357	24.4	10.0 B	136
Mercury	0.7 ST	7439-97-6	NA	NA	NA	NA	0.13 U	NA	0.10 U	0.10 U
Nickel	100 ST	7440-02-0	NA	NA	NA	NA	19.7 B	NA	2.1 B	7.9 B
Potassium	-	7440-09-7	17,600	14,400	11,200	19,900	20,100	15,300	15,400	19,500
Selenium	10 ST	7782-49-2	NA	NA	NA	NA	1.9 U	NA	5.3 U	2.5 U
Silver	50 ST	7440-22-4	NA	NA	NA	NA	0.54 U	NA	0.33 U	0.83 U
Sodium	20,000 ST	7440-23-5	22,000 J	26,300	22,400	28,200	39,800	31,600	24,400	30,800
Thallium	0.5 GV	7440-28-0	NA	NA	NA	NA	1.9 U	NA	3.9 U	3.2 U
Vanadium	-	7440-62-2	NA	NA	NA	NA	15.9 B	NA	0.77 U	2.6 B
Zinc	2,000 ST	7440-66-6	NA	NA	NA	NA	23.9	NA	8.3 B	11.6 B
Cyanide	200 ST	0057-12-5	NA	NA	NA	NA	10.0 U	NA	10.0 U	10.0 U
Iron + Manganese	500 ST*	-	134.8	3,062.8	892.5	3,769	10,857	134.4	74.6	1,236

NOTES:

J Estimated due to data validation criteria

U: Analyzed for but not detected, value shown is instrument detection limit

NA: Not analyzed.

B Concentration is above instrument detection limit but below contract required detection

U* Result qualified as non-detect based on validation criteria

*F: Filtered by lab for dissolved metals

ST: Standard.

GV: Guidance value.

APPENDIX A-3

Volatile Organic Compounds

APPENDIX A-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	Date of Collection	CAS #	MW-01D 10/24/1997	MW-01D 1/28/1998	MW-01D 11/30/2000	MW-01D 1/30/2001	MW-01D 11/20/2002	MW-01D 8/21/2003	MW-01D 5/20/2004	MW-01D 2/28/2005	MW-01D 11/29/2006	MW-01D 2/21/2007	MW-01D 11/3/2008	MW-01D 8/12/2009	MW-01D 2/4/2010	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane		000030-20-6	NA	170	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane		000071-55-6	66	170	5 U	1.1 J	5 U	3 J	1 J	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane		000079-34-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane		000079-00-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane		000075-34-3	13	22	3 J	3.3 J	3 J	23	16	3 J	1 J	5 U	3 J*	5 U	5 U	5 ST
1,1-Dichloroethane		000075-35-4	5 J	15	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	1 J*	5 U	5 U	5 ST
1,1-Dichloropropene		000563-58-6	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane		000096-18-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane		000096-12-8	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromopropane		000106-93-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene		000095-50-1	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
1,2-Dichloroethane		000107-06-2	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethane (total)		000540-59-0	0.4 U	10.0 U	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane		000078-87-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene		000106-46-7	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
2-Butanone		000078-93-3	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone		000591-78-6	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone		000108-10-1	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Acetone		000067-64-1	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U*	5 U*	5 U	1 BJ	50 GV
Acrylonitrile		000107-13-1	NA	NA	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene		000071-43-2	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane		000074-97-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane		000075-27-4	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromoform		000075-25-2	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane		000074-83-9	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide		000075-15-0	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon tetrachloride		000056-23-5	0.4 U	20	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene		000108-90-7	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane		000075-00-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform		000067-66-3	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Chloromethane		000074-87-3	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethane		000156-59-2	NA	NA	8	5	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene		010061-01-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane		000124-48-1	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane		000074-95-3	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene		000100-41-4	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane		000074-88-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride		000075-09-2	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U*	5 U	5 ST
Styrene		000100-42-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethane		000127-18-4	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	2 J	5 U	5 U	5 ST
Toluene		000108-88-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs			84	227	15	13.1	3	26	17	3	4	11	6	3 J	5 U	5 ST
trans-1,2-Dichloroethane		000156-60-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene		010061-02-6	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene		000110-57-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethane		000079-01-6	0.4 U	10.0 U	4 J	3.7 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane		000075-69-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate		000108-05-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Vinyl chloride		000075-01-4	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)		001330-20-7	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

QUALIFIERS

B: Compound was found in the method blank as well as the sample

U: Compound was analyzed for but not detected at the detection limit shown

J: Compound was found at a concentration below the detection limit, value estimated

E: Concentration exceeds instrument calibration range, value estimated

D: Result taken from analysis at a secondary dilution

U*: Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value

ST: Standard

NA: Not Analyzed

NS: Not Sampled

J*: Result qualified as estimated based on validation criteria

APPENDIX A-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	10/24/1997	1/28/1998	MW-011	11/30/2000	MW-011	1/30/2001	MW-011	8/21/2003	MW-011	5/20/2004	MW-011	2/28/2005	MW-011	11/29/2006	MW-011	2/21/2007	MW-011	11/3/2008	MW-011	8/12/2009	MW-011	2/4/2010	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Date of Collection																							
Volatiles Organic Compounds	CAS #																						
1,1,1,2-Tetrachloroethane	000630-20-6	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane	000071-55-6	22	5 U	14	5 U	8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane	000079-00-5	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-34-3	14	13	13	5 U	8.5 U	5 U	2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethene	000075-35-4	2 U	10.0 U	2 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloropropane	000561-58-6	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dibromomethane	000106-93-4	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichloroethane	000107-06-2	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichloroethene (total)	000540-59-0	0.4 U	10.0 U	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04 ST
1,2-Dichloropropane	000078-87-5	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
2-Butanone	000078-93-3	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
2-Hexanone	000591-78-6	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
4-Methyl-2-pentanone	000108-10-1	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Acetone	000067-64-1	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Acrylonitrile	000107-13-1	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene	000071-43-2	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromochloromethane	000074-97-5	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane	000075-27-4	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromobromomethane	000075-25-2	0.6 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromomethane	000074-83-9	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide	000075-15-0	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon tetrachloride	000056-23-5	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	000108-90-7	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane	000075-00-3	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform	000067-66-3	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloromethane	000074-87-3	0.6 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethane	000156-59-2	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Dibromochloromethane	000124-48-1	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Dibromomethane	000074-93-3	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene	000100-41-4	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	000074-88-4	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride	000075-09-2	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Styrene	000100-42-5	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethane	000127-18-4	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene	000108-88-3	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs		38	18.1	29	5 U	16.5	5 U	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	0.2 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,4-Dichloro-2-butene	NA	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethene	000079-01-6	0.4 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate	000108-05-4	NA	NA	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl chloride	000075-01-4	0.6 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Xylene (total)	000130-20-7	0.6 U	10.0 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B: Compound was found in the method blank as well as the sample

U: Compound was analyzed for but not detected at the detection limit shown.

J: Compound was found at a concentration below the detection limit, value estimated

E: Concentration exceeds instrument calibration range, value estimated

D: Result taken from analysis at a secondary dilution.

U*: Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value

ST: Standard

NA: Not Analyzed

J*: Parameter exceeds Standard/Guidance Value

NS: Not Sampled

J*: Result qualified as estimated based on validation criteria

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

Sample ID	Date of Collection	CAS #	MW-01S	MW-01S	MW-01S	MW-01S	MW-01S	MW-01S	MW-01S	MW-01S	MW-01S	MW-01S	MW-01S	NYSDEC Class GA GROUNDWATER STANDARD GUIDANCE VALUE
			10/24/1997 (ug/l)	1/28/1998 (ug/l)	1/30/2000 (ug/l)	11/29/2001 (ug/l)	8/21/2003 (ug/l)	5/20/2004 (ug/l)	2/28/2005 (ug/l)	11/29/2006 (ug/l)	2/21/2007 (ug/l)	8/12/2009 (ug/l)	2/4/2010 (ug/l)	
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	000630-20-6		NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1,1-Trichloroethane	000071-55-6		0.6 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1,2-Tetrachloroethane	000079-34-5		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1,2-Trichloroethane	000079-00-5		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-34-3		8 U	10.0 U	3 J	2.2 J	2 J	3 J	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-35-4		0.6 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloropropene	000563-58-6		NA	NA	NA	10.0 U	NA	NA	NA	NA	NA	NA	NA	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8		NA	NA	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromobenzene	000106-93-4		NA	NA	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene	000095-50-1		NA	NA	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
1,2-Dichloroethane	000107-06-2		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethane (total)	000540-59-0		0.4 U	10.0 U	NA	10.0 U	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene	000106-46-7		NA	NA	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
2-Butanone	000078-93-3		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone	000591-78-6		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone	000108-10-1		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Acetone	000067-64-1		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acrylonitrile	000107-13-1		NA	NA	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Benzene	000071-43-2		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromochloromethane	000074-97-5		NA	NA	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane	000075-27-4		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromoform	000075-25-2		0.6 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane	000074-83-9		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide	000075-15-0		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon tetrachloride	000056-23-5		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	000108-90-7		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane	000075-00-3		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform	000067-66-3		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Chloromethane	000074-87-3		0.6 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethane	000156-59-2		NA	NA	7	8	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene	010061-01-5		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane	000124-48-1		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane	000074-95-3		NA	NA	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene	000100-41-4		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	000074-88-4		NA	NA	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride	000075-09-2		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U*	5 U	5 ST
Styrene	000100-42-5		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethene	000127-18-4		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene	000108-88-3		0.4 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs														
trans-1,2-Dichloroethene	000156-60-5		NA	NA	12	12	2	U	U	U	U	U	U	5 ST
trans-1,3-Dichloropropene	010061-02-6		0.2 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6		NA	NA	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethene	000079-01-6		0.4 U	10.0 U	2 J	3.3 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	000075-69-4		NA	NA	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate	000108-05-4		NA	NA	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Vinyl chloride	000075-01-4		0.6 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl (ene total)	0001330-20-7		0.6 U	10.0 U	5 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

B. Compound was found in the method blank as well as the sample
 U. Compound was analyzed for but not detected at the detection limit shown
 J. Compound was found at a concentration below the detection limit, value estimated
 E. Concentration exceeds instrument calibration range, value estimated.
 D. Result taken from analysis at a secondary dilution
 U*. Result qualified as non-detect based on validation criteria

APPENDIX A-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	Date of Collection	MW-02D 10/27/1997	MW-02D 1/28/1998	MW-02D 12/1/2000	MW-02D 1/30/2001	MW-02D 11/20/2002	MW-02D 8/22/2003	MW-02D 5/20/2004	MW-02D 02/28/05	MW-02D 11/30/06	MW-02D 02/22/07	MW-02D 11/3/2008	MW-02D 8/14/2009	MW-02D 2/8/2010	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatiles Organic Compounds	CAS #	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	
1,1,1,2-Tetrachloroethane	000630-20-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane	000071-55-6	6.0 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane	000079-00-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-34-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-35-4	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000563-58-6	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromoethane	000106-93-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
1,2-Dichloroethane	000107-06-2	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethane (total)	000540-59-0	0.4 U	10.0 U	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
2-Butanone	000078-93-3	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone	000591-78-6	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone	000108-10-1	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Acetone	000067-64-1	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acrylonitrile	000107-13-1	NA	NA	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene	000071-43-2	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane	000074-97-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromodichloromethane	000075-27-4	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromofrom	000075-25-2	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane	000074-83-9	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide	000075-15-0	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon tetrachloride	000056-23-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	000108-90-7	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane	000075-00-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Chloroform	000067-66-3	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloromethane	000074-87-3	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethane	000156-59-2	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane	000124-48-1	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane	000074-95-3	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene	000100-41-4	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	000074-88-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride	000075-09-2	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Styrene	000100-42-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethane	000127-18-4	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene	000108-88-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs		U	U	U	U	U	U	U	U	U	U	U	U	U	
trans-1,2-Dichloroethane	000156-60-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethane	000079-01-6	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate	000108-05-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Vinyl chloride	000075-01-4	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)	001330-20-7	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B: Compound was found in the method blank as well as the sample
 U: Compound was analyzed for but not detected at the detection limit shown
 J: Compound was found at a concentration below the detection limit, value estimated
 E: Concentration exceeds instrument calibration range, value estimated
 D: Result taken from analysis at a secondary dilution
 U*: Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value
 ST: Standard
 NA: Not Analyzed
 NS: Not Sampled
 J*: Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

QUALIFIERS	NOTES
B* Compound was found in the method blank as well as the sample	CV: Guidance Value
U: Compound was analyzed for but not detected at the detection limit shown	ST: Standard
J: Compound was found at a concentration below the detection limit, value estimated	NA: Not Analyzed
E: Concentration exceeds instrument calibration range, value estimated	Parameter exceeds Standard/Guidance Value
D: Result taken from analysis at a secondary dilution	NS: Not Sampled
U* Result qualified as non-detect based on validation criteria	J*: Result qualified as estimated based on validation criteria

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

QUALIFIERS	NOTES
B: Compound was found in the method blank as well as the sample	G.Y. Guidance Value
U: Compound was analyzed for but not detected at the detection limit shown	ST: Standard
J*: Compound was found at a concentration below the detection limit, value estimated	N.A.: Not Analyzed
E: Concentration exceeds instrument calibration range, value estimated.	*****: Parameter exceeds Standard/Guidance Value
D: Result taken from analysis at a secondary dilution	NS: Not Sampled
U*: Result qualified as non-detected based on validation criteria	J*: Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL POST CLOSURE GROUNDWATER MONITORING PROGRAM HISTORIC AND CURRENT SAMPLE RESULTS VOLATILE ORGANIC COMPOUNDS

QUALIFIERS
B: Compound was found in the method blank as well as the sample
U: Compound was analyzed for but not detected at the detection limit shown
J: Compound was found at a concentration below the detection limit, value estimated
E: Concentration exceeds instrument calibration range, value estimated
D: Result taken from analysis at a secondary dilution
U*: Result qualified as non-detected based on validation criteria

NOTES
GV: Guidance Value
ST: Standard
NA: Not Analyzed
NA: Parameter exceeds Standard/Guidance Value
NS: Not Sampled
J*: Result qualified as estimated based on validation criteria

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

QUALIFIERS

B Compound was found in the method blank as well as the sample

C Compound was analyzed for but not detected at the detection limit shown.

U Compound was found at a concentration below the detection limit, value estimated

E Concentration exceeds instrument calibration range, value estimated

D Result taken from analysis at a secondary dilution

U* Result qualified as non-detect based on validation criteria

NOTES

CV Guidance Value

ST Standard

NA Not Analyzed

NS Not Sampled

Parameter exceeds Standard/Guidance Value

J* Result qualified as estimated based on validation criteria

APPENDIX A-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	Date of Collection	CAS #	MW-03S 10/30/1997 (ug/l)	MW-03S 12/6/2000 (ug/l)	MW-03S 2/2/2001 (ug/l)	MW-03S 11/22/2002 (ug/l)	MW-03S 8/25/2003 (ug/l)	MW-03S 5/24/2004 (ug/l)	MW-03S 3/2/2005 (ug/l)	MW-03S 11/29/2006 (ug/l)	MW-03S 2/22/2007 (ug/l)	MW-03S 11/5/2008 (ug/l)	MW-03S 8/14/2009 (ug/l)	MW-03S 2/4/2010 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane		000630-20-6	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane		000071-55-6	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane		000079-34-5	200 U	100 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane		000079-00-5	200 U	100 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane		000075-34-3	120 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane		000075-35-4	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane		000563-58-6	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane		000096-18-4	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane		000096-12-8	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromopropane		000106-93-4	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene		000095-50-1	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichloroethane		000107-06-2	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethane (total)		000540-59-0	260 U	100 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichloropropane		000078-87-5	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene		000106-46-7	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
2-Butanone		000078-93-3	220 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone		000591-78-6	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone		000108-10-1	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acetone		000067-64-1	340 U	100 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acrylonitrile		000107-13-1	NA	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene		000071-43-2	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane		000074-97-5	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane		000075-27-4	180 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromoform		000075-25-2	180 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane		000074-83-9	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide		000075-15-0	120 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon tetrachloride		000056-23-5	180 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene		000108-90-7	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane		000075-00-3	4 J	3 J	2.8 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform		000067-66-3	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Chloromethane		000074-87-3	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethane		000156-59-2	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene		010061-01-5	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane		000124-48-1	220 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane		000074-95-3	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene		000100-41-4	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane		000074-88-4	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride		000075-09-2	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Styrene		000100-42-5	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethane		000127-18-4	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene		000108-88-3	120 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOC's		4	U	3	2.8	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethane		000156-60-5	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene		010061-02-6	180 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene		000110-57-6	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethane		000079-01-6	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane		000075-69-4	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate		000108-05-4	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Vinyl chloride		000075-01-4	140 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)		001330-20-7	160 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B. Compound was found in the method blank as well as the sample
 U. Compound was analyzed for but not detected at the detection limit shown
 J. Compound was found at a concentration below the detection limit, value estimated
 E. Concentration exceeds instrument calibration range, value estimated
 D. Result taken from analysis at a secondary dilution
 U*. Result qualified as non-detect based on validation criteria

NOTES

GV Guidance Value
 ST. Standard
 NA Not Analyzed
 NS Not Sampled
 J* Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL.

Sample ID	Date of Collection	CAS #	MW-04D														NYSDC Class GA	
			10/28/1997	1/28/1998	12/6/2000	2/12/2001	11/21/2002	8/25/2003	5/24/2004	03/01/05	11/3/06	02/23/07	11/3/2008	8/12/2009	2/4/2010	STANDARD/GUIDANCE VALUE		
Volatile Organic Compounds																		
	000630-20-6	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,1,1-Trichloroethane			0.6 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,1,2,2-Tetrachloroethane			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,1,2-Trichloroethane			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,1,1-Dichloroethane			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,1-Dichloroethane			0.6 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,1-Dichloropropene			NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST		
1,2,3-Trichloropropene			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST		
1,2-Dibromo-3-chloropropane			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST		
1,2-Dibromoethane			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,2-Dichlorobenzene			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,2-Dichloroethane (total)			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,2-Dichloroethane			7 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,2-Dichloropropane			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,4-Dichlorobenzene			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
2-Butanone			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
1,2-Hexanone			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV		
4-Methyl-2-pentanone			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV		
Acetone			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV		
Acrylonitrile			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Benzene			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Bromochloromethane			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Bromodichloromethane			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV		
Bromoform			0.6 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV		
Bromomethane			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV		
Carbon disulfide			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Carbon tetrachloride			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Chlorobenzene			1 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Chloroethane			1 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Chloroform			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST		
Chloromethane			0.6 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
cis-1,2-Dichloroethane			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
cis-1,3-Dichloropropene			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST		
Dibromochloromethane			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV		
Dibromomethane			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Diethylbenzene			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Iodomethane			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Methylene chloride			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Syrene			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Tetrachloroethane			4 U	25 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Toluene			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
TOTAL VOCs			23	32.5	4	25	1	3	4	4	U	U	U	U	U	5 ST		
trans-1,2-Dichloroethene			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
trans-1,3-Dichloropropene			0.2 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST		
trans-1,4-Dichloro-2-butene			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Trichloroethane			0.4 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Trichlorofluoromethane			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Vinyl Acetate			NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		
Vinyl chloride			0.6 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST		
Xylene (total)			0.6 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST		

QUALIFIERS

B-Compound was found in the method blank as well as the sample

U: Compound was analyzed for but not detected at the detection limit shown.

J. Compound was found at a concentration below the detection limit, value estimated

E Concentration exceeds instrument calibration range, value estimated

D Result taken from analysis at a secondary dilution

U*: Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value

ST Standard

NA. Not Analyzed

: Parameter exceeds Standard/Guidance Value

NS, Not Sampled

J* Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	Date of Collection	CAS #	MW-041 (ug/l)	1/28/1998	MW-041 (ug/l)	12/6/2000	MW-041 (ug/l)	11/27/2002	MW-041 (ug/l)	5/24/2003	MW-041 (ug/l)	03/01/05	MW-041 (ug/l)	02/23/07	MW-041 (ug/l)	8/12/2009	MW-041 (ug/l)	2/4/2010	NYDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE												
Volatile Organic Compounds	000630-20-6		NA		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST												
	000071-55-6		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000079-34-5		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 ST											
	000079-002-5		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U			5 ST										
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U				5 ST									
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U					5 ST								
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U						5 ST							
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U							5 ST						
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U								5 ST					
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U									5 ST				
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U										5 ST			
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U											5 ST		
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U												5 ST	
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
	000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													5 ST
	000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST													
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 ST												
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U			5 ST											
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U				5 ST										
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U					5 ST									
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U						5 ST								
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U							5 ST							
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U								5 ST						
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U									5 ST					
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U										5 ST				
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U											5 ST			
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U												5 ST		
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													5 ST	
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST													
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 ST												
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U			5 ST											
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U				5 ST										
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U					5 ST									
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U						5 ST								
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U							5 ST							
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U								5 ST						
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U									5 ST					
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U										5 ST				
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U											5 ST			
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U												5 ST		
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U													5 ST	
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST													
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 ST												
000075-35-4		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U														
000075-34-3		10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U			5 ST											
000075-35-4		10.0 U																													

NOTES

GV: Guidance Value
ST: Standard
NA: Not Analyzed
NS: Not Sampled
*: Result qualified as

U*: Result qualified as non-detect based on validation criteria

APPENDIX A-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	CAS #	MW-04S 10/29/1997	MW-04S 2/2/1998	MW-04S 12/6/2000	MW-04S 2/1/2001	MW-04S 11/22/2002	MW-04S 8/25/2003	MW-04S 5/24/2004	MW-04S 3/1/2005	MW-04S 11/30/2006	MW-04S 3/2/2007	MW-04S 11/3/2008	MW-04S 8/12/2009	MW-04S 2/4/2010	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatiles Organic Compounds		(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	
1,1,1,2-Tetrachloroethane	000630-20-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane	000071-55-6	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane	000079-00-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-34-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-35-4	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromoethane	000106-93-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichloroethane	000107-06-2	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	0.4 U	10.0 U	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
2-Butanone	000078-93-3	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone	000591-78-6	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone	000108-10-1	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Acetone	000067-64-1	0.4 U	3.4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acrylonitrile	000107-13-1	NA	NA	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene	000071-43-2	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane	000074-97-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane	000075-27-4	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromoform	000075-25-2	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane	000074-83-9	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Carbon disulfide	000075-15-0	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon tetrachloride	000056-23-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	000108-90-7	4 U	3.0 U	3 U	2.9 U	3 U	3 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	5 ST
Chloroethane	000075-00-3	8 U	2.2 U	5 U	3.8 U	5 U	3 U	5 U	5 U	3 U	2 U	5 U	5 U	5 U	5 ST
Chloroform	000067-66-3	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloromethane	000074-87-3	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethene	000136-59-2	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Dibromochloromethane	000124-48-1	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromomethane	000074-95-3	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Ethylbenzene	000100-41-4	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	000074-88-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride	000075-09-2	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Styrene	000100-42-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethene	000127-18-4	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene	000108-88-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs		12	13.6	8	6.7	11.2	7	2	2	5	4	2.1*	U	5 U	5 ST
trans-1,2-Dichloroethene	000136-60-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethene	000079-01-6	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate	000108-05-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Vinyl chloride	000075-01-4	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)	001330-20-7	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B. Compound was found in the method blank as well as the sample

U. Compound was analyzed for but not detected at the detection limit shown

J. Compound was found at a concentration below the detection limit, value estimated

E. Concentration exceeds instrument calibration range, value estimated

D. Result taken from analysis at a secondary dilution

U*: Result qualified as non-detect based on validation criteria

NOTES

GV. Guidance Value

ST. Standard

NA. Not Analyzed

Parameter exceeds Standard/Guidance Value

NS. Not Sampled

J*. Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

QUALIFIERS	NOTES
B Compound was found in the method blank as well as the sample	GV: Guidance Value
U Compound was found for but not detected at the detection limit shown	ST: Standard
J: Compound was found at a concentration below the detection limit, value estimated	NA: Not Analyzed
E: Concentration exceeds instrument calibration range, value estimated.	Parameter exceeds Standard/Guidance Value
D Result taken from analysis at a secondary dilution.	NS: Not Sampled
U* Result qualified as non-detect based on validation criteria	* Result qualified as estimated based on validation criteria

APPENDIX A-3

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

Sample ID		MW-051 10/29/1997	MW-051 2/7/1998	MW-051 12/8/2000	MW-051 2/2/2001	MW-051 11/22/2002	MW-051 8/25/2003	MW-051 5/25/2004	MW-051 03/02/05	MW-051 11/30/06	MW-051 02/21/07	MW-051 11/5/2008	MW-051 8/17/2009	MW-051 2/8/2010	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatiles Organic Compounds	CAS #	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	
1,1,1,2-Tetrachloroethane	000630-20-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1,2-Trichloroethane	000071-55-6	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Trichloroethane	000079-00-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane	000075-34-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-35-4	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropene	000096-18-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromoethane	000106-93-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
1,2-Dichloroethane	000107-06-2	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethene (total)	000340-59-0	4 J	4 J	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
2-Butanone	000078-93-3	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone	000591-78-6	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone	000108-10-1	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acetone	000067-64-1	0.4 U	3 J	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 BJ	50 GV
Acrylonitrile	000107-13-1	NA	NA	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene	000071-43-2	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane	000074-97-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane	000075-27-4	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromoform	000075-25-2	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane	000074-83-9	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide	000075-15-0	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon tetrachloride	000056-23-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	000108-90-7	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane	000075-00-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform	000067-66-3	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Chloromethane	000074-87-3	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	NA	NA	5 U	10 U	1 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane	000124-48-1	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane	000074-95-3	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene	000100-41-4	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	000074-88-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride	000075-09-2	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Styrene	000100-42-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethene	000127-18-4	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene	000108-88-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs		8	9.9	U	U	1	U	U	U	U	U	U	U	U	5 U
trans-1,2-Dichloroethene	000156-60-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethene	000079-01-6	4 J	2.2 J	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate	000108-05-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl chloride	000075-01-4	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)	000130-20-7	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B. Compound was found in the method blank as well as the sample
 U. Compound was analyzed for but not detected at the detection limit shown
 J. Compound was found at a concentration below the detection limit, value estimated
 E. Concentration exceeds instrument calibration range, value estimated
 D. Result taken from analysis at a secondary dilution.
 U* Result qualified as non-detect based on validation criteria

NOTES

GV Guidance Value
 ST Standard
 NA Not Analyzed
 NS Not Sampled
 J* Result qualified as estimated based on validation criteria

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

Sample ID	CAS #	MW-05S 10/29/1997	MW-05S 2/3/1998	MW-05S 12/8/2000	MW-05S 2/2/2001	MW-05S 11/22/2002	MW-05S 8/25/2003	MW-05S 5/25/2004	MW-05S 03/02/05	MW-05S 11/30/06	MW-05S 02/21/07	MW-05S 11/5/2008	MW-05S 8/17/2009	MW-05S 2/8/2010	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatiles Organic Compounds															
1,1,1,2-Tetrachloroethane	000630-20-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane	000071-55-6	6.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane	000079-00-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-34-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-35-4	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000563-58-6	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromopropane	000106-93-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
1,2-Dichloroethane	000107-06-2	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethane (total)	000540-59-0	0.4 U	10.0 U	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	5 U	1.2 J	5 U	1 J	5 U	5 U	1 J	5 U	5 U	5 U	5 U	3 ST
2-Butanone	000078-91-3	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone	000591-78-6	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone	000108-10-1	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Acetone	000067-64-1	0.4 U	10.0 U	5 U	2 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 BJ	50 GV
Acrylonitrile	000107-13-1	NA	NA	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene	000071-43-2	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane	000074-97-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane	000075-27-4	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromofrom	000075-25-2	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane	000074-83-9	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide	000075-15-0	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon tetrachloride	000056-23-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	000108-90-7	5 J	2.4 J	3 J	4.9 J	5 U	1 J	2 J	1 J	4 J	5 U	3 J*	5 U	2 J	5 ST
Chloroethane	000075-00-3	5 J	3 J	3 J	5.2 J	6.6	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform	000067-66-3	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Chloromethane	000074-87-3	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethane	000156-59-2	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane	000124-48-1	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane	000074-95-3	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene	000100-41-4	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	000074-88-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride	000075-09-2	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U*	5 U	5 ST
Styrene	000100-42-5	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethene	000127-18-4	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene	000108-88-3	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs		14	7.5	6	13.3	6.6	2	3	1	5	U	3	U	5 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	NA	NA	5 U	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethene	000079-01-6	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate	000108-05-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Vinyl chloride	000075-01-4	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)	001330-20-7	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B. Compound was found in the method blank as well as the sample
 U. Compound was analyzed for but not detected at the detection limit shown
 J. Compound was found at a concentration below the detection limit, value estimated
 E. Concentration exceeds instrument calibration range, value estimated
 D. Result taken from analysis at a secondary dilution.
 U*. Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value
 ST: Standard
 NA: Not Analyzed
 NS: Not Sampled
 J*: Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	Date of Collection	CAS #	MW-06D 10/28/1997	MW-06D 1/28/1998	MW-06D 12/5/2000	MW-06D 1/31/2001	MW-06D 11/20/2002	MW-06D 8/22/2003	MW-06D 5/24/2004	MW-06D 03/01/05	MW-06D 12/01/06	MW-06D 02/22/07	MW-06D 11/3/2008	MW-06D 8/11/2009	MW-06D 2/4/2010	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000071-20-6	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane	000071-55-6	23	17	17	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-3	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane	000079-00-5	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Dichloroethane	000075-34-3	4 J	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-35-4	4 J	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropene	000096-18-4	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromoethane	000106-93-4	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
1,2-Dichloroethane	000107-06-2	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethane (total)	000540-59-0	480 D	360.0 E	360.0 E	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichloropropane	000078-87-5	0.4 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
2-Butanone	000078-93-3	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone	000591-78-6	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone	000108-10-1	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Acetone	000067-64-1	0.4 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acrylonitrile	000107-13-1	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene	000071-43-2	0.4 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane	000074-97-5	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane	000075-27-4	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromofrom	000075-25-2	0.6 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane	000074-83-9	0.4 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide	000056-23-5	0.4 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon tetrachloride	000108-90-7	0.4 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	000075-00-3	0.4 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane	000067-66-3	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Chloroform	000074-82-3	0.6 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethane	000156-59-2	NA	NA	NA	1 J	1 J	1 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane	000124-48-1	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane	000074-95-3	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene	000100-41-4	0.4 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	000074-88-4	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride	000075-09-2	0.4 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Styrene	000100-42-5	0.4 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethane	000127-18-4	1200 D	1600.0 E	1600.0 E	15	11	5	2 J	5 U	5 U	5 U	5 U	1 J*	5 U	5 U	5 ST
Toluene	000108-88-3	1 J	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs		1.776	2.032	18	12	8	2	2	5 U	5 U	5 U	5 U	1	5 U	5 U	5 ST
trans-1,2-Dichloroethane	000156-60-5	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene	000061-02-6	0.2 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethane	000079-01-6	45	36	36	2 J	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate	000108-05-4	NA	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Vinyl chloride	000075-01-4	19	19	19	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)	0001330-20-7	0.6 U	10 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS
 B: Compound was found in the method blank as well as the sample
 U: Compound was analyzed for but not detected at the detection limit shown.
 J: Compound was found at a concentration below the detection limit, value estimated
 E: Concentration exceeds instrument calibration range, value estimated.
 D: Result taken from analysis at a secondary dilution.
 U: Result qualified as non-detect based on validation criteria

NOTES
 GV: Guidance Value
 ST: Standard
 NA: Not Analyzed
 NS: Not Sampled
 J*: Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL

Sample ID	Date of Collection	CAS #	MW-061 (ug/l)	MW-061 1/28/1998	MW-061 12/21/2000	MW-061 11/21/2002	MW-061 8/22/2003	MW-061 5/24/2004	MW-061 03/01/05	MW-061 12/01/06	MW-061 02/22/07	MW-061 11/04/2008	MW-061 8/11/2009	MW-061 2/4/2010	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatile Organic Compounds															
	000630-20-6		NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	1,1,1,2-Tetrachloroethane														
	000071-55-6		100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	1,1,1,1-Trichloroethane														
	000079-34-5		100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	1,1,2,2-Tetrachloroethane														
	000079-00-5		100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	1,1,2-Trichloroethane														
	000075-34-3		5 J	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	1,1-Dichloroethane														
	000075-35-4		6 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	1,1,1-Dichloroethane														
	000075-35-4		100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	1,1-Dichloropropane														
	000363-58-6		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
	1,2,3-Trichloropropane														
	000096-18-4		NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
	1,2-Dibromo-1-chloropropane														
	000096-12-8		NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
	1,2-Dibromoethane														
	000106-93-4		NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	1,2-Dichlorobenzene														
	000095-50-1		NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
	1,2-Dichloroethane														
	000107-06-2		100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
	1,2-Dichloroethene (total)														
	000340-59-0		100 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
	1,2-Dichloropropane														
	000078-87-5		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
	1,4-Dichlorobenzene														
	000106-46-7		NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
	2-Butanone														
	000078-93-3		2 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
	2-Hexanone														
	000591-78-6		2 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
	4-Methyl-2-pentanone														
	000108-10-1		2 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
	Acetone														
	000067-64-1		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
	Acrylonitrile														
	000107-13-1		NA	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
	Benzene														
	000071-43-2		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
	Bromochloromethane														
	000074-97-5		NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Bromodichloromethane														
	000075-27-4		2 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
	Bromoforn														
	000075-25-2		6 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
	Bromomethane														
	000074-83-9		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Carbon disulfide														
	000075-15-0		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
	Carbon tetrachloride														
	000056-23-5		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Chlorobenzene														
	000108-90-7		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Chloroethane														
	000075-00-3		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Chloroform														
	000067-66-3		2 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
	Chloromethane														
	000074-87-3		6 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	cis-1,2-Dichloroethene														
	000156-59-2		NA	4 J	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	trans-1,3-Dichloropropene														
	010061-01-5		2 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
	Dibromochloromethane														
	000124-48-1		2 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
	Dibromomethane														
	000074-95-3		NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Ethylbenzene														
	000100-41-4		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Iodomethane														
	000074-88-4		NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Methylene chloride														
	000075-09-2		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Styrene														
	000100-42-5		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Tetrachloroethene														
	000127-18-4		3 J	100 U	2 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Toluene														
	000108-88-3		4 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	TOTAL VOCs		12	U	29	U	U	U	U	U	U	U	U	U	
	trans-1,2-Dichloroethane														
	000156-60-5		NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	trans-1,3-Dichloropropene														
	010061-02-6		2 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
	trans-1,4-Dichloro-2-butene														
	000110-57-6		NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Trichloroethene														
	000079-01-6		4 U	100 U	23	3.1 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Trichlorofluoromethane														
	000075-69-4		NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
	Vinyl Acetate														
	000108-05-4		NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
	Vinyl chloride														
	000075-01-4		6 U	100 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
	Xylene (total)														
	001330-20-7		6 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B: Compound was found in the method blank as well as the sample

U: Compound was analyzed for but not detected at the detection limit shown

10. Compound was analyzed for but not detected at the detection limit shown.

E: Concentration exceeds instrument calibration range; value estimated

D: Result taken from analysis at a secondary dilution.

UU*: Result qualified as non-detect based on validation criteria.

NOTES

GV: Guidance Value

ST. Standard

NA: Not Analyzed

Parameter exceeds Standard/Guidance Value

NS: Not Sampled

* Result qualified as estimated based on validation criteria

APPENDIX A-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	10/28/1997	MW-06S	12/5/2000	MW-06S	11/20/2002	MW-06S	03/01/05	MW-06S	12/01/06	MW-06S	02/22/07	MW-06S	11/4/2008	MW-06S	8/11/2009	MW-06S	2/4/2010	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Date of Collection	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	
Volatiles Organic Compounds	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,1,2-Tetrachloroethane	0.6 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	0.6 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethene	0.00075-35.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,1-Dichloropropene	0.00063-58.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04 ST
1,2,3-Trichloropropane	0.00096-11.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04 ST
1,2-Dibromo-3-chloropropane	0.00096-12.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dibromoethane	0.00106-93.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichlorobenzene	0.00095-50.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 ST
1,2-Dichloroethane	0.00107-06.2	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethene (total)	0.4 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	0.00078-87.5	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene	0.00106-46.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 ST
2-Butanone	0.00078-93.3	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone	0.00591-78.6	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone	0.00108-10.1	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Acetone	0.00067-64.1	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acrylonitrile	0.00107-13.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
Benzene	0.00071-43.2	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	1 ST
Bromochloromethane	0.00074-97.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
Bromodichloromethane	0.00075-27.4	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromofrom	0.00075-25.2	0.6 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane	0.00074-83.9	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide	0.00075-15.0	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon tetrachloride	0.00056-23.5	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	0.00108-90.7	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	4 J	5 ST
Chloroethane	0.00075-00.3	1 J	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform	0.00067-66.3	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Chloromethane	0.00074-87.3	0.6 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethene	0.00156-59.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
cis-1,3-Dichloropropene	0.10061-01.5	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane	0.00124-48.1	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane	0.00074-95.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
Ethylbenzene	0.00100-41.4	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	0.00074-88.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
Methyl chloride	0.00075-09.2	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Styrene	0.00100-42.5	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethene	0.00127-18.4	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene	0.00108-88.3	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs	9	10.3	1	1	3	3	1	1	5	1	1	8	1	1	1	1	1	5 ST
trans-1,2-Dichloroethene	0.00156-60.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
trans-1,3-Dichloropropene	0.10061-02.6	0.2 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene	0.10110-57.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
Trichloroethene	0.00079-01.6	0.4 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	0.00075-69.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
Vinyl Acetate	0.00108-05.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-
Vinyl chloride	0.00075-01.4	0.6 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)	0.01330-20.7	0.6 U	10.0 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B: Compound was found in the method blank as well as the sample
 U: Compound was analyzed for but not detected at the detection limit shown
 J: Compound was found at a concentration below the detection limit, value estimated
 E: Concentration exceeds instrument calibration range, value estimated.
 D: Result taken from analysis at a secondary dilution.
 U*: Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value
 ST: Standard
 NA: Not Analyzed
 : Parameter exceeds Standard/Guidance Value
 NS: Not Sampled
 J*: Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

QUALIFIERS	NOTES
B. Compound was found in the method blank as well as the sample	GY: Guidance Value
U. Compound was analyzed for but not detected at the detection limit shown.	ST: Standard
J. Compound was found at a concentration below the detection limit, value estimated	NA: Not Analyzed
E. Concentration exceeds instrument calibration range, value estimated	NS: Not Sampled
D. Result taken from analysis at a secondary dilution	*: Parameter exceeds Standard/Guidance Value
U*. Result qualified as non-detect based on validation criteria	*: Result qualified as estimated based on validation criteria

APPENDIX A-3

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

Sample ID	10/28/1997	1/28/1998	12/1/2000	1/31/2001	11/20/2002	8/22/2003	5/20/2004	02/28/05	11/28/06	02/22/07	11/4/2008	8/14/2009	MW-071 2/8/2010	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane	0.6 U	10.0 U	6.6	2.6 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Dichloroethane	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloropropene	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropene	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromoethane	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
1,2-Dichloroethane	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethene (total)	0.4 U	10.0 U	5 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
2-Butanone	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Acetone	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acrylonitrile	NA	NA	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromotrichloromethane	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Carbon tetrachloride	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloromethane	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethene	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	19	5 U	5 U	5 ST
cis-1,3-Dichloropropene	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Styrene	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethene	0.4 U	10.0 U	5 U	10 U	5 U	5 U	1 J	5 U	5 U	5 U	4 J*	5 U	5 U	5 ST
Toluene	0.4 U	10.0 U	5 U	10 U	3 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs	U	U	6	2.6	3	U	1	U	U	U	23	U	U	
trans-1,2-Dichloroethene	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene	0.2 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethene	0.4 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Vinyl chloride	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)	0.6 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B: Compound was found in the method blank as well as the sample

GV: Guidance Value

J: Compound was analyzed for but not detected at the detection limit shown.

J*: Compound was found at a concentration below the detection limit; value estimated

E: Concentration exceeds instrument calibration range; value estimated

D: Result taken from analysis at a secondary dilution

U*: Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value

ST: Standard

NA: Not Analyzed

NS: Not Sampled

J*: Result qualified as estimated based on validation criteria

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

QUALIFIERS	NOTES
B. Compound was found in the method blank as well as the sample	GV: Guidance Value
U. Compound was analyzed for but not detected at the detection limit shown	ST: Standard
J. Compound was found at a concentration below the detection limit, value estimated	NA: Not Analyzed
E. Concentration exceeds instrument calibration range, value estimated.	NS: Not Sampled
D. Result taken from analysis at a secondary dilution	J*: Result qualified as non-detect based on validation criteria
U*. Result qualified as non-detect based on validation criteria	

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

Sample ID	Date of Collection	CAS #	MW-10D 10/30/1997 (ug/l)	MW-10D 2/27/1998 (ug/l)	MW-10D 12/17/2000 (ug/l)	MW-10D 2/5/2001 (ug/l)													NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatiles Organic Compounds																			
1,1,1,2-Tetrachloroethane		000610-20-6	NA	NA	5 U	10 U	10 U												5 ST
1,1,1-Trichloroethane		000071-55-6	3 J	10 U	5 U	5 U	12 J												5 ST
1,1,2,2-Tetrachloroethane		000079-34-5	2 U	3 U	5 U	10 U	10 U												5 ST
1,1,2-Trichloroethane		000079-00-5	2 U	10 U	5 U	10 U	10 U												5 ST
1,1-Dichloroethane		000075-34-3	8 J	3 U	1 J	1 J	17 J												5 ST
1,1-Dichloroethane		000075-34-4	14 U	10 U	5 U	10 U	10 U												5 ST
1,1-Dichloropropene		000563-58-6	NA	NA	NA	10 U	10 U												0.04 ST
1,2-Trichloropropane		000096-18-4	NA	NA	5 U	10 U	10 U												0.04 ST
1,2-Dibromo-3-chloropropane		000096-12-8	NA	NA	5 U	10 U	10 U												5 ST
1,2-Dibromomethane		000106-93-4	NA	NA	5 U	10 U	10 U												5 ST
1,2-Dichlorobenzene		000095-50-1	NA	NA	5 U	10 U	10 U												3 ST
1,2-Dichloroethane		000107-06-2	14 U	10 U	5 U	10 U	10 U												0.6 ST
1,2-Dichloroethane (total)		000540-59-0	26 U	10 U	NA	10 U	10 U												5 ST
1,2-Dichloropropane		000078-87-5	14 U	10 U	5 U	10 U	10 U												1 ST
1,4-Dichlorobenzene		000106-46-7	NA	NA	5 U	10 U	10 U												3 ST
2-Butanone		000078-93-3	22 U	7 U	5 U	10 U	10 U												50 GV
4-Hexanone		000591-78-6	14 U	7 U	5 U	10 U	10 U												50 GV
4-Methyl-2-pentanone		000108-10-1	14 U	6 U	5 U	10 U	10 U												-
Acetone		000067-64-1	3 U	9 U	5 U	10 U	10 U												50 GV
Acrylonitrile		000107-13-1	NA	NA	5 U	10 U	10 U												5 ST
Benzene		000071-43-2	14 U	10 U	5 U	10 U	10 U												1 ST
Bromochloromethane		000074-97-5	NA	NA	5 U	10 U	10 U												5 ST
Bromodichloromethane		000075-27-4	18 U	10 U	5 U	10 U	10 U												50 GV
Bromoform		000075-25-2	18 U	10 U	5 U	10 U	10 U												50 GV
Bromomethane		000074-83-9	14 U	10 U	5 U	10 U	10 U												5 ST
Carbon disulfide		000075-15-0	12 U	10 U	5 U	10 U	10 U												60 GV
Carbon tetrachloride		000056-23-5	18 U	10 U	5 U	10 U	10 U												5 ST
Chlorobenzene		000108-90-7	14 U	10 U	5 U	10 U	10 U												5 ST
Chloroethane		000075-00-3	14 U	10 U	5 U	10 U	10 U												5 ST
Chloroform		000067-66-3	14 U	10 U	5 U	10 U	10 U												7 ST
Chloromethane		000074-87-3	14 U	10 U	5 U	10 U	10 U												5 ST
cis-1,2-Dichloroethene		000156-59-2	NA	NA	5 U	10 U	10 U												5 ST
cis-1,3-Dichloropropene		010061-01-5	14 U	10 U	5 U	10 U	10 U												0.4 ST
Dibromochloromethane		000124-48-1	22 U	10 U	5 U	10 U	10 U												50 GV
Dibromomethane		000074-97-3	NA	NA	5 U	10 U	10 U												5 ST
Ethylbenzene		000100-41-4	14 U	10 U	5 U	10 U	10 U												5 ST
Iodomethane		000074-88-4	NA	NA	5 U	10 U	10 U												5 ST
Methylene chloride		000075-09-2	14 U	10 U	5 U	10 U	10 U												5 ST
Styrene		000100-42-5	14 U	10 U	5 U	10 U	10 U												5 ST
Tetrachloroethene		000127-18-4	14 U	10 U	5 U	10 U	10 U												5 ST
Toluene		000108-88-3	12 U	10 U	5 U	10 U	10 U												5 ST
TOTAL VOCs			11	39.8	1	2.9													
trans-1,2-Dichloroethene		000156-60-5	NA	NA	5 U	10 U	10 U												5 ST
trans-1,3-Dichloropropene		010061-02-6	18 U	10 U	5 U	10 U	10 U												0.4 ST
trans-1,4-Dichloro-2-butene		000110-57-6	NA	NA	5 U	10 U	10 U												5 ST
Trichloroethene		000079-01-6	14 U	2 U	5 U	10 U	10 U												5 ST
Trichlorofluoromethane		000075-69-4	NA	NA	5 U	10 U	10 U												5 ST
Vinyl Acetate		000108-05-4	NA	NA	5 U	10 U	10 U												-
Vinyl chloride		000075-01-4	14 U	10 U	5 U	10 U	10 U												2 ST
Xylene (total)		001330-20-7	16 U	10 U	5 U	10 U	10 U												5 ST

QUALIFIERS
 B Compound was found in the method blank as well as the sample
 C Compound was analyzed for but not detected at the detection limit shown
 J Compound was found at a concentration below the detection limit, value estimated
 E Concentration exceeds instrument calibration range, value estimated
 D Result taken from analysis at a secondary dilution
 U* Result qualified as non-detect based on validation criteria

NOTES
 GV Guidance Value
 ST Standard
 NA Not Analyzed
 NS Not Sampled
 J* Result qualified as estimated based on validation criteria

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

QUALIFIERS	NOTES
B. Compound was found in the method blank as well as the sample	GV: Guidance Value
U. Compound was analyzed for but not detected at the detection limit shown.	ST: Standard
J. Compound was found at a concentration below the detection limit, value estimated	NA: Not Analyzed
E. Concentration exceeds instrument calibration range: value estimated	Parameter exceeds Standard/Guidance Value
D. Result taken from analysis at a secondary dilution.	NS: Not Sampled
D. Result taken from analysis at a secondary dilution.	J*: Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

QUALIFIERS	NOTES
B: Compound was found in the method blank as well as the sample	GV: Guidance Value
U: Compound was analyzed for but not detected at the detection limit shown.	ST: Standard
J: Compound was found at a concentration below the detection limit, value estimated	NA: Not Analyzed
E: Concentration exceeds instrument calibration range; value estimated	NS: Not Sampled
D: Result taken from analysis at a secondary dilution.	Parameter exceeds Standard/Guidance Value
U*: Result qualified as non-detect based on validation criteria	J*: Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

QUALIFIERS

B: Compound was found in the method blank as well as the sample
U: Compound was analyzed for but not detected at the detection limit shown.
J: Compound was found at a concentration below the detection limit, value estimated
E: Concentration exceeds instrument calibration range, value estimated.
D: Result taken from analysis at a secondary dilution.

NOTES

GV: Guidance Value
ST: Standard
NA: Not Analyzed
NS: Not Sampled
P: Parameter exceeds Standard/Guidance Value
J*: Result qualified as estimated based on validation criteria

APPENDIX A-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	CAS #	MW-111 10/31/1997 (ug/l)	MW-111 1/28/1998 (ug/l)	MW-111 12/13/2000 (ug/l)	MW-111 2/7/2001 (ug/l)	MW-111 11/21/2002 (ug/l)	MW-111 8/21/2003 (ug/l)	MW-111 5/21/2004 (ug/l)	MW-111 02/24/05 (ug/l)	MW-111 11/29/06 (ug/l)	MW-111 02/28/07 (ug/l)	MW-111 11/4/2008 (ug/l)	MW-111 8/13/2009 (ug/l)	MW-111 2/5/2010 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatiles Organic Compounds															
1,1,1,2-Tetrachloroethane	000630-20-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane	000071-55-6	2 J	10 U	10 U	19	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	20 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane	000079-00-5	20 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-34-3	7 J	3.2 J	52	100	5 U	2 J	11	1 J	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-35-4	140 U	10 U	NA	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000631-58-6	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromomethane	000106-93-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichloroethane	000107-06-2	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethane (total)	000340-59-0	260 U	10 U	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
2-Butanone	000078-93-3	220 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone	000591-78-6	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone	000108-10-1	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acetone	000067-64-1	340 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acrylonitrile	000107-13-1	NA	NA	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene	000071-43-2	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane	000074-97-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane	000075-27-4	180 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromoform	000075-25-2	180 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane	000074-83-9	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide	000075-15-0	120 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon tetrachloride	000056-23-5	180 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	000108-90-7	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane	000075-00-3	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform	000067-66-3	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Chloromethane	000074-87-3	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethane	000156-59-2	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane	000124-48-1	220 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane	000074-95-3	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene	000100-41-4	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	000074-88-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride	000075-09-2	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Styrene	000100-42-5	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethane	000127-18-4	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene	000108-88-3	120 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs		9	32	62	120.6	U	2	12	1	0	U	4	U	U	5 U
trans-1,2-Dichloroethane	000156-60-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	180 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethane	000079-01-6	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate	000108-05-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl chloride	000075-01-4	140 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)	001330-20-7	160 U	10 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B: Compound was found in the method blank as well as the sample

U: Compound was analyzed for but not detected at the detection limit shown.

J: Compound was found at a concentration below the detection limit, value estimated

E: Concentration exceeds instrument calibration range, value estimated

D: Result taken from analysis at a secondary dilution

U*: Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value

ST: Standard

NA: Not Analyzed

: Parameter exceeds Standard/Guidance Value

NS: Not Sampled

J*: Result qualified as estimated based on validation criteria

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

QUALIFIERS

B: Compound was found in the method blank as well as the sample
 U: Compound was analyzed for but not detected at the detection limit shown
 J: Compound was found at a concentration below the detection limit, value estimated
 E: Concentration exceeds instrument calibration range; value estimated
 D: Result taken from analysis at a secondary dilution
 U*: Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value
 ST: Standard
 NA: Not Analyzed
 NS: Not Sampled
 J*: Result qualified as estimated based on validation criteria

APPENDIX A-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	CAS #	MW-12D 10/31/1997 (ug/l)	MW-12D 1/28/1998 (ug/l)	MW-12D 12/8/2000 (ug/l)	MW-12D 2/7/2001 (ug/l)	MW-12D 11/21/2002 (ug/l)	MW-12D 8/21/2003 (ug/l)	MW-12D 5/21/2004 (ug/l)	MW-12D 02/24/05 (ug/l)	MW-12D 11/29/06 (ug/l)	MW-12D 02/21/07 (ug/l)	MW-12D 11/4/2008 (ug/l)	MW-12D 8/13/2009 (ug/l)	MW-12D 2/5/2010 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,2-Trichloroethane	000630-20-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane	000071-55-6	180 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U*	5 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	220 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane	000079-00-5	200 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-34-3	120 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane	000075-35-4	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloropropane	000563-58-6	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000096-18-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromoethane	000106-93-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
1,2-Dichloroethane	000107-06-2	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethane (total)	000340-59-0	260 U	100 U	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
2-Butanone	000078-93-3	220 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Hexanone	000591-78-6	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U*	5 U	50 GV
4-Methyl-2-pentanone	000108-10-1	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acetone	000067-64-1	340 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 B1	50 GV
Acrylonitrile	000107-13-1	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene	000071-43-2	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane	000074-97-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane	000075-27-4	180 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromomethane	000075-25-2	180 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromodichloromethane	000074-83-9	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon disulfide	000075-15-0	120 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon tetrachloride	000056-23-5	180 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene	000108-90-7	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane	000075-00-3	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform	000067-66-3	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	1 J	5 U	5 U	5 U	5 U	7 ST
Chloromethane	000074-87-3	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethane	000156-59-2	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane	000124-48-1	220 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane	000074-95-3	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene	000100-41-4	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane	000074-88-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride	000075-09-2	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U*	5 U	5 ST
Styrene	000100-42-5	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethene	000127-18-4	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene	000108-88-3	120 U	100 U	5 U	10 U	2 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs	U	U	U	U	U	2	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	000156-60-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	180 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U*	5 U	5 ST
Trichloroethene	000079-01-6	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate	000108-05-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl chloride	000075-01-4	140 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)	001330-20-7	160 U	100 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B: Compound was found in the method blank as well as the sample
 U: Compound was analyzed for but not detected at the detection limit shown
 J: Compound was found at a concentration below the detection limit, value estimated
 E: Concentration exceeds instrument calibration range, value estimated
 D: Result taken from analysis at a secondary dilution
 U*: Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value
 ST: Standard
 NA: Not Analyzed
 NS: Not Sampled
 J*: Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL

[illegible]

QUALIFIERS

B. Compound was found in the method blank as well as the sample

U· Compound was analyzed for but not detected at the detection limit shown

J Compound was found at a concentration below the detection limit, value estimated

E: Concentration exceeds instrument calibration range; value estimated

D: Result taken from analysis at a secondary dilution.

U* Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value

ST: Standard

NA: Not Analyzed

: Parameter exceeds Standard/Guidance Value

NS: Not Sampled

J*: Result qualified as estimated based on validation criteria

APPENDIX A-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	Date of Collection	CAS #	MW-12S 10/31/1997 (ug/l)	MW-12S 1/10/1998 (ug/l)	MW-12S 12/7/2000 (ug/l)	MW-12S 2/5/2001 (ug/l)	MW-12S 11/21/2002 (ug/l)	MW-12S 8/21/2003 (ug/l)	MW-12S 5/21/2004 (ug/l)	MW-12S 02/24/05 (ug/l)	MW-12S 11/29/06 (ug/l)	MW-12S 02/23/07 (ug/l)	MW-12S 11/4/2008 (ug/l)	MW-12S 8/13/2009 (ug/l)	MW-12S 2/5/2010 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD GUIDANCE VALUE
1,1,1,2-Tetrachloroethane		000630-20-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,1-Trichloroethane		000071-55-6	1.80 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2,2-Tetrachloroethane		000079-34-5	2.20 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1,2-Trichloroethane		000079-00-3	1.20 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane		000075-34-3	1.20 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane		000075-35-4	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,1-Dichloroethane		000563-58-6	NA	NA	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloroethane		000096-18-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dichloroethane		000096-12-8	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.04 ST
1,2-Dibromo-3-chloropropane		000106-93-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,2-Dichlorobenzene		000095-50-1	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3 ST
1,2-Dichloroethane		000107-06-2	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.6 ST
1,2-Dichloroethane (total)		000540-59-0	2.60 U	10.0 U	NA	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 ST
1,2-Dichloropropane		000078-87-5	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
1,4-Dichlorobenzene		000106-46-7	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
2-Butanone		000078-93-3	2.20 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
2-Hexanone		000591-78-6	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
4-Methyl-2-pentanone		000108-10-1	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Acetone		000067-64-1	3.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Acrylonitrile		000107-13-1	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Benzene		000071-43-2	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 ST
Bromochloromethane		000074-97-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Bromodichloromethane		000075-27-4	1.80 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromofluoromethane		000075-25-2	1.80 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Bromosulfide		000074-83-9	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	60 GV
Carbon disulfide		000075-15-0	1.20 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Carbon tetrachloride		000056-23-5	1.80 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chlorobenzene		000108-90-7	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroethane		000075-00-3	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Chloroform		000067-66-3	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7 ST
Chloromethane		000074-82-3	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,2-Dichloroethene		000156-59-2	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
cis-1,3-Dichloropropene		010061-01-5	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
Dibromochloromethane		000124-48-1	2.20 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 GV
Dibromomethane		000074-95-3	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Ethylbenzene		000100-41-4	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Iodomethane		000074-88-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Methylene chloride		000075-09-2	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U*	5 U	5 ST
Styrene		000100-42-5	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Tetrachloroethene		000127-18-4	1.40 U	10.0 U	5 U	10 U	2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Toluene		000108-88-3	1.20 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
TOTAL VOCs			U	U	U	U	2	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene		000156-60-5	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
trans-1,3-Dichloropropene		010061-02-6	1.80 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 ST
trans-1,4-Dichloro-2-butene		000110-57-6	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichloroethene		000079-01-6	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Trichlorofluoromethane		000075-69-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST
Vinyl Acetate		000108-05-4	NA	NA	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	-
Vinyl chloride		000075-01-4	1.40 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 ST
Xylene (total)		001330-20-7	1.60 U	10.0 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 ST

QUALIFIERS

B Compound was found in the method blank as well as the sample
 U Compound was analyzed for but not detected at the detection limit shown.
 J Compound was found at a concentration below the detection limit, value estimated
 E Concentration exceeds instrument calibration range, value estimated
 D Result taken from analysis at a secondary dilution
 U* Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value
 ST: Standard
 NA: Not Analyzed
 NS: Not Sampled
 J*: Result qualified as estimated based on validation criteria

APPENDIX A-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	CAS #	MW-13D (ug/l)	MW-13D (ug/l)	MW-13D (ug/l)	MW-13D (ug/l)	MW-13D (ug/l)	MW-13D (ug/l)	MW-13D (ug/l)	MW-13D (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	000630-20-6	NA	NA	NA	NA	10 U				5 ST
1,1,1-Trichloroethane	000071-55-6	1.80 U	10.0 U	5 U	1.2 J					5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	2.20 U	10.0 U	5 U	10 U					5 ST
1,1,2-Trichloroethane	000079-00-5	2.00 U	10.0 U	5 U	10 U					5 ST
1,1-Dichloroethane	000075-34-3	4 J	3.6 J	6	91 J					5 ST
1,1-Dichloroethane	000075-35-4	1.40 U	2.0 J	2 J	1.8 J					5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	10 U					5 ST
1,2,3-Trichloropropene	000096-18-4	NA	NA	5 U	10 U					0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	5 U	10 U					0.04 ST
1,2-Dibromoethane	000106-93-4	NA	NA	5 U	10 U					5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	5 U	10 U					3 ST
1,2-Dichloroethane	000107-06-2	1.40 U	10.0 U	5 U	10 U					0.6 ST
1,2-Dichloroethane (total)	000540-59-0	31	34	NA	10 U					5 ST
1,2-Dichloropropene	000078-87-5	1.40 U	10.0 U	5 U	10 U					1 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	5 U	1.3 J					3 ST
2-Butanone	000078-93-3	2.20 U	10.0 U	5 U	10 U					30 GV
2-Hexanone	000591-78-6	1.40 U	10.0 U	5 U	10 U					50 GV
4-Methyl-2-pentanone	000108-10-1	1.40 U	10.0 U	5 U	10 U					50 GV
Acetone	000067-64-1	3.40 U	10.0 U	5 U	10 U					50 GV
Acrylonitrile	000107-13-1	NA	NA	5 U	50 U					5 ST
Benzene	000071-43-2	1.40 U	2.7 J	5 U	1.0 J					1 ST
Bromochloromethane	000074-97-5	NA	NA	5 U	10 U					5 ST
Bromodichloromethane	000075-27-4	1.80 U	10.0 U	5 U	10 U					50 GV
Bromoform	000075-25-2	1.80 U	10.0 U	5 U	10 U					50 GV
Bromomethane	000074-83-9	1.40 U	10.0 U	5 U	10 U					5 ST
Carbon disulfide	000075-15-0	1.20 U	10.0 U	5 U	10 U					60 GV
Carbon tetrachloride	000056-23-5	1.80 U	10.0 U	5 U	10 U					5 ST
Chlorobenzene	000108-90-7	2 J	4.1 J	5 U	1.7 J					5 ST
Chloroethane	000075-00-3	3 J	10.0 U	2 J	2.6 J					5 ST
Chloroform	000067-66-3	1.40 U	10.0 U	5 U	10 U					7 ST
Chloromethane	000074-87-3	1.40 U	10.0 U	5 U	10 U					5 ST
cis-1,2-Dichloroethene	000156-59-2	NA	NA	140	210 E					5 ST
cis-1,3-Dichloropropene	010061-01-5	1.40 U	10.0 U	5 U	10 U					0.4 ST
Dibromochloromethane	000124-48-1	2.20 U	10.0 U	5 U	10 U					50 GV
Dibromomethane	000074-95-3	NA	NA	5 U	10 U					5 ST
Ethylbenzene	000100-41-4	1.40 U	10.0 U	5 U	10 U					5 ST
Iodomethane	000074-88-4	NA	NA	5 U	10 U					5 ST
Methylene chloride	000075-09-2	1.40 U	10.0 U	5 U	10 U					5 ST
Styrene	000100-42-5	1.40 U	10.0 U	5 U	10 U					5 ST
Tetrachloroethene	000127-18-4	1 J	10.0 U	690 D	900 E					5 ST
Toluene	000108-88-3	1.20 U	2.5 J	5 U	10 U					5 ST
TOTAL VOCs		44	51.8	896	1,208.7					
trans-1,2-Dichloroethene	000156-60-5	NA	NA	5 U	1 J					5 ST
trans-1,3-Dichloropropene	010061-02-6	1.80 U	10.0 U	5 U	10 U					0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	NA	NA	NA	10 U					5 ST
Trichloroethene	000079-01-6	1 J	2.9 J	48	68					5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	5 U	10 U					5 ST
Vinyl Acetate	000108-05-4	NA	NA	5 U	10 U					5 ST
Vinyl chloride	000075-01-4	2 J	10.0 U	8	11					2 ST
Xylene (total)	001330-20-7	1.60 U	10.0 U	5 U	10 U					5 ST

QUALIFIERS

B: Compound was found in the method blank as well as the sample

U: Compound was analyzed for but not detected at the detection limit shown

J: Compound was found at a concentration below the detection limit, value estimated

E: Concentration exceeds instrument calibration range, value estimated

D: Result taken from analysis at a secondary dilution

U*: Result qualified as non-detect based on validation criteria

NOTES

GV: Guidance Value

ST: Standard

NA: Not Analyzed

Parameter exceeds Standard/Guidance Value

NS: Not Sampled

J*: Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

QUALIFIERS	NOTES
B: Compound was found in the method blank as well as the sample	GV: Guidance Value
U: Compound was analyzed for but not detected at the detection limit shown	ST: Standard
J: Compound was found at a concentration below the detection limit, value estimated	NA: Not Analyzed
E: Concentration exceeds instrument calibration range, value estimated	ES: Parameter exceeds Standard/Guidance Value
D: Result taken from analysis at a secondary dilution	NS: Not Sampled
U*: Result qualified as non-detect based on validation criteria	J*: Result qualified as estimated based on validation criteria

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

QUALIFIERS	NOTES
B Compound was found in the method blank as well as the sample	CV: Guidance Value
U Compound was analyzed for but not detected at the detection limit shown.	ST: Standard
J Compound was found at a concentration below the detection limit, value estimated	NA: Not Analyzed
E Concentration exceeds instrument calibration range, value estimated	Parameter exceeds Standard/Guidance Value
D Result taken from analysis at a secondary dilution	NS: Not Sampled
U* Result qualified as non-detect based on validation criteria	J*: Result qualified as estimated based on validation criteria

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID	CAS #	MW-141 (ug/l)	MW-141 2/3/1998 (ug/l)	MW-141 12/11/2000 (ug/l)	MW-141 2/6/2001 (ug/l)																NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatile Organic Compounds																					
1,1,1,2-Tetrachloroethane	000630-20-6	NA	NA	5 U	10 U																5 ST
1,1,1-Trichloroethane	000071-55-6	1.80 U	10.0 U	5 U	10 U																5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	2.20 U	10.0 U	5 U	10 U																5 ST
1,1,2-Trichloroethane	000079-00-5	2.00 U	10.0 U	5 U	10 U																5 ST
1,1-Dichloroethane	000075-34-3	1.20 U	10.0 U	5 U	10 U																5 ST
1,1-Dichloroethene	000075-35-4	1.40 U	10.0 U	5 U	10 U																5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	10 U																5 ST
1,2,3-Trichloropropene	000096-18-4	NA	NA	5 U	10 U																0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	5 U	10 U																0.04 ST
1,2-Dibromoethane	000106-93-4	NA	NA	5 U	10 U																5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	5 U	10 U																3 ST
1,2-Dichloroethane	000107-06-2	1.40 U	10.0 U	5 U	10 U																0.6 ST
1,2-Dichloroethene (total)	000540-59-0	2.60 U	10.0 U	NA	10 U																5 ST
1,2-Dichloropropane	000078-87-5	1.40 U	10.0 U	5 U	10 U																1 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	5 U	10 U																3 ST
2-Butanone	000078-93-3	2.20 U	10.0 U	5 U	10 U																50 GV
2-Hexanone	000591-78-6	1.40 U	10.0 U	5 U	10 U																50 GV
4-Methyl-2-pentanone	000108-10-1	1.40 U	10.0 U	5 U	10 U																-
Acetone	000067-64-1	3.40 U	5.5 J	5 U	2 J																50 GV
Acrylonitrile	000107-13-1	NA	NA	5 U	50 U																5 ST
Benzene	000071-43-2	1.40 U	10.0 U	5 U	10 U																1 ST
Bromochloromethane	000074-97-5	NA	NA	5 U	10 U																5 ST
Bromodichloromethane	000075-27-4	1.80 U	10.0 U	5 U	10 U																50 GV
Bromoflorm	000075-25-2	1.80 U	10.0 U	5 U	10 U																50 GV
Bromomethane	000074-83-9	1.40 U	10.0 U	5 U	10 U																5 ST
Carbon disulfide	000075-15-0	1.20 U	10.0 U	5 U	10 U																60 GV
Carbon tetrachloride	000056-23-5	1.80 U	10.0 U	5 U	10 U																5 ST
Chlorobenzene	000108-90-7	1.40 U	10.0 U	5 U	2.8 J																5 ST
Chloroethane	000075-00-3	8 J	6.9 J	3 J	4.3 J																5 ST
Chloroform	000067-66-3	1.40 U	10.0 U	5 U	10 U																7 ST
Chloromethane	000074-87-3	1.40 U	10.0 U	5 U	10 U																5 ST
cis-1,2-Dichloroethene	000156-59-2	NA	NA	5 U	10 U																5 ST
cis-1,3-Dichloropropene	010061-01-5	1.40 U	10.0 U	5 U	10 U																0.4 ST
Dibromochloromethane	000124-48-1	2.20 U	10.0 U	5 U	10 U																50 GV
Dibromomethane	000074-95-3	NA	NA	5 U	10 U																5 ST
Ethylbenzene	000100-41-4	1.40 U	10.0 U	5 U	10 U																5 ST
Iodomethane	000074-88-4	NA	NA	5 U	10 U																5 ST
Methylene chloride	000075-09-2	1.40 U	10.0 U	5 U	10 U																5 ST
Styrene	000100-42-5	1.40 U	10.0 U	5 U	10 U																5 ST
Tetrachloroethene	000127-18-4	1.40 U	10.0 U	5 U	10 U																5 ST
Toluene	000108-88-3	1.20 U	10.0 U	5 U	10 U																5 ST
TOTAL VOCs		8	12.4	3	9.1																
trans-1,2-Dichloroethene	000156-60-5	NA	NA	5 U	10 U																5 ST
trans-1,3-Dichloropropene	010061-02-6	1.80 U	10.0 U	5 U	10 U																0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	NA	NA	5 U	10 U																5 ST
Trichloroethene	000079-01-6	1.40 U	10.0 U	5 U	10 U																5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	5 U	10 U																5 ST
Vinyl Acetate	000108-05-4	NA	NA	5 U	10 U																-
Vinyl chloride	000075-01-4	1.40 U	10.0 U	5 U	10 U																2 ST
Xylene (total)	001330-20-7	1.60 U	10.0 U	5 U	10 U																5 ST

QUALIFIERS
B: Compound was found in the method blank as well as the sample
U: Compound was analyzed for but not detected at the detection limit shown
J: Compound was found at a concentration below the detection limit, value estimated
E: Concentration exceeds instrument calibration range, value estimated
D: Result taken from analysis at a secondary dilution
U*: Result qualified as non-detect based on validation criteria

NOTES
GV: Guidance Value
ST: Standard
NA: Not Analyzed
NS: Not Sampled
J*: Result qualified as estimated based on validation criteria

**SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS**

Sample ID	CAS #	MW-14S 11/3/1997 (ug/l)	MW-14S 2/3/1998 (ug/l)	MW-14S 12/1/2000 (ug/l)	MW-14S 2/6/2001 (ug/l)						NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
Volatle Organic Compounds											
1,1,1,2-Tetrachloroethane	000610-20-6	NA	NA	5 U	10 U						5 ST
1,1,1-Trichloroethane	000071-55-6	180 U	100 U	5 U	10 U						5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	220 U	100 U	5 U	10 U						5 ST
1,1,2-Trichloroethane	000079-00-5	200 U	100 U	5 U	10 U						5 ST
1,1-Dichloroethane	000075-34-3	120 U	100 U	5 U	10 U						5 ST
1,1-Dichloroethene	000075-35-4	140 U	100 U	5 U	10 U						5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	10 U						5 ST
1,2,3-7-Trichloropropane	000096-18-4	NA	NA	5 U	10 U						0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	NA	NA	5 U	10 U						0.04 ST
1,2-Dibromomethane	000106-93-4	NA	NA	5 U	10 U						5 ST
1,2-Dichlorobenzene	000095-50-1	NA	NA	5 U	10 U						3 ST
1,2-Dichloroethane	000107-06-2	140 U	100 U	5 U	10 U						0.6 ST
1,2-Dichloroethene (total)	000540-59-0	260 U	100 U	NA	10 U						5 ST
1,2-Dichloropropane	000078-87-5	140 U	100 U	5 U	10 U						1 ST
1,4-Dichlorobenzene	000106-46-7	NA	NA	5 U	10 U						3 ST
2-Butanone	000078-93-3	220 U	100 U	5 U	10 U						50 GV
2-Hexanone	000591-78-6	140 U	100 U	5 U	10 U						50 GV
4-Methyl-2-pentanone	000108-10-1	140 U	100 U	5 U	10 U						-
Acetone	000067-64-1	340 U	100 U	5 U	10 U						50 GV
Acrylonitrile	000107-13-1	NA	NA	5 U	50 U						5 ST
Benzene	000071-43-2	140 U	100 U	5 U	10 U						1 ST
Bromochloromethane	000074-97-5	NA	NA	5 U	10 U						5 ST
Bromodichloromethane	000075-27-4	180 U	100 U	5 U	10 U						50 GV
Bromoform	000075-25-2	180 U	100 U	5 U	10 U						50 GV
Bromomethane	000074-83-9	140 U	100 U	5 U	10 U						5 ST
Carbon disulfide	000075-15-0	120 U	100 U	5 U	10 U						60 GV
Carbon tetrachloride	000056-23-5	180 U	100 U	5 U	10 U						5 ST
Chlorobenzene	000108-90-7	140 U	100 U	5 U	10 U						5 ST
Chloroethane	000075-00-3	140 U	100 U	5 U	10 U						5 ST
Chloroform	000067-66-3	140 U	2 I J	5 U	10 U						7 ST
Chloromethane	000074-87-3	140 U	100 U	5 U	10 U						5 ST
cis-1,2-Dichloroethene	000156-59-2	NA	NA	5 U	10 U						5 ST
trans-1,3-Dichloropropene	010061-01-5	140 U	100 U	5 U	10 U						0.4 ST
Dibromochloromethane	000124-48-1	220 U	100 U	5 U	10 U						50 GV
Dibromomethane	000074-95-3	NA	NA	5 U	10 U						5 ST
Ethylbenzene	000100-41-4	140 U	100 U	5 U	10 U						5 ST
Iodomethane	000074-88-4	NA	NA	5 U	10 U						5 ST
Methylene chloride	000075-09-2	140 U	2 O J	5 U	10 U						5 ST
Styrene	000100-42-5	140 U	100 U	5 U	10 U						5 ST
Tetrachloroethene	000127-18-4	140 U	100 U	5 U	10 U						5 ST
Toluene	000108-88-3	120 U	100 U	5 U	10 U						5 ST
TOTAL VOCs	U	4 I	U	U	U						
trans-1,2-Dichloroethene	000156-60-5	NA	NA	5 U	10 U						5 ST
trans-1,3-Dichloropropene	010061-02-6	180 U	100 U	5 U	10 U						0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	NA	NA	5 U	10 U						5 ST
Trichloroethene	000079-01-6	140 U	100 U	5 U	10 U						5 ST
Trichlorofluoromethane	000075-69-4	NA	NA	5 U	10 U						5 ST
Vinyl Acetate	000108-05-4	NA	NA	5 U	10 U						-
Vinyl chloride	000075-01-4	140 U	100 U	5 U	10 U						2 ST
Vinyl chloride (total)	000130-20-7	160 U	100 U	5 U	10 U						5 ST

QUALIFIERS

B: Compound was found in the method blank as well as the sample.

U: Compound was analyzed for but not detected at the detection limit shown.

J: Compound was found at a concentration below the detection limit, value estimated.

E: Concentration exceeds instrument calibration range, value estimated.

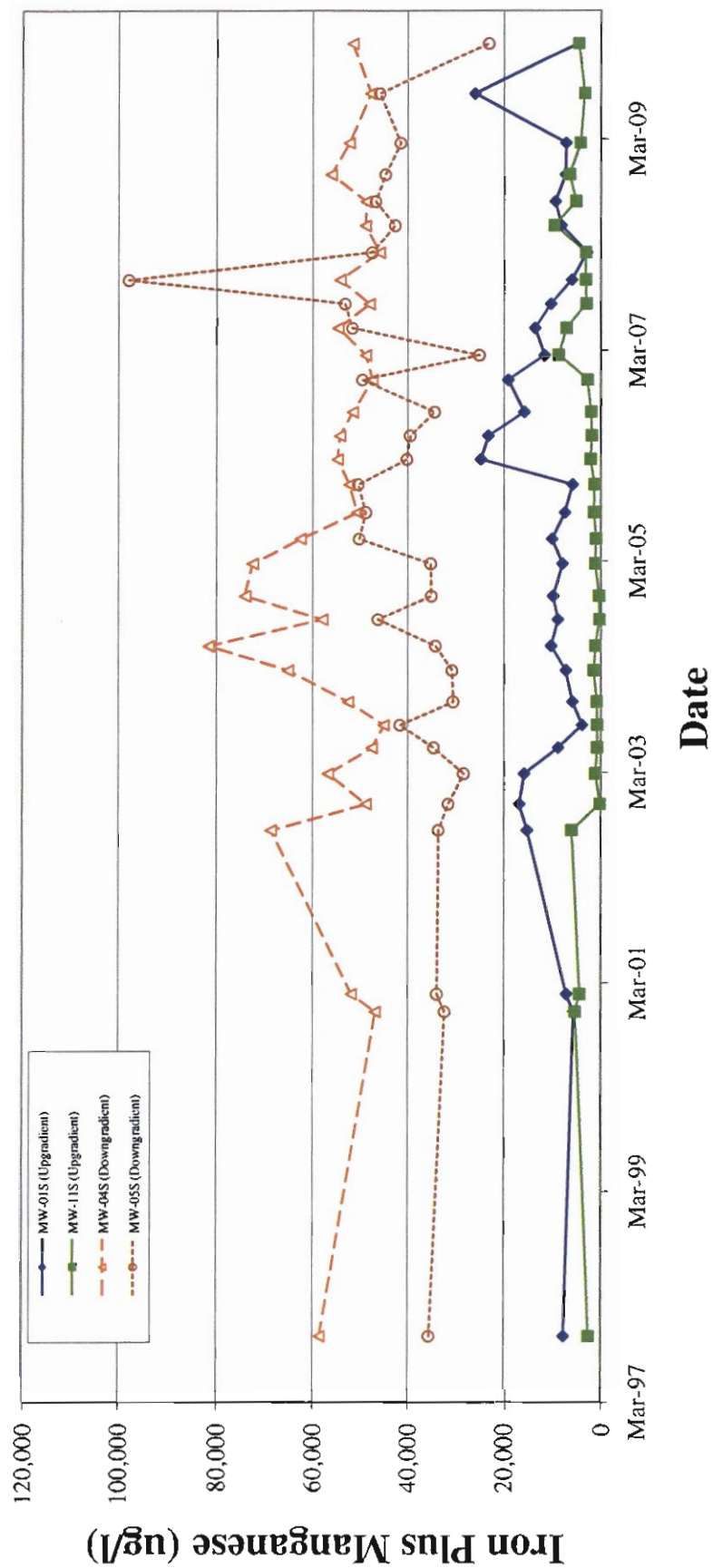
D: Result taken from analysis at a secondary dilution.

Y: Result qualified as non-detect based on validation criteria.

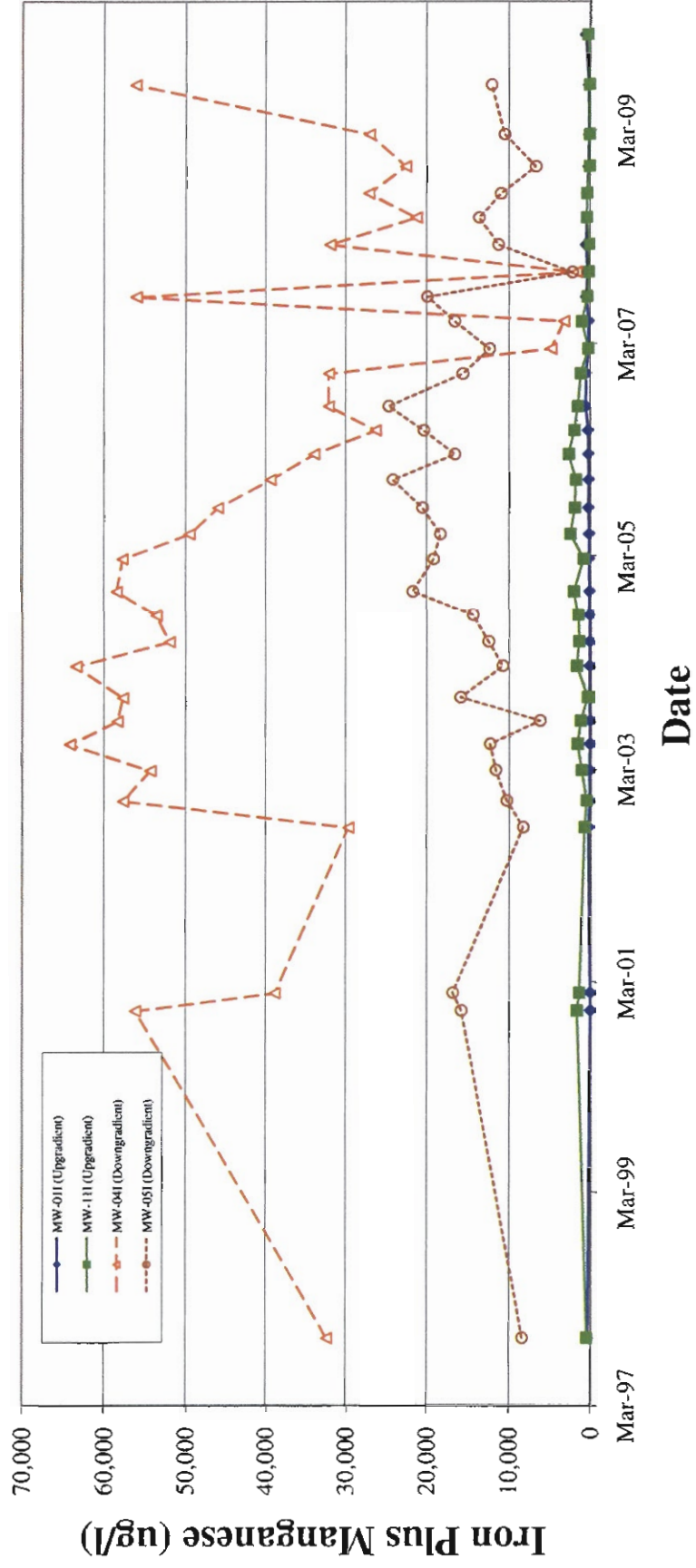
APPENDIX A-4

Water Quality Graphs

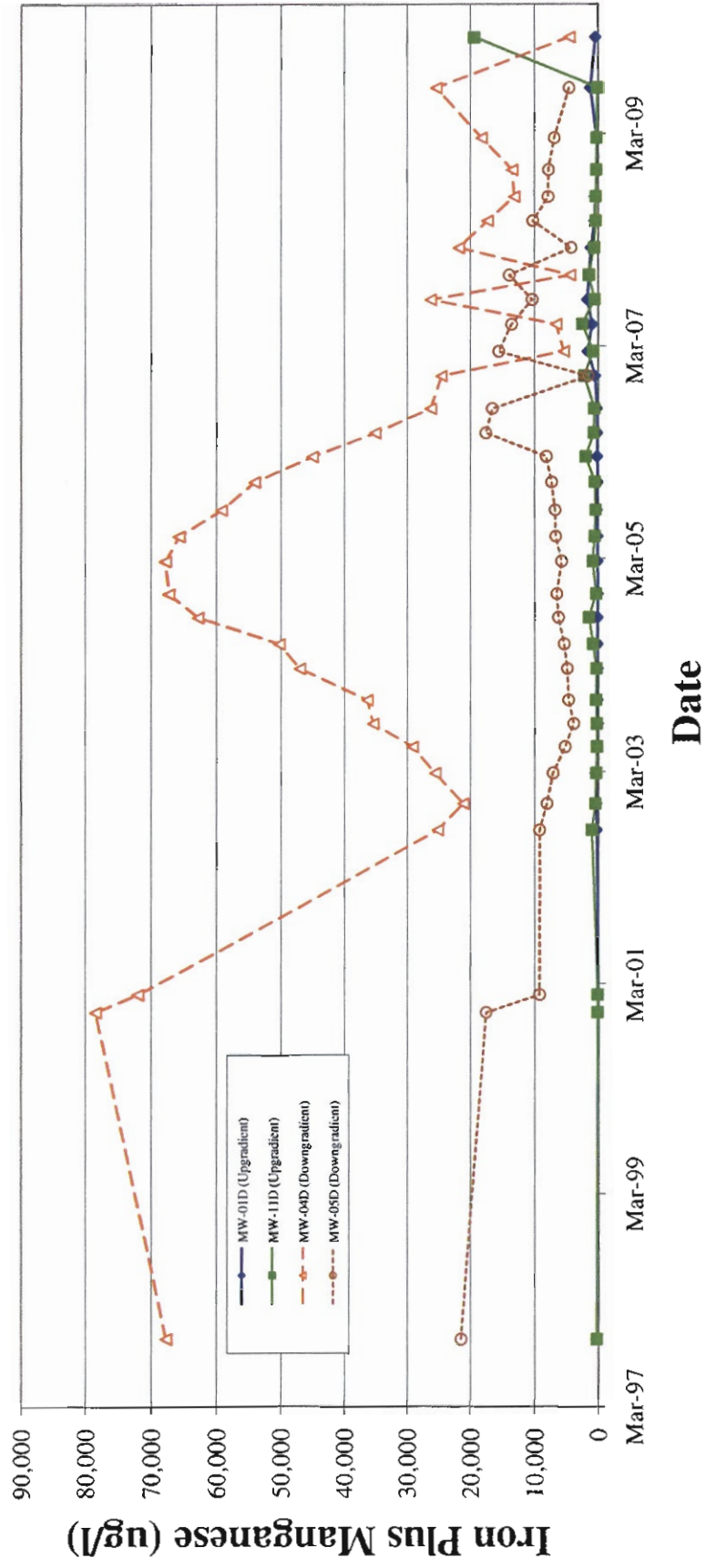
Iron Plus Manganese in Shallow Wells



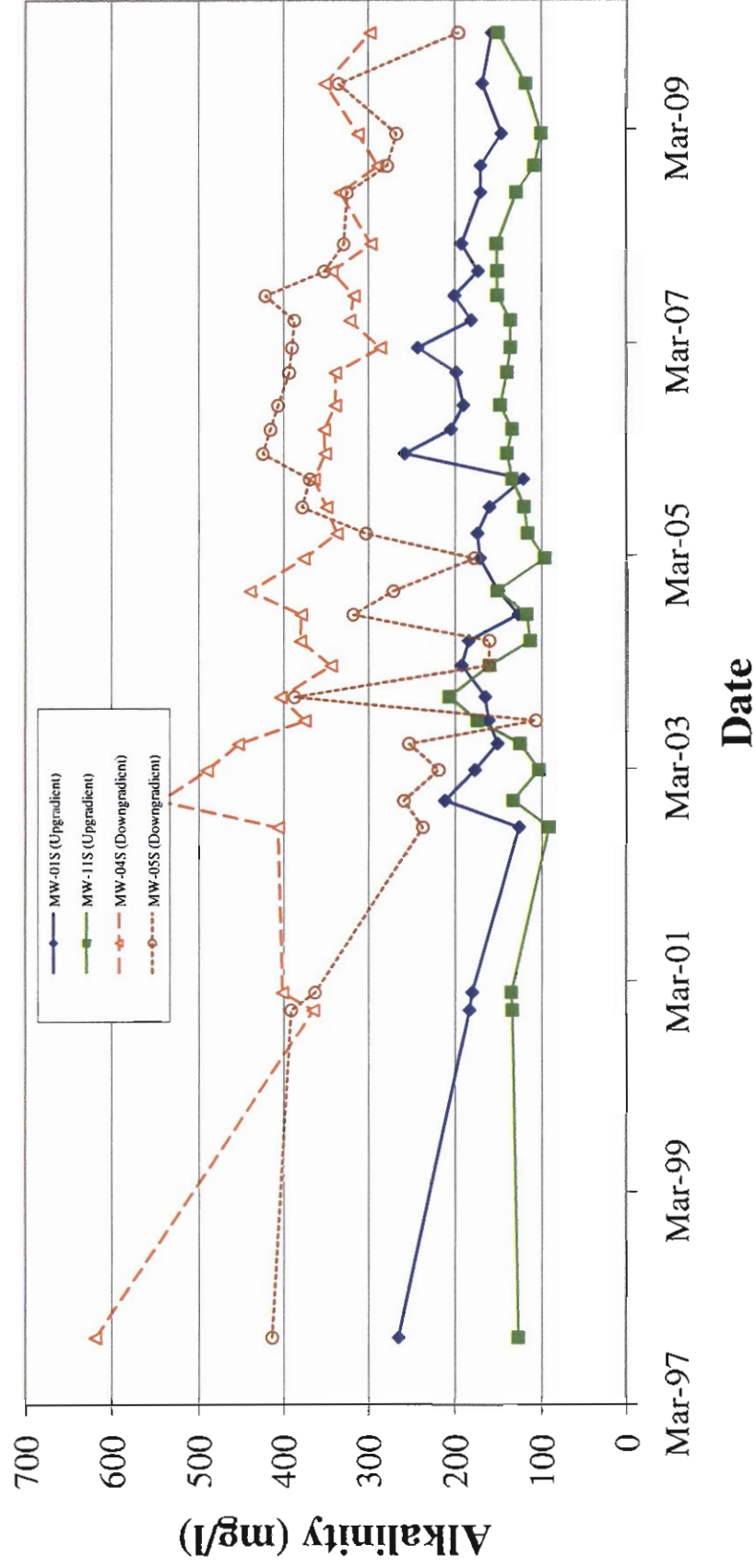
Iron Plus Manganese in Intermediate Wells



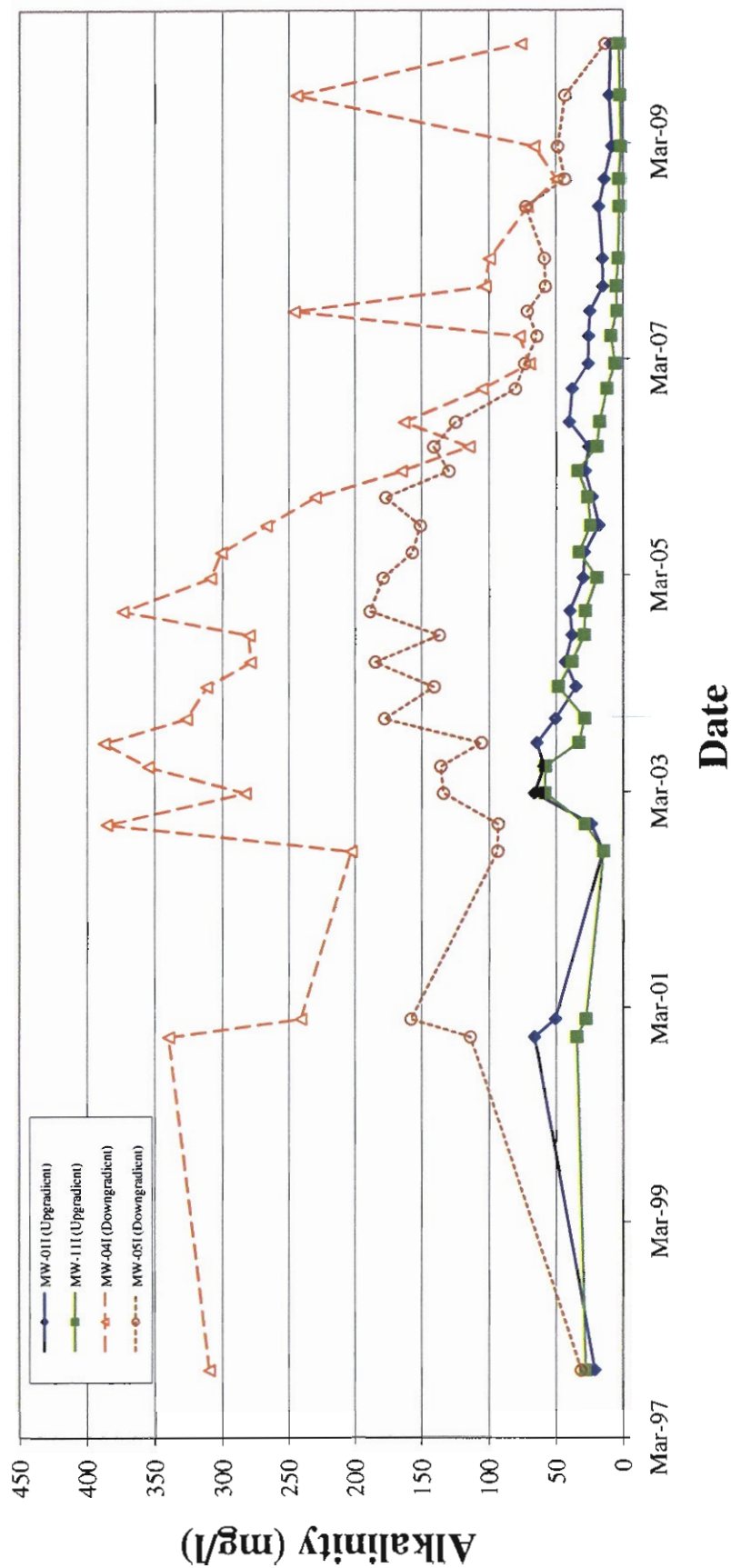
Iron Plus Manganese in Deep Wells



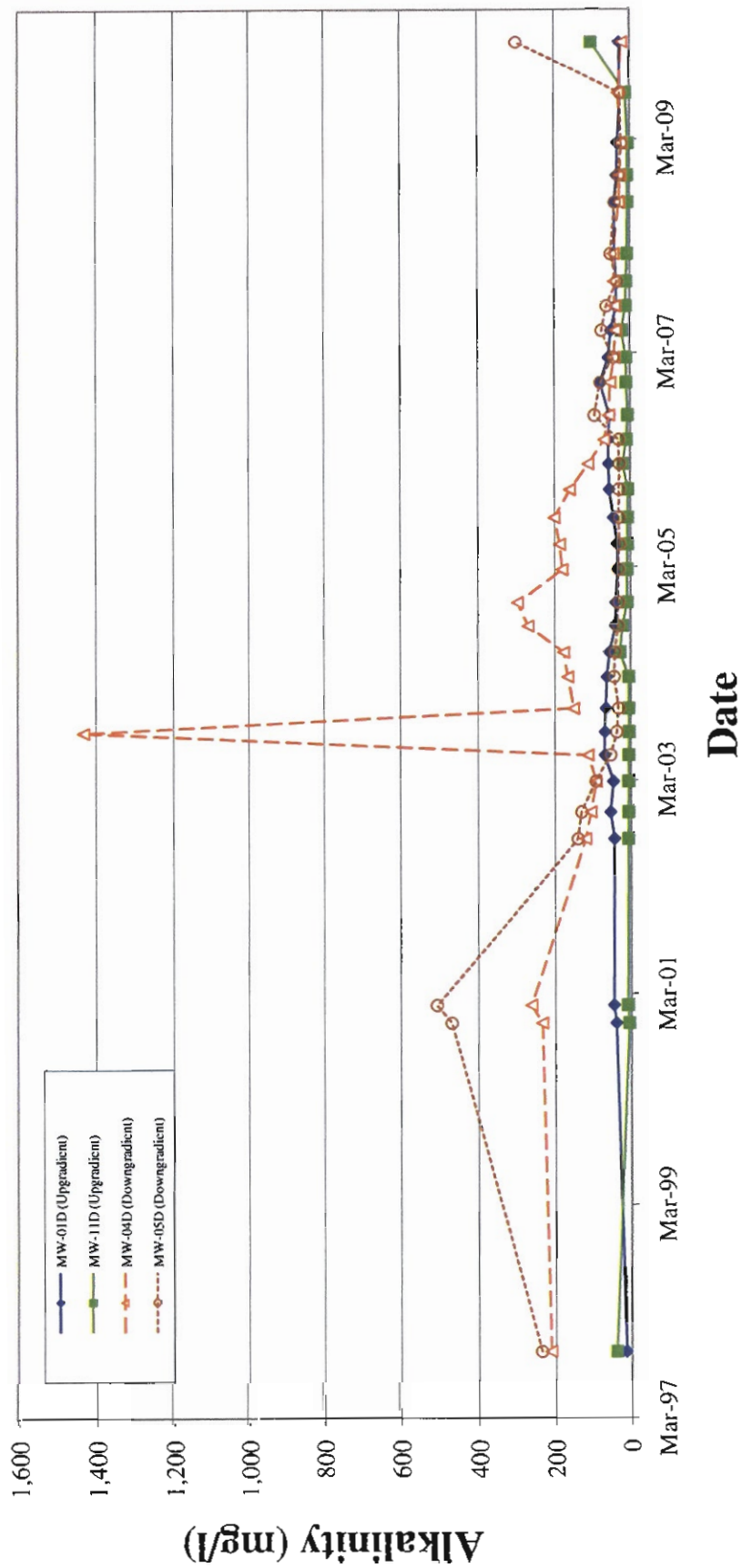
Alkalinity in Shallow Wells



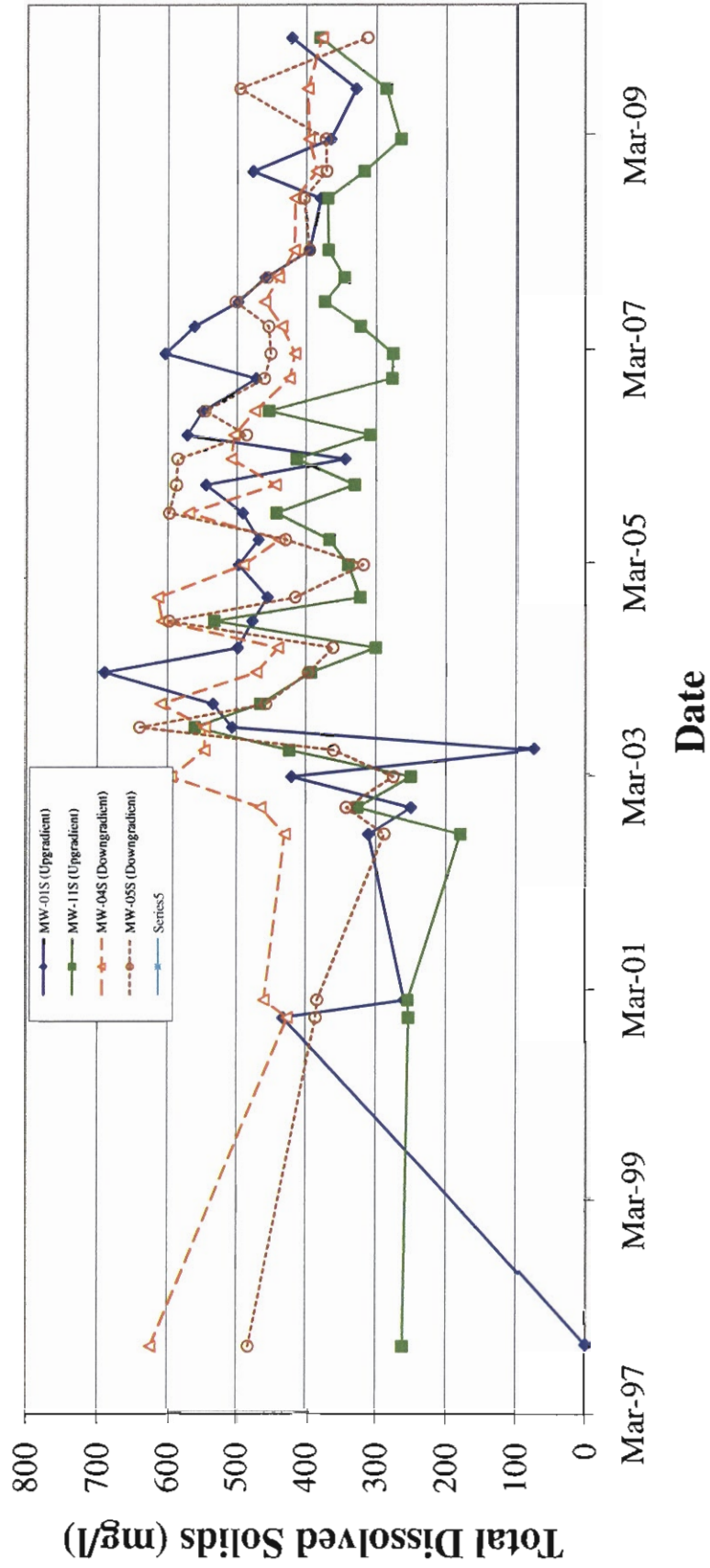
Alkalinity in Intermediate Wells



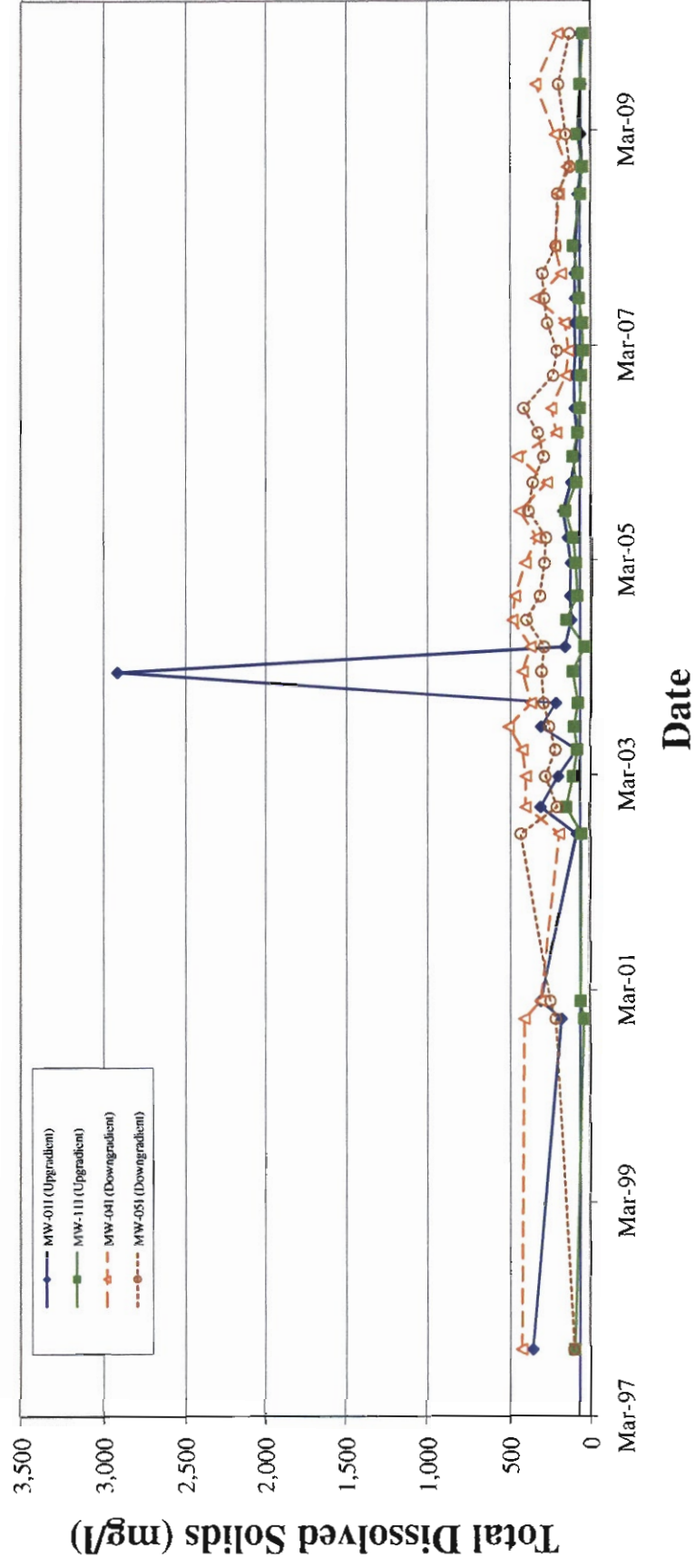
Alkalinity in Deep Wells



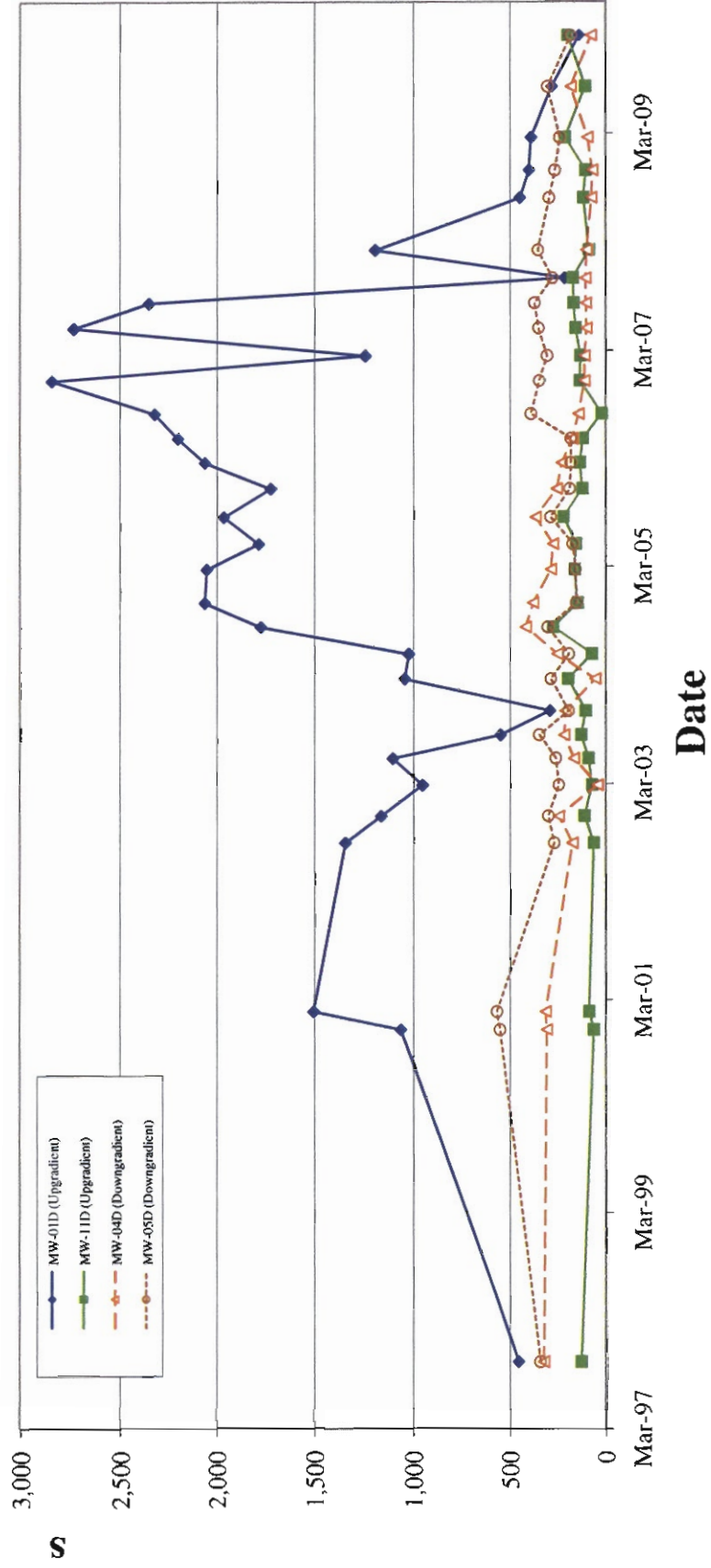
Total Dissolved Solids in Shallow Wells



Total Dissolved Solids in Intermediate Wells



Total Dissolved Solids in Deep Wells



APPENDIX B

DATA VALIDATION REPORT

Data Validation Services

120 Cobble Creek Road P.O. Box 208

North Creek, NY 12853

Phone 518-251-4429

Facsimile 518-251-4428

April 6, 2010

Kenneth Wenz
H2M Group
575 Broad Hollow Rd.
Melville, NY 11747

RE: Validation of ISLIP Sonia Road Landfill Site Data Packages
H2M SDG Nos. IRS71 and IRS72

Dear Mr. Wenz:

Review has been completed for the data packages generated by H2M Laboratories that pertain to samples collected 02/04/10 through 02/08/10 at the ISLIP Sonia Road Landfill Site. Twenty-two aqueous samples and two field duplicates were analyzed by H2M Labs for 6 NYCRR Part 360 Baseline parameters. Volatile Tentatively Identified Compounds (TICs) were also reported. Field and trip blanks and matrix spikes/duplicates were processed. For this sampling event, full validation was performed on 10% of the samples. Those reviewed are: MW-11, MW-6S, MW-5S, field and trip blanks, and matrix spikes. Methodologies utilized are those of the 1995 NYSDEC ASP/SW846.

Data validation was performed with guidance from the most current editions of the USEPA CLP National Functional Guidelines for (In)organic Data Review and the USEPA SOPs HW-2 and HW-6, as applicable for the methodology. The following items were reviewed:

- * Data Completeness
- * Laboratory Narrative
- * Custody Documentation
- * Holding Times
- * Surrogate and Internal Standard Responses
- * Matrix Spike Recoveries/Duplicate Correlations
- * Field Duplicate Correlations
- * Preparation/Calibration Blanks
- * Control Spike/Laboratory Control Samples
- * Calibration Standards
- * ICP Serial Dilutions
- * Instrument IDLs
- * Method Compliance
- * Sample Result Verification

Those items showing deficiencies are discussed in the following sections of this report. All others were found to be acceptable as outlined in the above-mentioned validation procedures, and as applicable for the methodology. Unless noted specifically in the following text, reported results of the fully validated samples are substantiated by the raw data, and generated in compliance with protocol requirements.

In summary, sample processing was conducted with compliance to protocol requirements and with adherence to quality criteria. Sample results are usable as reported, or with minor qualification as estimated. The issues requiring validation are discussed in the following analytical sections. Although only 10% of the samples underwent full validation review, recommended qualifications below are stated to include all project samples as pertains to general quality issues, and where evident.

Copies of laboratory case narratives are attached to this text, and should be reviewed in conjunction with this report. Laboratory NYSDEC Sample Preparation and Analysis Summary Forms are also included with this report.

Chain-of-Custody

Down-arrows were omitted from the collection date and/or matrix fields on some of the custodies.

Volatile Analyses

Sample surrogate and internal standard recoveries, the holding times, and the instrument tunes were acceptable.

Due to presence in the associated storage, trip, and/or method blank, detections of acetone in the samples are considered external contamination, and are to be edited to reflect non-detection.

The matrix spike evaluations of MW-2D and MW-6D show acceptable recoveries and duplicate correlations for the five analytes evaluated.

Blind field duplicate correlations of MW-2I and MW-6I were acceptable.

Due to outlying low responses (21%D to 40%D; 32%RSD) for an excessive number of analytes (16) in the associated calibration standards, all volatile results for validated samples MW-1I and MW-6S are to be qualified as estimated, with possible low bias. Other non-validated project samples reported in SDG IRS071 were also processed with these non-compliant analysis conditions.

The results for bromomethane (32%RSD), chloromethane (30%D), vinyl chloride (24%D), and vinyl acetate (25%D) in samples reported in SDG IRS072 are to be qualified as estimated ("UJ" or "J"), with possible low biases, due to outlying calibration standard responses.

Metals/CN Analyses

Matrix spike/duplicate correlations were performed on MW-2D and MW-6D. All recovery values and duplicate correlations were acceptable.

Blind field duplicate correlations of MW-2I and MW-6I were within validation guidelines.

The ICP serial dilutions of MW-2D and MW-6D were acceptable, with the exceptions of those for potassium (12%D) in MW-2D and for iron (13%D) in MW-6D. Results for iron samples reported in SDG IRS071 and for potassium in samples reported in SDG IRS072 are to be qualified as estimated ("J"), with possible high and low biases, respectively.

Instrument processing was compliant, and blanks show no contamination above the reporting limit.

Wet Chemistry Analyses

Review was conducted for method compliance, holding times, transcription, calculations, standard and blank acceptability, accuracy and precision, etc., as applicable to each procedure. All were found acceptable for the validated samples, unless noted specifically within this text.

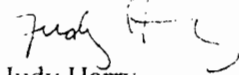
Matrix spike/duplicate correlations were performed on MW-2D and MW-6D. All recovery values and duplicate correlations were within validation guidelines.

Blind field duplicate correlations of MW-2I and MW-6I were acceptable, with the exception of that for nitrate in the latter (106%RPD). The results for that analyte in MW-6I and MW-6X are therefore to be qualified as estimated in value.

Due to presence in the associated field blank, the detection of TKN in all samples collected 02/04/10 **except** MW-4S, MW-6S, MW-3S, and MW-11D are considered external contamination and is to be edited to reflect non-detection at the originally reported concentration.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,


Judy Harry

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

**CLIENT and LABORATORY SAMPLE IDs
and CASE NARRATIVES**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: IRS071

Analytical Requirements

Customer Sample Code	Laboratory Sample Code	ME	MSVOA	WC
MW-1D	1002193-001	X	X	X
MW-1I	1002193-002	X	X	X
MW-1S	1002193-003	X	X	X
MW-4D	1002193-004	X	X	X
MW-4I	1002193-005	X	X	X
MW-4S	1002193-006	X	X	X
MW-6D	1002193-007	X	X	X
MW-6I	1002193-008	X	X	X
MW-6S	1002193-009	X	X	X
MW-6X	1002193-010	X	X	X
FB 2/4	1002193-011	X	X	X
TB 2/4	1002193-012		X	
SB 2/4	1002193-013		X	
MW-3S	1002235-001	X	X	X
MW-11D	1002235-002	X	X	X
MW-11I	1002235-003	X	X	X
MW-11S	1002235-004	X	X	X
MW-12D	1002235-005	X	X	X
MW-12I	1002235-006	X	X	X
MW-12S	1002235-007	X	X	X
FB 2/5/10	1002235-008	X	X	X
TB 2/5	1002235-009		X	

CLP, Non-CLP (Please indicate year of
protocol)

ASP B 2000
CG 3/14/10

IRS071 S3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: IRS072

Analytical Requirements

Customer Sample Code	Laboratory Sample Code	ME	MSVOA	WC
FB 2/8/10	1002308-001	X	X	X
MW-2D	1002308-002	X	X	X
MW-2I	1002308-003	X	X	X
MW-2X	1002308-004	X	X	X
MW-5D	1002308-005	X	X	X
MW-5I	1002308-006	X	X	X
MW-5S	1002308-007	X	X	X
MW-7I	1002308-008	X	X	X
TRIP BLANK 2/8/10	1002308-009		X	
SB 2/9/10	1002308-010		X	

CLP, (Non-CLP) Please indicate year of
protocol)

ASP B 2000
mm 3/110

IRS072 S3

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ANALYSES SAMPLE RECEIVED: 2/6/10 & 2/7/10 SDG#: IRS071

For Samples:

MW-1D	MW-6S	MW-11S
MW-1I	MW-6X	MW-12D
MW-1S	FB 2/4	MW-12I
MW-4D	TB 2/4	MW-12S
MW-4I	SB 2/4	FB 2/5/10
MW-4S	MW-3S	TB 2/5
MW-6D	MW-11D	
MW-6I	MW-11I	

The above water samples were analyzed for the part 360 baseline list of volatile organic analytes by EPA method 8260B according to the requirements of the NYSDEC ASP Rev. 2000.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample MW-6D was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPDs were met. A lab-fortified blank and matrix spike blank were analyzed and indicate good method efficiency.

Low levels of acetone were present in the method blanks. This analyte was flagged with a "B" qualifier if present in samples associated with these blanks.

Bromomethane had an RSD greater than 20.5% but less than 40% in the initial calibration.

Vinyl chloride had a 3.0.7% D in the continuing calibration of 2/5/10.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: March 4, 2010

*
*
*

Nicole Crespi
Quality Assurance Manager

IRS071 S26

H2M LABS, INC.

SDG NARRATIVE FOR METALS
SAMPLE(S) RECEIVED: 2/04/10 & 2/05/10
SDG #: IRS071

For Sample(s):

MW-1D	FB 2/4
MW-1I	MW-3S
MW-1S	MW-11D
MW-4D	MW-11I
MW-4I	MW-11S
MW-4S	MW-12D
MW-6D	MW-12I
MW-6I	MW-12S
MW-6S	FB 2/5 10
MW-6X	

Sample(s) was/were received by H2M Labs, Inc for cyanide and select metals analysis.

Samples were prepared and analyzed using EPA method 6010B with a TJA 61E Trace ICP instrument, method 7470A with a Leeman HYDRA mercury analyzer and cyanide methods 9010/9014.

Sample MW-6D was utilized for QC analysis and reporting.

The ICP serial dilution analysis did not meet acceptance criteria for iron. Iron data was reported flagged "E" on forms 1 and 9.

No other issues were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: March 1, 2010

*
*
*

Vincent Stancampiano
Vice President

IRS071 S27

H2M LABS, INC.

SDG NARRATIVE FOR WET CHEMISTRY SAMPLE(S) RECEIVED: 2/04/10 & 2/05/10 SDG #: IRS071

For Sample(s):

MW-1D	MW-4S	FB 2/4	MW-12D
MW-1I	MW-6D	MW-3S	MW-12I
MW-1S	MW-6I	MW-11D	MW-12S
MW-4D	MW-6S	MW-11I	FB 2/5/10
MW-4I	MW-6X	MW-11S	

Sample(s) was/were received by H2M Labs, Inc for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Alkalinity	SM2320B	Ammonia	SM4500-NH3 H
Anions-Cl/SO4/Br	EPA 300.0	Nitrate	EPA 353.2
Biochemical Oxygen Demand	SM5210B	Nitrite	EPA 353.2
Chemical Oxygen Demand	EPA 410.4	Phenols	EPA 420.1
Color	SM2120B	Total Dissolved Solids	SM2540C
Hexavalent Chromium	SM3500-Cr D	Total Kjeldahl Nitrogen	EPA 351.2
Hardness	SM2340C	Total Organic Carbon	EPA SW 846 9060

Sample MW-6D was utilized for QC analysis and reporting.

Samples were diluted and reanalyzed as required to keep instrument readings within calibration ranges.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: March 1, 2010

*
*
*

Vincent Stancampiano
Vice President

IRS071 S28

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ANALYSES SAMPLE RECEIVED: 2/9/10 SDG#: IRS072

For Samples:

FB 2/8/10 MW-5I
MW-2D MW-5S
MW-2I MW-7I
MW-2X TRIP BLANK 2/8/10
MW-5D SB 2/9/10

The above water samples were analyzed for the part 360 baseline list of volatile organic analytes by EPA method 8260B according to the requirements of the NYSDEC ASP Rev. 2000.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample MW-2D was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPDs were met. A lab-fortified blank and matrix spike blank were analyzed and indicate good method efficiency.

1 ug/L J of acetone was present in the method blank of 2/18/10. This analyte was flagged with a "B" qualifier if present in samples associated with this blank.

Bromomethane had an RSD greater than 20.5% but less than 40% in the initial calibration.

Bromomethane had a 28.9% D in the continuing calibration of 2/18/10.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: March 3, 2010

*
*
*

Nicole Crespi
Quality Assurance Manager

IRS072 S17

H2M LABS, INC.

SDG NARRATIVE FOR METALS
SAMPLE(S) RECEIVED: 2/09/10
SDG #: IRS072

For Sample(s):

FB 2/08/10
MW-2D
MW-2I
MW-2X
MW-5D
MW-5I
MW-5S
MW-7I

Sample(s) was/were received by H2M Labs, Inc for cyanide and select metals analysis.

Samples were prepared and analyzed using EPA method 6010B with a TJA 61E Trace ICP instrument, method 7470A with a Leeman HYDRA mercury analyzer and cyanide methods 9010/9014.

Sample MW-2D was utilized for QC analysis and reporting.

The ICP serial dilution analysis did not meet acceptance criteria for potassium. Potassium data was reported flagged "E" on forms 1 and 9.

No other issues were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: March 1, 2010

*
*
*

Vincent Stancampiano
Vice President

IRS072 S18

H2M LABS, INC.

SDG NARRATIVE FOR WET CHEMISTRY

SAMPLE(S) RECEIVED: 2/09/10

SDG #: IRS072

For Sample(s):

FB 2/08/10	MW-5D
MW-2D	MW-5I
MW-2I	MW-5S
MW-2X	MW-7I

Sample(s) was/were received by H2M Labs, Inc for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Alkalinity	SM2320B	Ammonia	SM4500-NH3 H
Anions-Cl/SO4/Br	EPA 300.0	Nitrate	EPA 353.2
Biochemical Oxygen Demand	SM5210B	Nitrite	EPA 353.2
Chemical Oxygen Demand	EPA 410.4	Phenols	EPA 420.1
Color	SM2120B	Total Dissolved Solids	SM2540C
Hexavalent Chromium	SM3500-Cr D	Total Kjeldahl Nitrogen	EPA 351.2
Hardness	SM2340C	Total Organic Carbon	EPA SW 846 9060

Sample MW-2D was utilized for QC analysis and reporting.

Samples were diluted and reanalyzed as required to keep instrument readings within calibration ranges.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: March 3, 2010

*
*
*

Vincent Stancampiano
Vice President

IRS072 S19