ISLIP RESOURCE RECOVERY AGENCY 401 MAIN STREET, ISLIP, NEW YORK 11751 (631) 224-5644

February 4, 2014

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
Fifteen Month Interval Groundwater Monitoring Report 2013 Sampling Results

Dear Mr. Trad:

Transmitted herewith for your review and consideration is two copies of the Post Closure Groundwater Monitoring Program Fifteen Month Interval Groundwater Sampling Results for the Sonia Road Landfill.

Sincerely,

Anthony J. Varrichio, P.E.
Chief Engineer

AJV:wc

Enclosure

cc: Eric M. Hofmeister, IRRA President
Alan R. Sanchez, Vice President Operations **w/encl.**
Richard M. Walka, Sr. Vice President, D&B
Keith S. Robins, Sr. Hydrogeologist, D&B
E. Lenio, NYSDEC, Stony Brook
File

ISLIP
RESOURCE
RECOVERY
AGENCY

Sonia Road Landfill
Brentwood, New York

Post Closure Groundwater Monitoring Program

2013 Monitoring Report
Baseline Sampling Event

January 2014

Prepared by:

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
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330 Crossways Park Drive, Woodbury, New York 11797-2015
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January 31, 2014

Anthony J. Varrichio, P.E.
Chief Engineer
Islip Resource Recovery Agency
401 Main Street
Islip, NY 11751

Re: Sonia Road Landfill
Post-Closure Groundwater Monitoring Program
2013 Monitoring Report
D&B No. 3371-02B

Dear Mr. Varrichio:

Enclosed please find six copies of the final 2013 Post-Closure Groundwater Monitoring Program Report for the Sonia Road Landfill. In addition, this report is provided in electronic format on the enclosed compact disc.

If you have any questions or require additional information, please call me at (516) 364-9890, Ext. 3006.

Very truly yours,

Richard M. Walka
Senior Vice President

RMW/KSR/nc
Enclosures
♦3371\RMWI4Ltr-01

POST CLOSURE GROUNDWATER MONITORING PROGRAM
2013 MONITORING REPORT
(BASELINE SAMPLING EVENT)

SONIA ROAD LANDILL
BRENTWOOD, NEW YORK

Prepared for:

ISLIP RESOURCE RECOVERY AGENCY
TOWN OF ISLIP, NEW YORK

Prepared by:

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
WOODBURY, NEW YORK

JANUARY 2014

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
2013 MONITORING REPORT

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1.0 INTRODUCTION

This report presents the results of the November 2013 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). 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.

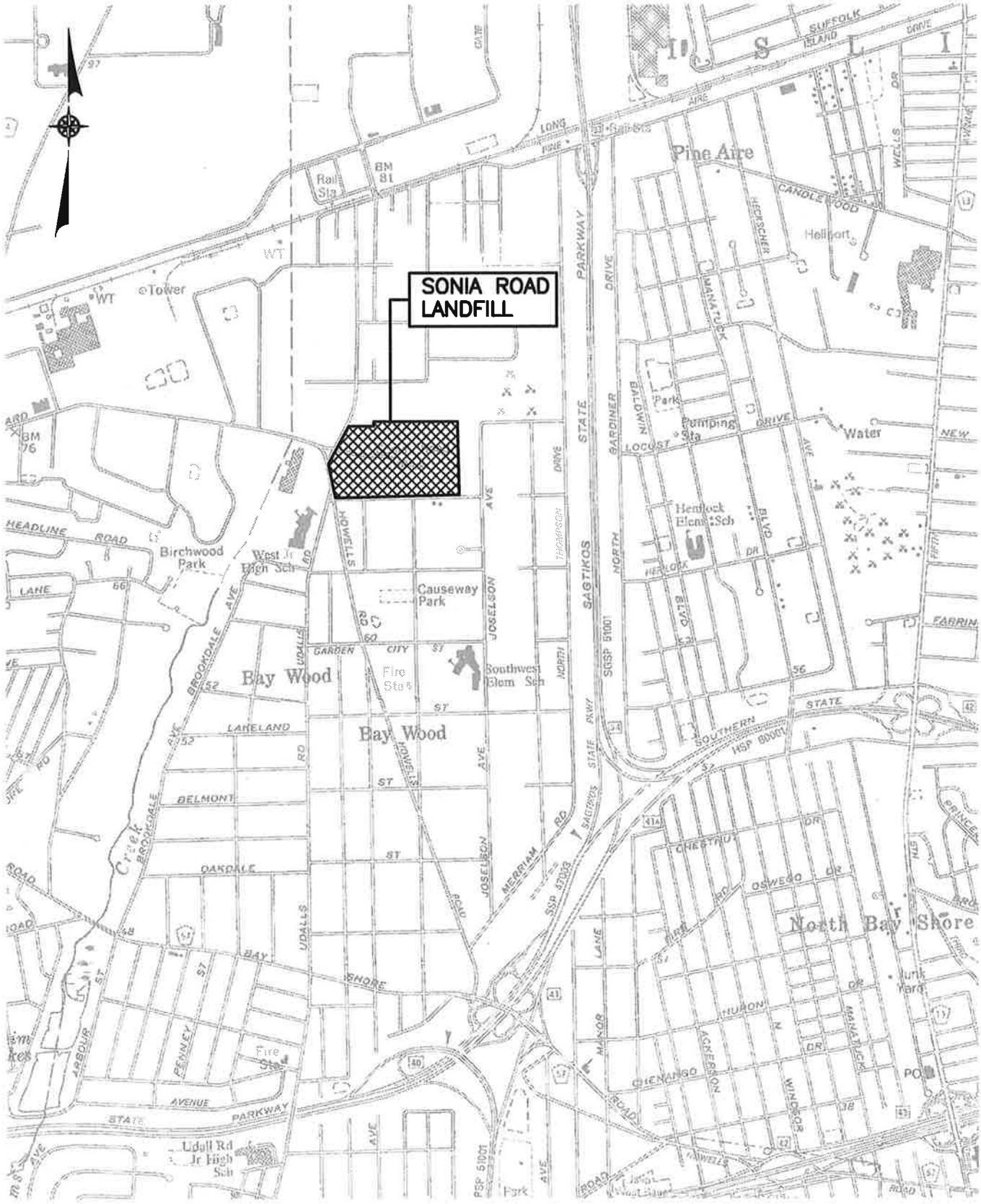
1.1 Purpose

The purpose of the Post Closure Groundwater Monitoring Program is to monitor groundwater quality and flow direction subsequent to the 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 of this November 2013 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 illustrated on **Figure 1-1.**



SOURCE: U.S.G.S. GREENLAWN, N.Y. AND BAY SHORE WEST, N.Y. QUADRANGLES

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SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

SCALE: 1"=2000'

SITE LOCATION MAP

FIGURE 1-1

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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.

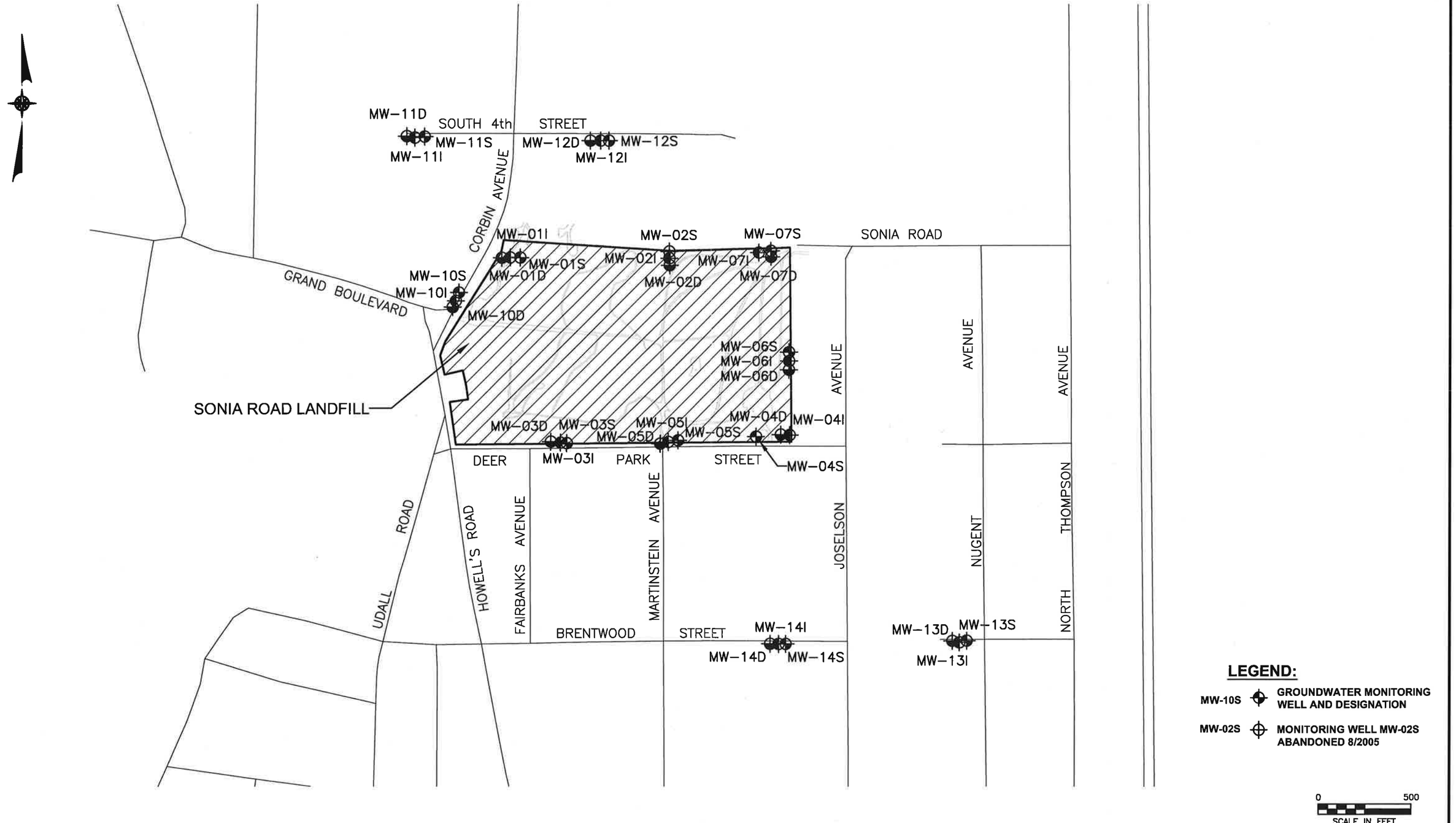
The landfill reportedly accepted all municipal solid waste delivered to the site. This waste is reported to include wood, concrete, metal, plastic, glass, household waste in the form of refuse, rubbish, demolition materials and yard wastes (particularly leaves). It is also reported that junk automobiles 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 illustrated on **Figure 2-1**. 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 2-1.**

Twenty-two (22) wells are included as part of the Post Closure Monitoring Program. The sampled wells are presented in **Table 2-2.** All 22 monitoring wells were sampled during the November 2013 sampling event.



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SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

GROUNDWATER MONITORING WELL LOCATIONS

FIGURE 2-1

Table 2-1

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS

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	*Abandoned in August 2005*						
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

Table 2-1 (continued)

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS

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-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
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:
[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 2-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
GROUNDWATER MONITORING WELLS SAMPLED AS PART OF THE 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	

3.0 SAMPLING PROCEDURES AND ANALYSIS

Sampling procedures for the collection of the groundwater samples were implemented in accordance with the protocol described in the Sampling and Analysis Plan (SAP). Dedicated and disposable sampling equipment was used whenever possible in accordance with the SAP. Field decontamination was performed between sampling locations for non-disposable equipment. The following sections provide a brief discussion of the procedures used during groundwater level measurements, organic vapor and combustible gas monitoring, groundwater sampling and sample analysis.

3.1 Groundwater Level Measurement Procedures

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 regarding groundwater level measurement results and groundwater flow direction is provided in **Section 6.0.**

3.2 Groundwater Sampling Procedures

Prior to collecting groundwater samples, the monitoring wells were purged to remove the standing water in 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 the water from the well.

During the purging process, groundwater was monitored and recorded for the following field parameters: pH, specific conductance, temperature, oxidation-reduction potential (ORP), dissolved oxygen and turbidity. When the values of the field parameters 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.

In accordance with the SAP, groundwater samples were collected using new, dedicated, disposable polyethylene bailers and polypropylene rope. Samples for VOC analysis were collected first, followed by inorganic parameters and leachate indicators. Each sample was stored in an ice-filled cooler with the chain of custody forms and picked up by American Analytical Laboratories, LLC.

Appropriate quality assurance/quality control (QA/QC) samples, which included one field blank, one matrix spike and matrix spike duplicate (MS/MSD) set and one blind duplicate, were collected in accordance with the SAP. In addition, a trip blank sample accompanied the laboratory cooler for each day of groundwater sampling.

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 55- gallon drums, transported to the landfill and the purge water discharged into the landfill's on-site Recharge Basin 1 in accordance with the SAP.

3.3 Volatile Organic Vapor and Combustible Gas Monitoring

Volatile organic vapor and combustible gas measurements were collected in all 35 monitoring wells. Volatile organic vapors were measured using a photoionization detector (PID) and combustible gas was measured using a portable multi-gas meter. The volatile organic vapor and combustible gas monitoring results represent headspace measurements collected during the synoptic groundwater level measurements. The volatile organic vapor and combustible gas monitoring results for November 2013 reporting period are provided in **Section 4.0.**

3.4 Sample Analysis

Groundwater samples collected during the November 2013 sampling event from 22 monitoring wells were analyzed for New York Codes, Rules and Regulations (NYCRR) Part 360 Baseline Parameters. Other parameters, such as pH, temperature, specific conductance, ORP, dissolved oxygen and turbidity, were measured in the field for groundwater samples collected from each of the monitoring wells. The groundwater analytical results are discussed in **Section 4.2.**

4.0 ANALYTICAL RESULTS

4.1 Field Parameters

A summary of the final field parameter values measured at the time of sample collection during the November 2013 sampling event is provided in **Table 4-1.**

4.2 Monitoring Well Groundwater Results

The analytical results for the groundwater samples collected during the November 2013 sampling event, compared to NYSDEC Class GA groundwater standards and guidance values, are provided in **Appendix A-1** (leachate indicators), **Appendix A-2** (inorganic parameters) and **Appendix A-3** (volatile organic compounds). Historic sample results from 2007 to November 2013 are also included in these tables. Historical data from 1996 to 2006 have been provided to the IRRA in previous post closure groundwater monitoring reports.

4.2.1 Leachate Indicators

As shown in **Appendix A-1**, the groundwater standard for ammonia of 2 milligrams per liter (mg/l) was exceeded in five (5) wells (MW-02I [4.08 mg/l], MW-04S [3.97 mg/l], MW-05S [4.28 mg/l], MW-06S [2.60 mg/l] and MW-12I [2.80 mg/l]).

4.2.2 Historic Leachate Indicators

The differences in leachate indicator concentrations for the November 2013 sampling event compared to the previous August 2012 sampling event are summarized in **Table 4-2** and discussed below. For discussion purposes, an increase or decrease in concentration is defined by a minimum change of +/- 20% compared to the previous result. If a concentration remained

Table 4-1

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY OF FINAL FIELD PARAMETER RESULTS
NOVEMBER 2013 SAMPLING EVENT

Monitoring Well	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	DO (mg/l)	Temperature (ºC)	ORP (mV)
MW-01S	6.28	0.635	0.0	0.0	16.75	-72
MW-01I	4.79	0.622	0.0	1.65	14.25	275
MW-01D	4.91	0.382	0.0	6.84	13.51	239
MW-02I	6.20	0.405	0.0	0.0	14.22	130
MW02D	5.13	0.214	0.0	5.76	13.85	162
MW-03S	6.45	0.938	0.6	1.99	15.52	-125
MW-04S	6.21	1.32	0.6	0.56	13.36	-129
MW-04I	6.42	0.879	0.0	0.0	12.65	-136
MW-04D	6.50	0.756	0.3	0.46	11.88	-163
MW-05S	6.25	1.12	0.3	3.32	14.49	-105
MW-05I	6.62	0.784	0.5	4.85	13.16	-126
MW-05D	5.23	0.223	0.3	4.90	12.86	180
MW-06S	6.08	0.929	0.2	0.0	16.58	-114
MW-06I	5.72	0.282	0.0	0.0	14.77	180
MW-06D	5.21	0.228	0.0	0.0	13.26	128
MW-07I	5.44	0.302	0.0	0.0	14.31	151
MW-11S	6.45	0.792	0.5	2.71	12.13	50
MW-11I	4.74	0.090	0.7	10.85	13.63	219
MW-11D	5.15	0.344	0.4	6.34	14.28	106
MW-12S	6.35	0.638	0.6	2.38	14.12	45
MW-12I	5.36	0.447	0.5	1.70	12.60	163
MW-12D	5.46	0.153	0.6	2.43	11.50	149

Notes:
Mg/l: Milligrams per liter
mS/cm: Millisiemens per centimeter.
NTUs: Nephelometric turbidity units
mV: Millivolts
mg/l: Milligrams per liter
^{o}C:: Degrees Celsius
ORP: Oxidation Reduction Potential
DO: Dissolved oxygen

Table 4-2

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY COMPARISON OF 2013 SAMPLING EVENT TO PREVIOUS SAMPLING EVENT FOR LEACHATE INDICATORS

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

I: Increase in concentration (change greater than 20%) in comparison to previous sampling result.
D: Decrease in concentration (change greater than 20%) in comparison to previous sampling result.
C: Consistent in concentration (within 20%) in comparison to previous sampling result.
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

consistent it is defined as within 20% of the previous result. As part of evaluating changes in groundwater quality, historic results for ammonia were graphed for the shallow, intermediate and deep zones for upgradient wells and downgradient wells. These graphs are presented in **Appendix B.**

Alkalinity

Six (6) wells (MW-02I, MW-04D, MW-05I, MW-06S, MW-06D and MW-11S) showed an increase in alkalinity concentrations. Eight (8) wells (MW-01I, MW-02D, MW-04I, MW-05D, MW-07I, MW-11I, MW-11D and MW-12S) showed a decrease in alkalinity concentrations. The remaining eight (8) wells were consistent.

Ammonia

Four (4) wells (MW-02I, MW-04I, MW-06D and MW-12I) showed an increase in ammonia concentrations. Six (6) wells (MW-01S, MW-01I, MW-02D, MW-06S, MW-06I and MW-07I) showed a decrease in ammonia concentrations. The remaining twelve (12) wells were consistent.

Biochemical Oxygen Demand

Three (3) wells (MW-03S, MW-04S and MW-05S) showed an increase in biochemical oxygen demand (BOD) concentrations and well MW-04I showed a decrease in BOD concentration. The remaining eighteen (18) wells were consistent.

Bromide

Bromide concentrations in all wells remained consistent, except for well MW-06I which showed an increase in bromide concentration.

Chemical Oxygen Demand

Two (2) wells (MW-02I and MW-11D) showed an increase in chemical oxygen demand (COD) concentrations. Five (5) wells (MW-01S, MW-03S, MW-04I, MW-05S and MW-06S) showed a decrease in COD concentrations. The remaining fifteen (15) wells were consistent.

Chloride

Eight (8) wells (MW-01I, MW-01D, MW-02I, MW-041, MW-04D, MW-05I, MW-05D and MW-121) showed an increase in chloride concentrations. Eight (8) wells (MW-01S, MW-02D, MW-06S, MW-06D, MW-07I, MW-11S, MW-11I and MW-11D) showed a decrease in chloride concentrations. The remaining six (6) wells were consistent.

Hardness

Six (6) wells (MW-01I, MW-02I, MW-04D, MW-05I, MW-05D and MW-12I) showed an increase in hardness concentrations. Fourteen (14) wells (MW-01S, MW-01D, MW-02D, MW-03S, MW-04S, MW-04I, MW-05S, MW-06S, MW-06I, MW-06D, MW-07I, MW-11I, MW-11D and MW-12S) showed a decrease in hardness concentrations. The remaining two (2) wells were consistent.

Nitrate

Four (4) wells (MW-02D, MW-04I, MW-06D and MW-11D) showed an increase in nitrate concentrations. Eight (8) wells (MW-02I, MW-04S, MW-04D, MW-07I, MW-11S, MW-11I, MW-12I and MW-12D) showed a decrease in nitrate concentrations. The remaining ten (10) wells were consistent.

Total Phenols

Total phenol concentrations in all 22 wells remained consistent.

Sulfate

Ten (10) wells (MW-03S, MW-04I, MW-04D, MW-05I, MW-05D, MW-06S, MW-07I, MW-12S, MW-12I and MW-12D) showed an increase in sulfate concentrations. Nine (9) wells (MW-01I, MW-02I, MW-02D, MW-05S, MW-06I, MW-06D, MW-11S, MW-11I and MW-11D) showed a decrease in sulfate concentrations. The remaining three (3) wells were consistent.

Total Organic Carbon

Three (3) wells (MW-02I, MW-05S and MW-05I) showed an increase in total organic carbon (TOC) concentrations. Four (4) wells (MW-02D, MW-04D, MW-11D and MW-12S) showed a decrease in TOC concentrations. The remaining fifteen (15) wells were consistent.

Total Dissolved Solids

Six (6) wells (MW-01I, MW-02I, MW-04D, MW-05S, MW-05I and MW-12I) showed an increase in total dissolved solids (TDS) concentrations. Eight (8) wells (MW-01S, MW-01D, MW-02D, MW-06S, MW-06I, MW-07I, MW-11I and MW-11D) showed a decrease in total dissolved solids (TDS) concentrations. The remaining eight (8) wells were consistent.

Total Kjeldahl Nitrogen

Total Kjeldahl nitrogen (TKN) concentrations in all wells remained consistent, except for well MW-02D which showed a decrease in TKN concentration and well MW-01I which remained consistent.

4.2.3 Inorganic Parameters

As shown in **Appendix A-2**, five metals (antimony, hexavalent chromium, iron, manganese and sodium) were detected in one or more wells at concentrations exceeding NYSDEC Class GA groundwater standards or guidance values. These parameters are each discussed below.

Antimony

The groundwater guidance value for antimony of 3 ug/l was exceeded in six (6) wells (MW-01S [12.5 ug/], MW-02I [6.58 ug/l], MW-04S [7.92 ug/l], MW-05I [6.59 ug/l]), MW-11S [6.01 ug/l] and MW-12S [6.04 ug/l].

Hexavalent Chromium

The groundwater standard for hexavalent chromium of 50 ug/l was exceeded in well MW-01I (97.3 ug/l).

Iron

The groundwater standard for iron of 300 ug/l was exceeded in nine (9) wells (MW-01S, MW-03S, MW-04S, MW-04I, MW-04D, MW-05S, MW-05I, MW-06S and MW-11D). Iron concentrations detected in these wells ranged from 424 ug/l in MW-11D to 40,800 ug/l in MW-04D.

Manganese

The groundwater standard for manganese of 300 ug/l was exceeded in fifteen (15) wells (MW-01I, MW-01S, MW-03S, MW-04S, MW-04I, MW-04D, MW-05S, MW-05I, MW-05D,

MW-06S, MW-06I, MW-06D, MW-07I, MW-11S and MW-12I). Manganese concentrations detected in these wells ranged from 352 ug/l in MW-05D to 4,770 ug/l in MW-05S.

Sodium

The groundwater standard for sodium of 20,000 ug/l was exceeded in well MW-04I (20,800 ug/l).

4.2.4 Historic Inorganic Parameters

The differences in inorganic parameter concentrations for the November 2013 sampling event compared to the previous August 2012 sampling event are summarized in **Table 4-3** and discussed below. For discussion purposes, an increase or decrease in concentration is defined by a minimum change of +/- 20% compared to the previous result. If a concentration remained consistent it is defined as within 20% of the previous result. As part of evaluating changes in groundwater quality, historic results for iron plus manganese and sodium were graphed for the shallow, intermediate and deep zones for upgradient wells and downgradient wells. These graphs are presented in **Appendix B.**

Aluminum

All wells except for MW-11D showed a decrease in aluminum concentrations. Well MW-11D showed an increase in aluminum concentration.

Antimony

Six (6) wells (MW-01S, MW-02I, MW-04S, MW-05I, MW-11S and MW-12S) showed an increase in antimony concentrations. Monitoring wells MW-05S and MW-11D showed a decrease in antimony concentrations. The remaining fourteen (14) wells were consistent.

Table 4-3

SONIA ROAED LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY COMPARISON OF 2013 SAMPLING EVENT TO PREVIOUS SAMPLING EVENT FOR INORGANIC PARAMETERS

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

I: Increase in concentration (change greater than 20%) in comparison to previous sampling result.
D: Decrease in concentration (change greater than 20%) in comparison to previous sampling result.
C: Consistent in concentration (within 20%) in comparison to previous sampling result.
Parameter exceeds standard/guidance value during the current sampling event.

Table 4-3 (continued)

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY COMPARISON OF 2013 SAMPLING EVENT TO
PREVIOUS SAMPLING EVENT FOR INORGANIC PARAMETERS

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

I: Increase in concentration (change greater than 20%) in comparison to previous sampling result.
D: Decrease in concentration (change greater than 20%) in comparison to previous sampling result.
C: Consistent in concentration (within 20%) in comparison to previous sampling result.
Parameter exceeds standard/guidance value during the current sampling event.

Table 4-3 (continued)

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY COMPARISON OF 2013 SAMPLING EVENT TO
PREVIOUS SAMPLING EVENT FOR INORGANIC PARAMETERS

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

I: Increase in concentration (change greater than 20%) in comparison to previous sampling result.
D: Decrease in concentration (change greater than 20%) in comparison to previous sampling result.
C: Consistent in concentration (within 20%) in comparison to previous sampling result.
Parameter exceeds standard/guidance value during the current sampling event.

Arsenic

Wells MW-04S and MW-04D showed an increase in arsenic concentrations. Four (4) wells (MW-05S, MW-05I, MW-11D and MW-12S) showed a decrease in arsenic concentrations. The remaining sixteen (16) wells were consistent.

Barium

Fourteen (14) wells (MW-01I, MW-01D, MW-02I, MW-04I, MW-04D, MW-05I, MW-05D, MW-06D, MW-07I, MW-11S, MW-11I, MW-12S, MW-12I, and MW-12D) showed a increase in barium concentrations. Four (4) wells (MW-02D, MW-04S, MW-06S and MW-11D) showed a decrease in barium concentrations. The remaining four (4) wells were consistent.

Beryllium

Beryllium concentrations in all 22 wells remained consistent.

Boron

Five (5) wells (MW-01I, MW-02I, MW-04D, MW-11S and MW-11D) showed an increase in boron concentrations. Eight (8) wells (MW-01S, MW-01D, MW-02D, MW-03S, MW-04S, MW-06S, MW-06D and MW-11I) showed decrease in boron concentrations. The remaining nine (9) wells were consistent.

Cadmium

Five (5) wells (MW-06S, MW-11I, MW-11D, MW-12S and MW-12I) showed a decrease in cadmium concentrations. The remaining seventeen (17) wells were consistent.

Calcium

Four (4) wells (MW-02I, MW-05I, MW-05D and MW-12I) showed an increase in calcium concentrations. Thirteen (13) wells (MW-01S, MW-01I, MW-01D, MW-02D, MW-04S, MW-04I, MW-04D, MW-06S, MW-06I, MW-07I, MW-11I, MW-11D and MW-12S) showed a decrease in calcium concentrations. The remaining five (5) wells were consistent.

Hexavalent Chromium

Hexavalent chromium concentrations in all wells remained consistent, except for well MW-01I which showed an increase in hexavalent chromium concentration and well MW-01D which showed a decrease in hexavalent chromium concentration.

Total Chromium

Total chromium concentrations in all wells, except for three (3) wells (MW-01D, MW-04D and MW-11I) showed a decrease in total chromium concentrations. Total chromium concentrations for the three (3) wells remained consistent.

Cobalt

Nine (9) wells (MW-01S, MW-01D, MW-04D, MW-05S, MW-06I, MW-06D, MW-11S, MW-11D and MW-12S) showed a decrease in cobalt concentrations. The remaining thirteen (13) wells were consistent.

Copper

Well MW-11I showed an increase in copper concentration. Seven (7) wells (MW-05S, MW-06I, MW-11S, MW-11D, MW-12S, MW-12I and MW-12D) showed a decrease in copper concentrations. The remaining fourteen (14) wells were consistent.

Iron

Two wells, MW-04D and MW-05I showed an increase in iron concentrations and the remaining twenty (20) wells showed a decrease in iron concentrations.

Lead

All wells showed a decrease in lead concentrations, except for well MW-05D which showed an increase in lead concentration and in well MW-02D, lead concentration remained consistent.

Magnesium

Five (5) wells (MW-01I, MW-04D, MW-05I, MW-05D and MW-12I) showed an increase in magnesium concentrations. Eleven (11) wells (MW-01S, MW-01D, MW-02I, MW-02D, MW-04S, MW-04I, MW-06S, MW-06I, MW-11I, MW-11D and MW-12S) showed a decrease in magnesium concentrations. The remaining six (6) wells were consistent.

Manganese

Six (6) wells (MW-02I, MW-04D, MW-05I, MW-05D, MW-06D and MW-07I) showed an increase in manganese concentrations. Eight (8) wells (MW-01S, MW-04S, MW-04I, MW-11S, MW-11I, MW-12S, MW-12I and MW-12D) showed a decrease in manganese concentrations. The remaining eight (8) wells were consistent.

Mercury

Twelve (12) wells (MW-01S, MW-02I, MW-02D, MW-03S, MW-04S, MW-04I, MW-05I, MW-05D, MW-06S, MW-06I, MW-07I and MW-11D) showed a decrease in mercury concentrations. The remaining ten (10) wells were consistent.

Nickel

Four (4) wells (MW-04I, MW-04D, MW-06S and MW-06D) showed an increase in nickel concentrations. Fifteen (15) wells (MW-01S, MW-01I, MW-02I, MW-02D, MW-03S, MW-04S, MW-05S, MW-05I, MW-05D, MW-06I, MW-07I, MW-11S, MW-12S, MW-12I and MW-12S) showed a decrease in nickel concentrations. The remaining three (3) wells were consistent.

Potassium

Ten (10) wells (MW-01I, MW-02I, MW-04I, MW-04D, MW-05I, MW-06I, MW-06D, MW-11S, MW-12S and MW-12D) showed an increase in potassium concentrations. Nine (9) wells (MW-01S, MW-01D, MW-02D, MW-04S, MW-06S, MW-07I, MW-11I, MW-11D and MW-12I) showed a decrease in potassium concentrations. The remaining three (3) wells were consistent.

Selenium

Four (4) wells (MW-03S, MW-04I, MW-05D and MW-12S) showed a decrease in selenium concentrations. The remaining eighteen (18) wells were consistent.

Silver

Silver concentrations in all wells remained consistent, except for wells MW-03S and MW-12I which showed a decrease in silver concentrations. The remaining twenty (20) wells were consistent.

Sodium

Three (3) wells (MW-04D, MW-05I and MW-07I) showed an increase in sodium concentrations. The remaining nineteen (19) wells showed a decrease in sodium concentrations.

Thallium

Four (4) wells (MW-01S, MW-01I, MW-03S and MW-06S) showed a decrease in thallium concentrations. The remaining eighteen (18) wells were consistent.

Vanadium

Eight (8) wells (MW-01S, MW-01D, MW-04S, MW-05S, MW-06I, MW-11D, MW-12S and MW-12D) showed a decrease in vanadium concentrations. The remaining fourteen (14) wells were consistent.

Zinc

All wells, except for well MW-12D showed a decrease in zinc concentrations. Zinc concentration in well MW-12D remained consistent.

Cyanide

Cyanide concentrations in all 22 wells remained consistent.

4.2.5 Volatile Organic Compounds

Volatile organic compounds (VOCs) were analyzed and compared against the NYSDEC Class GA groundwater standards or guidance values for the 22 wells sampled during the November 2013 sampling event.

As shown in **Appendix A-3**, twelve (12) of the 22 wells, contained no detectable concentrations of VOCs. Tetrachloroethene (PCE) was detected in exceedance of the NYSDEC Class GA groundwater standard in MW-07I at 12 ug/l. PCE has a groundwater standard of 5 ug/l. 1,2-Dichloroethane (1,2-DCA) was detected in exceedance of the NYSDEC Class GA groundwater standard in MW-11D at 2.3 ug/l. 1,2-DCA has a groundwater standard of 0.6 ug/l. The remaining eight (8) wells contained trace concentrations of one or more VOCs. These VOCs included 1,1-dichloroethene, cis-1,2-dichlorothene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, chloroform, chlorobenzene and PCE. All VOCs in these wells were detected at concentrations below the contract required detection limit, and as such, are considered estimated values.

4.3 Volatile Organic Vapor and Combustible Gas Monitoring

The results of the volatile organic vapor and combustible gas monitoring in the headspace of the monitoring wells are presented in **Table 4-4**. The results show that volatile organic vapors were not detected in the headspace of the groundwater monitoring wells. Combustible gas readings for all groundwater monitoring wells were recorded at 0% of the Lower Explosive Limit (LEL).

Table 4-4

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
VOLATILE ORGANIC VAPOR AND COMBUSTIBLE GAS RESULTS
NOVEMBER 2013 SAMPLING EVENT

Well Number	PID (ppm)	Combustible Gas (% LEL)
MW-01D	0.0	0
MW-01I	0.0	0
MW-01S	0.0	0
MW-02D	0.0	0
MW-02I	0.0	0
MW-03S	0.0	0
MW-03I	0.0	0
MW-03D	0.0	0
MW-04D	0.0	0
MW-04I	0.0	0
MW-04S	0.0	0
MW-05D	0.0	0
MW-05I	0.0	0
MW-05S	0.0	0
MW-06D	0.0	0
MW-06I	0.0	0
MW-06S	0.0	0
MW-07D	0.0	0
MW-07I	0.0	0
MW-07S	0.0	0
MW-10D	0.0	0
MW-10I	0.0	0
MW-10S	0.0	0
MW-11D	0.0	0
MW-11I	0.0	0

Table 4-4 (continued)

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
VOLATILE ORGANIC VAPOR AND COMBUSTIBLE GAS RESULTS
NOVEMBER 2013 SAMPLING EVENT

Well Number	PID (ppm)	Combustible Gas (% LEL)
MW-11S	0.0	0
MW-12D	0.0	0
MW-12I	0.0	0
MW-12S	0.0	0
MW-13D	0.0	0
MW-13I	0.0	0
MW-13S	0.0	0
MW-14D	0.0	0
MW-14I	0.0	0
MW-14S	0.0	0

Notes:
PID: Photoionization Detector.
PPM:Parts per million.
% LEL: Percent lower explosive limit for methane.
Volatile organic vapor and combustable gas readings were measured in the headspace of the monitoring wells.

5.0 DATA VALIDATION

Twenty-two (22) groundwater samples, one blind duplicate sample, one matrix spike/matrix spike duplicate (MS/MSD) sample set, three trip blanks and one field blank was collected as part of the November 2013 Post Closure Groundwater Monitoring Program sampling event at the Sonia Road Landfill. All samples were analyzed for Baseline NYCRR Part 360 VOCs, inorganic parameters and leachate indicators. Laboratory analysis were performed by American Analytical Laboratories, LLC, Farmingdale, NY; subcontracted Biochemical Oxygen Demand (BOD) and color to Analytical Chemists, Farmingdale, NY and subcontracted Total Organic Carbon (TOC) to Summit Environmental Technologies, Cuyahoga Falls, OH. All analysis were performed in accordance with United States Environmental Protection Agency (USEPA) SW-846 laboratory methods and the New York State Department of Environmental Conservation (NYSDEC) 6/05 Analytical Services Protocol (ASP) methodologies as specified in 6 NYCRR Part 360.

Three data packages (1311100, 1311107 and 1311114) have been reviewed in accordance with NYSDEC 6/05 ASP Quality Assurance/Quality Control (QA/QC) requirements. In accordance with the contract requirements and the approved Sampling and Analysis Plan, 10 percent of the environmental samples and all of the QA/QC samples (calibrations, blanks, spikes, ect.) were reviewed, yielding a “10% validation”. While all of the samples were reviewed for transcription errors, calculations were verified for five environmental samples (MW-01D, MW-05D, MW-06S, MW-07I and MW-11S). The findings of the review process are summarized below.

Blind Duplicate A was a duplicate of sample MW-02D. The matrix spike and matrix spike duplicate set was collected at well MW-01D.

The following requirements were outside limits:

- Methylene chloride was detected in the method blanks, trip blanks and field blanks associated with all samples. Methylene chloride was qualified as non-detected (UB) for all samples if detected.

- Acetone was detected in the trip blanks associated with data package 1311114. Acetone was qualified as non-detected (UB) for all samples if detected.

- Iron, zinc and cyanide were detected in the field blank associated with all samples. Iron was qualified as non-detected (UB) for samples Blind Duplicate A, MW-01D, MW01I, MW-02D, MW-05D, MW-06I, MW-07I, MW-11I, MW-11S, MW-12D, MW-12I and MW-12S: and zinc and cyanide for all samples if detected.

- Phenolics was detected in the field blanks associated with all samples. Phenolics was qualified as non-detected (UB) for all samples if detected.

Based on the findings of the data validation process, all results are deemed valid and usable for environmental assessment purposes as qualified above. Completed Data Validation Forms were prepared for each data package and are presented in **Appendix C**.

6.0 GROUNDWATER LEVEL MEASUREMENTS AND FLOW DIRECTION

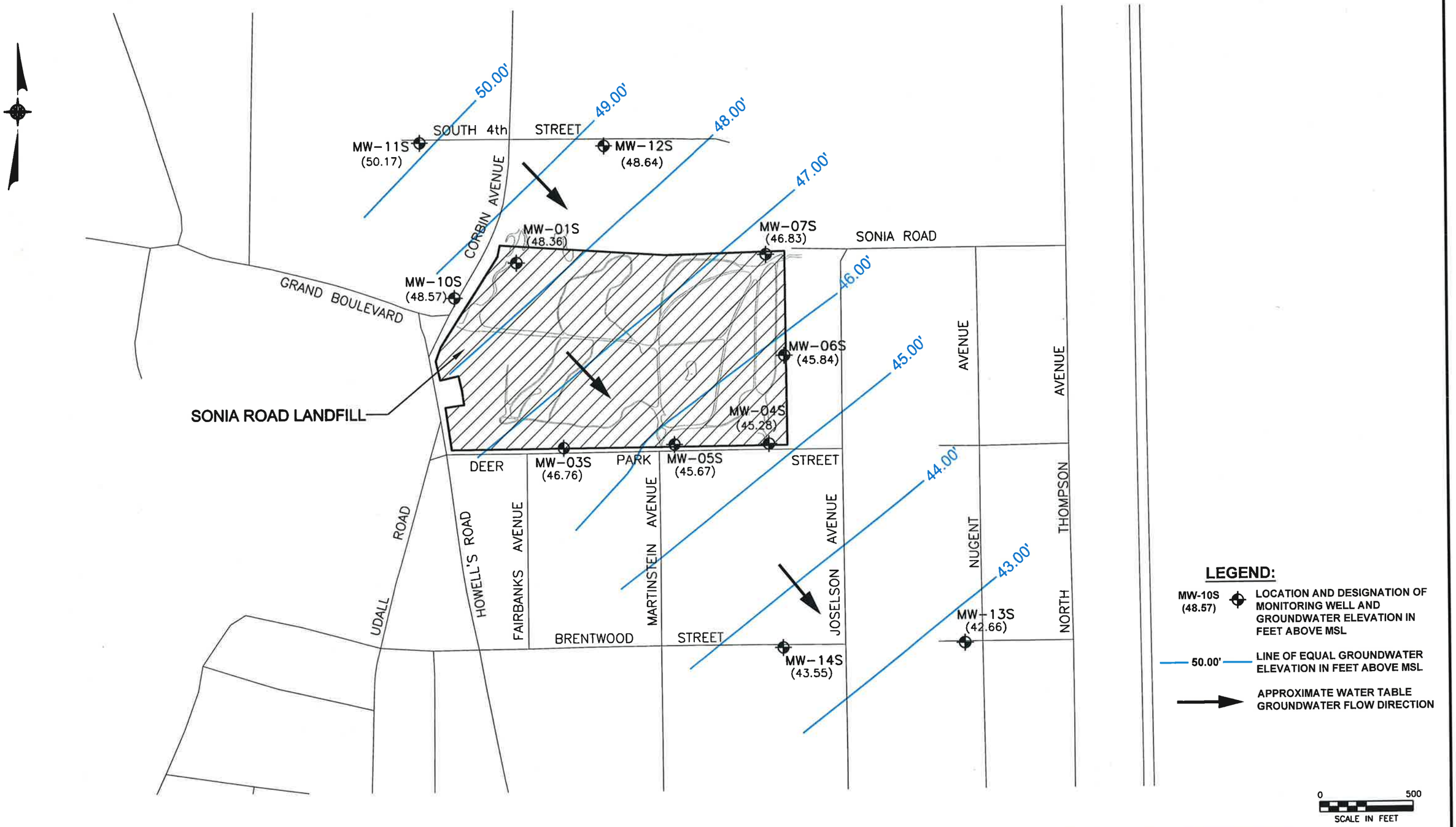
Groundwater level measurements were obtained on November 12, 2013, from the 22 monitoring wells included in the Post-Closure Groundwater Monitoring Program and the 13 additional site-related wells not sampled as part of the program. The depth to groundwater measurements, measuring point elevations, and calculated groundwater elevations for the 35 monitoring wells are summarized in **Table 6-1**.

The November 12, 2013 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 6-1, 6-2** and **6-3,** 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.

Table 6-1

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS
NOVEMBER 12, 2013

Well	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point(feet)	Groundwater Elevation (feet above msl)
MW-01S	66.01	17.65	48.36
MW-01I	65.36	17.01	48.35
MW-01D	64.53	16.16	48.37
MW-02I	78.24	30.59	47.65
MW-02D	78.43	31.01	47.42
MW-03S	70.76	24.00	46.76
MW-03I	70.77	24.24	46.53
MW-03D	70.50	24.05	46.45
MW-04S	71.10	25.82	45.28
MW-04I	69.31	24.11	45.20
MW-04D	69.03	23.74	45.29
MW-05S	70.28	24.61	45.67
MW-05I	70.26	24.58	45.68
MW-05D	70.96	25.06	45.90
MW-06S	74.45	28.61	45.84
MW-06I	74.52	28.68	45.84
MW-06D	75.02	29.21	45.81
MW-07S	72.83	26.00	46.83
MW-07I	73.43	26.60	46.83
MW-07D	75.04	28.26	46.78
MW-10S	56.65	8.08	48.57
MW-10I	56.16	7.92	48.24
MW-10D	56.34	8.10	48.24
MW-11S	59.87	9.70	50.17
MW-11I	60.38	9.89	50.49
MW-11D	60.19	9.84	50.35
MW-12S	58.79	10.15	48.64
MW-12I	58.92	10.31	48.61
MW-12D	58.61	9.90	48.71
MW-13S	70.51	27.85	42.66
MW-13I	70.30	27.83	42.47
MW-13D	70.37	27.82	42.55
MW-14S	64.55	21.00	43.55
MW-14I	64.57	21.11	43.46
MW-14D	64.58	21.07	43.51



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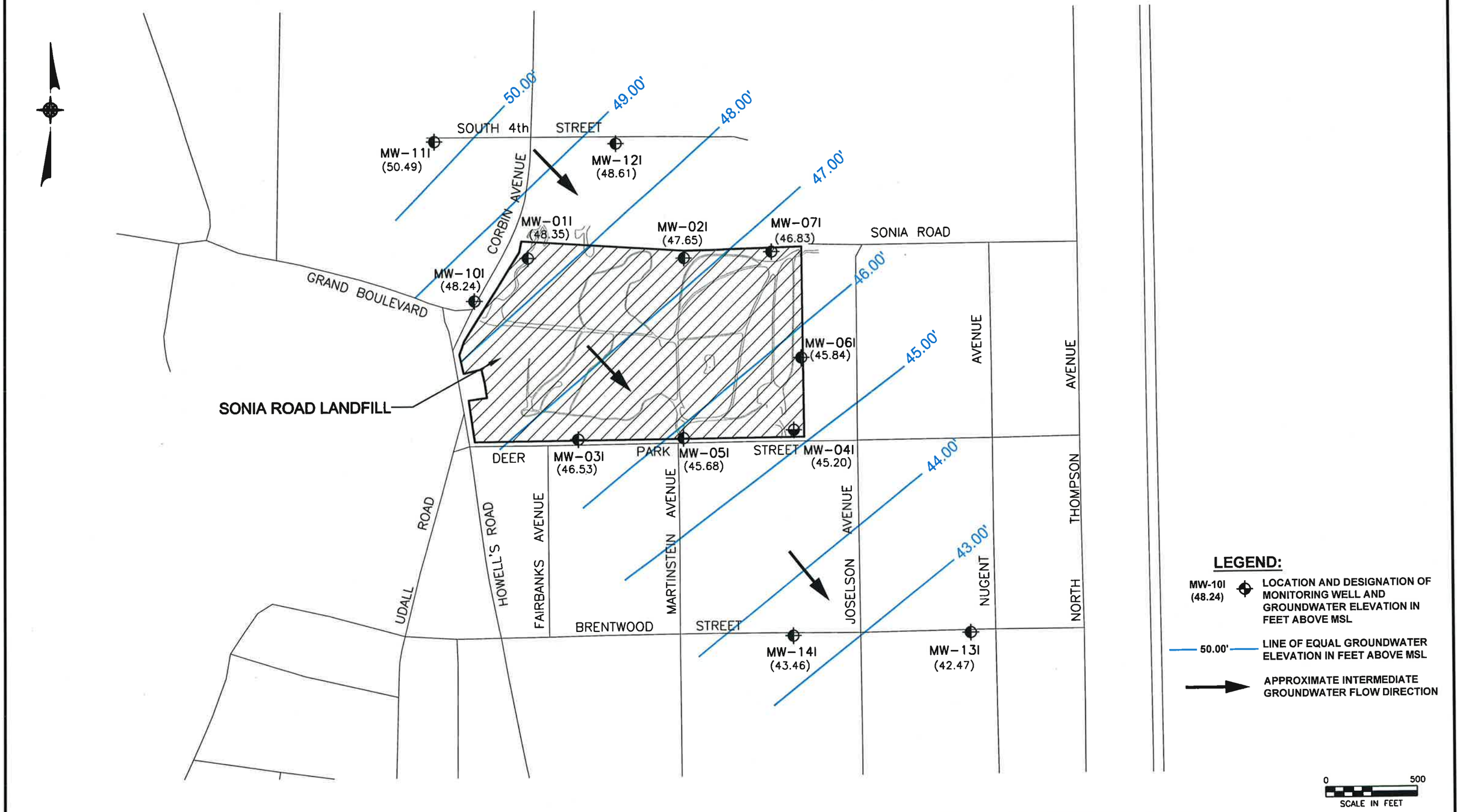
SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

WATER TABLE CONTOUR MAP
NOVEMBER 12, 2013

FIGURE 6-1



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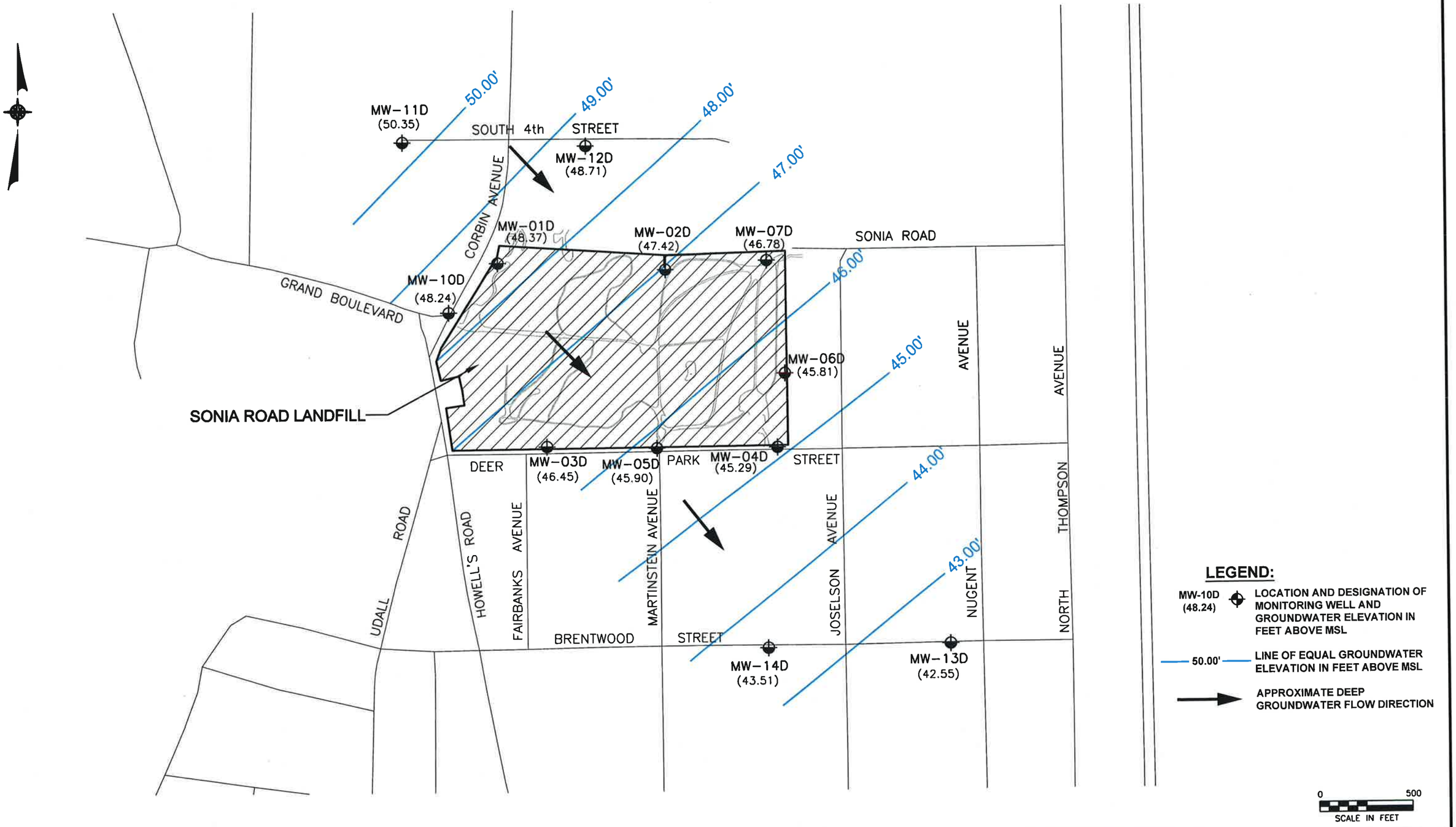
SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

POTENTIOMETERIC SURFACE ELEVATION CONTOUR MAP FOR INTERMEDIATE UPPER GLACIAL AQUIFER
NOVEMBER 12, 2013

FIGURE 6-2



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SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

POTENTIOMETERIC SURFACE ELEVATION CONTOUR MAP FOR DEEP UPPER GLACIAL AQUIFER
NOVEMBER 12, 2013

FIGURE 6-3

7.0 FINDINGS AND RECOMMENDATIONS

7.1 Findings

Groundwater Flow

Based on groundwater level measurements obtained during the November 2013 sampling event and the water table and 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 within 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 November 2013 sample results to the previous sampling event (August 2012), as well as review of the historical trend graphs in **Appendix B**, groundwater quality in the vicinity of the Sonia Road Landfill has not changed substantially.

The majority of monitoring wells sampled (15 out of 22), exhibited one or more of the following inorganic parameters: antimony (6 wells), hexavalent chromium (1 well), iron, (9 wells), manganese (15 wells) and sodium (1 well) at concentrations exceeding their respective groundwater standard/guidance value. The detected concentrations of the above inorganic parameters are likely not indicative of landfill-influenced groundwater, since concentrations of those parameters exceeding groundwater standards were detected in monitoring wells located upgradient and downgradient of the landfill.

Regarding leachate indicators, ammonia was detected at concentrations exceeding the groundwater standard in monitoring wells located upgradient and downgradient of the landfill. As a result, it appears unlikely that the source of the detected ammonia in groundwater is solely from the Sonia Road Landfill.

Regarding VOCs, PCE slightly exceeded the groundwater standard in well MW-07I (12 ug/l) and 1,2-DCA slightly exceeded the groundwater standard in well MW-11D (2.3 ug/l). It should be noted, wells MW-07I and MW-11D are upgradient wells as it pertains to groundwater flow direction, and therefore, the sources of PCE and 1,2-DCE are not related to the Sonia Road Landfill. No other VOCs were detected above groundwater standards or guidance values in any of the remaining twenty (20) monitoring wells.

7.2 Recommendations

Based on the results from the November 2013 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 15-month schedule, as approved by the NYSDEC, and in accordance with the SAP.

APPENDIX A-1

Monitoring Well Sample Results- 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 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)	20	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	0.10 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)	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 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)	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)	689	1,730	1,430	49.5	709	386	195	182	144
Hardness (as CaCO3)	-	-	(mg/l)	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)	0.61	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	36.3	81.6	75.0	5.0 U	42.8	20.9	14.8	7.32	10.6
Total Organic Carbon	-	-	(mg/l)	11.5	2.5	1.4	12.7	1.0	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	1,240	2,730	2,350	212	1190	729	446	399	388
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-01D 5/26/11 (mg/l)	MW-01D 2/28/12 (mg/l)	MW-01D 11/12/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5	30	40	15	1
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	22.9	25.6	27.0 D	14.4	13.1
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1 U	0.15	.1 U	0.0500 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U	.50 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	18.2	10 U	37.2	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	104	37.1	3.11	20.8	55.0
Hardness (as CaCO3)	-	-	(mg/l)	15.0	56.0	38	20	9.34
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	11.4	4.43	1.03 D	3.37 D	3.36 J
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	12.5	0.005 U	0.005 U	0.0120 UB
Sulfate	250 ST		(mg/l)	16.9	5 U	5 U	12.4	12.6
Total Organic Carbon	-	-	(mg/l)	1	2.7	2.8	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	279	136	50	1820	173
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1	0.65 U	1.97	0.86	1.37

NOTES:

NA: Not analyzed

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

J: Estimated value

D: Diluted.

: Concentration exceeds Standard/Guidance Value

U* or UB: Analyte considered undetected based on data validation criteria.

J*:Value is an apporximate 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-01I 2/21/07 (mg/l)	MW-01I 5/25/07 (mg/l)	MW-01I 8/15/07 (mg/l)	MW-01I 11/9/07 (mg/l)	MW-01I 2/11/08 (mg/l)	MW-01I 5/15/08 (mg/l)	MW-01I 8/5/08 (mg/l)	MW-01I 11/3/08 (mg/l)	MW-01I 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)	5	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	0.10 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)	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
Chemical Oxygen Demand	-	-	(mg/l)	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)	20.7	19.7	14.6	12.1	30.9	35.6	5.90	5.12	4.86
Hardness (as CaCO3)	-	-	(mg/l)	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)	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	16.2	14.6	15.0	17.4	11.9	11.9	19.4	14.7	18.4
Total Organic Carbon	-	-	(mg/l)	2.4	1.5	1 U	1.4	1 U	1 U	1.1	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	90	95	94	96	89	134	77	53	58
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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-01I 8/12/09 (mg/l)	MW-01I 2/4/10 (mg/l)	MW-01I 5/26/11 (mg/l)	MW-01I 2/28/12 (mg/l)	MW-01I 11/12/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5	10	5 U	15	1 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	10.0	8.90	6.40	10.20	6.06
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1U	.10 U	1.47	0.280
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U	.5 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10	10 U	10 U	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	6.97	8.25	11.7	19.2	120
Hardness (as CaCO3)	-	-	(mg/l)	24.0	25.0	22 D	22	95.3
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.94	1.27	0.80	0.83	0.910 J
Phenols, total	0.001 ST	-	(mg/l)	24.0	5 U	0.005 U	0.005 U	0.0100 U
Sulfate	250 ST		(mg/l)	21.9	13.2	9.89	6.86	3.34
Total Organic Carbon	-	-	(mg/l)	1	1 U	1 U	1U	1
Total Dissolved Solids	-	-	(mg/l)	58	63	84	72	265
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.13	0.55 U	0.10 U	1.46	1.46

NOTES:

NA: Not analyzed

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

J: Estimated value

D: Diluted.

: Concentration exceeds Standard/Guidance Value

U* or UB: Analyte considered undetected based on data validation criteria.

J*:Value is an apporximate 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 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)	30	NA	NA	NA	NA	NA	NA	60.0	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	242	181	200	173	192	152	170	170	146
Ammonia (as N)	2 ST.	7664-41-7	(mg/l)	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)	5	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
Chemical Oxygen Demand	-	-	(mg/l)	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)	69.3	125	90.8	86.0	57.1	81.0	70.8	61.8	59.1
Hardness (as CaCO3)	-	-	(mg/l)	360	280	270	18.0	230	188	240	200	280
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	141	71.8	56	46.9	65.7	48.0	111	62.7	61.7
Total Organic Carbon	-	-	(mg/l)	12.0	9.6	9.4	6.8	8.4	6.1	9.7	7.8	6.0
Total Dissolved Solids	-	-	(mg/l)	562	498	459	395	379	386	477	365	329
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-01S 5/26/11 (mg/l)	MW-01S 2/28/12 (mg/l)	MW-01S 11/12/2013 (mg/l)
Color (APHA Units)	-	-	(units)	50	20	30	55	15
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	168	157	137 D	120 D	120
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1 U	0.41	0.7	0.543
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U	0.5 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	32.7	19.4	18.6	29.3	11.3
Chloride	250 ST	16887-00-6	(mg/l)	106	46.4	175 D	60.9	42.0
Hardness (as CaCO3)	-	-	(mg/l)	200	170	220 D	220 D	133
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.14	0.33	0.16	.1 U	0.100 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.00560 UB
Sulfate	250 ST		(mg/l)	86.0	47.1	57.8 D	39.8	36.9
Total Organic Carbon	-	-	(mg/l)	8.6	6.8	6.4	5.9	4.6
Total Dissolved Solids	-	-	(mg/l)	421	322	499	336	262
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.81	0.74 U	0.63 U*	0.66	2.05

NOTES:

NA: Not analyzed

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

J: Estimated value

D: Diluted.

: Concentration exceeds Standard/Guidance Value

U* or UB: Analyte considered undetected based on data validation criteria.

J*:Value is an apporximate 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 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 11/3/08 (mg/l)	MW-02D 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)	5	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	0.10 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
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
Chemical Oxygen Demand	-	-	(mg/l)	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)	6.7	5.8	5.6	6.2	5.7	4.86	4.66	4.98	4.64
Hardness (as CaCO3)	-	-	(mg/l)	40.0	25	26	22	28	22.0	21.0	22.0	120
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	19.3	19.3	19.1	13.4	17.0	16.1	15.3	14.7	11.7
Total Organic Carbon	-	-	(mg/l)	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2.3	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	67	59	62	51	68	55	53	47	42
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-02D 5/31/11 (mg/l)	MW-02D 2/28/12 (mg/l)	MW-02D 11/12/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5	5	5 U	5 U	1 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	8.30	7.60	9.60	70.6 D	12.1
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1 U	0.10 U	1.81	0.0500 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	10 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	11.3	5.38	5.92	38.4	25.0
Hardness (as CaCO3)	-	-	(mg/l)	23.0	19.0	23	100	36.2
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.45	0.46	2.05 D	0.1 U	1.41 J
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0190 UB
Sulfate	250 ST		(mg/l)	17.5	11.3	13.4	20.8	11.7
Total Organic Carbon	-	-	(mg/l)	1	1 U	1.0 U	1.5	1 U
Total Dissolved Solids	-	-	(mg/l)	62	56	61	183	95.0
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1U	0.23	0.10 U	1.88	0.817

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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-02I 2/22/07 (mg/l)	MW-02I 5/25/07 (mg/l)	MW-02I 8/14/07 (mg/l)	MW-02I 11/13/07 (mg/l)	MW-02I 2/12/08 (mg/l)	MW-02I 5/19/08 (mg/l)	MW-02I 8/4/08 (mg/l)	MW-02I 11/3/08 (mg/l)	MW-02I 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)	5	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	20.9	31.0	41.0	49.8	35.0	34.0	34.7	30.1	23.2
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	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	-	-	(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)	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	1035	10 UJ	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	37.9	35.4	40.3	28.3	16.2	19.1	15.2	14.8	16.5
Hardness (as CaCO3)	-	-	(mg/l)	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)	1.74	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	23.6	46.6	32.1	24.4	12.8	9.05	8.07	8.98	13.4
Total Organic Carbon	-	-	(mg/l)	1.3	1.8	1.4	2.3	1 U	1 U	1.1	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	159	146	194	139	95	101	86	73	86
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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-02I 8/14/09 (mg/l)	MW-02I 2/8/10 (mg/l)	MW-02I 5/31/11 (mg/l)	MW-02I 2/28/12 (mg/l)	MW-02I 11/12/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5	5	5	5 U	1
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	28.1	29.6	44.9	11.7	52.5
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	2.95	0.1 U	4.08
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10	10 U	10 U	10 U	3.44 J
Chloride	250 ST	16887-00-6	(mg/l)	26.7	20.0	16.9	14.9	34.0
Hardness (as CaCO3)	-	-	(mg/l)	44.0	42.0	44	34	73.9
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.35	1.80	0.42	1.76	0.900 J
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	23.4	0.005 U	0.005 U	0.0140 UB
Sulfate	250 ST		(mg/l)	19.1	9.82	19	91.7	17.8
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1.2	1 U	1.1
Total Dissolved Solids	-	-	(mg/l)	103	105	98	77	140
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.13	1.74	3.22	2.03	6.38

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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 (mg/l)	MW-02S (mg/l)	MW-02S (mg/l)	MW-02S (mg/l)	MW-02S (mg/l)	MW-02S (mg/l)	MW-02S (mg/l)	MW-02S (mg/l)	MW-02S (mg/l)
Color (APHA Units)	-	-	(units)									
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)									
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	A	A	A	A	A	A	A	A	A
Biochemical Oxygen Demand	-	-	(mg/l)	B	B	B	B	B	B	B	B	B
Bromide	2 GV	24959-67-9	(mg/l)	A	A	A	A	A	A	A	A	A
Chemical Oxygen Demand	-	-	(mg/l)	N	N	N	N	N	N	N	N	N
Chloride	250 ST	16887-00-6	(mg/l)	D	D	D	D	D	D	D	D	D
Hardness (as CaCO3)	-	-	(mg/l)	O	O	O	O	O	O	O	O	O
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	N	N	N	N	N	N	N	N	N
Phenols, total	0.001 ST	-	(mg/l)	E	E	E	E	E	E	E	E	E
Sulfate	250 ST	14808-79-8	(mg/l)	D	D	D	D	D	D	D	D	D
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 (mg/l)	MW-02S (mg/l)	MW-02S (mg/l)
Color (APHA Units)	-	-	(units)			
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)			
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	A	A	A
Biochemical Oxygen Demand	-	-	(mg/l)	B	B	B
Bromide	2 GV	24959-67-9	(mg/l)	A	A	A
Chemical Oxygen Demand	-	-	(mg/l)	N	N	N
Chloride	250 ST	16887-00-6	(mg/l)	D	D	D
Hardness (as CaCO3)	-	-	(mg/l)	O	O	O
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	N	N	N
Phenols, total	0.001 ST	-	(mg/l)	E	E	E
Sulfate	250 ST		(mg/l)	D	D	D
Total Organic Carbon	-	-	(mg/l)			
Total Dissolved Solids	-	-	(mg/l)			
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)			

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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 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)	100	NA	NA	NA	NA	NA	NA	50	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	288	326	288	259	228	278	240	217	236
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	2.88	2.96	2.96	2.22	1.17	1.61	1.73	1.3	1.16
Biochemical Oxygen Demand	-	-	(mg/l)	21	12	12	19	16	11	11	14.3	14.4
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
Chemical Oxygen Demand	-	-	(mg/l)	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)	45.8	43.5	37.5	38.2	37.2	36.3	34.0	33.8	34.9
Hardness (as CaCO3)	-	-	(mg/l)	320	340	270	234	240	260	220	220	450
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	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)	8.8	9.8	7.9	7.4	6.7	7.1	7.2	6.8	5.7
Total Dissolved Solids	-	-	(mg/l)	364	410	360	347	293	337	330	278	329
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-03S 6/1/11 (mg/l)	MW-03S 8/28/12 (mg/l)	MW-03S 11/13/2013 (mg/l)
Color (APHA Units)	-	-	(units)	200	200	150 D	125 D	25
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	304	259	210 D	186 D	222
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.67	1.27	2.27	1.75 D	1.70
Biochemical Oxygen Demand	-	-	(mg/l)	9	16	9	14	22
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	30.3	21.8	25.9	29.9	4.07 J
Chloride	250 ST	16887-00-6	(mg/l)	48.8	53.8	50	49.4	56.0
Hardness (as CaCO3)	-	-	(mg/l)	300	240	220 D	270 D	183
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.24	0.10 U	.1 U	0.100 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.00663 UB
Sulfate	250 ST		(mg/l)	9.30	5 U	5 U	5 U	4.48
Total Organic Carbon	-	-	(mg/l)	8.9	6.4	7.5	6.2	6.3
Total Dissolved Solids	-	-	(mg/l)	419	338	304	324	333
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	2.40	3.55	2.69	2.15	4.82

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LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	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)	30	NA	NA	NA	NA	NA	NA	80.0	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	0.10 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
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
Chemical Oxygen Demand	-	-	(mg/l)	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	7.6	U*	9.9	10.7	8.38	6.23	8.47	20.2
Hardness (as CaCO3)	-	-	(mg/l)	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)	0.76	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	.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)	21.5	19.8	17.0	19	21.6	18.9	13.8	11.5	10.3
Total Organic Carbon	-	-	(mg/l)	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	95	U*	101	96	99	70	64	90
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-04D 5/26/11 (mg/l)	MW-04D 8/27/12 (mg/l)	MW-04D 11/13/2013 (mg/l)
Color (APHA Units)	-	-	(units)	140	20	30	10	10
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	28.5	18.4	18.8	19.7	110
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.39	0.1 U	0.10 U	0.22	0.180
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	8 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	39.6	13.0	20.9	17.5	55.0
Hardness (as CaCO3)	-	-	(mg/l)	54.0	40.0	47	48 D	68.8
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.50	0.42	0.37	0.100 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	16.3	0.005 U	0.005 U	0.00592 UB
Sulfate	250 ST		(mg/l)	16.8	11.0	15.3	12.6	37.0
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1.8
Total Dissolved Solids	-	-	(mg/l)	177	72	97	92	209
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.50	0.21 U	0.10 U	0.1 U	1.67

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CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-04I 2/23/07 (mg/l)	MW-04I 5/24/07 (mg/l)	MW-04I 8/10/07 (mg/l)	MW-04I 11/13/07 (mg/l)	MW-04I 2/11/08 (mg/l)	MW-04I 5/15/08 (mg/l)	MW-04I 8/5/08 (mg/l)	MW-04I 11/3/08 (mg/l)	MW-04I 2/23/09 (mg/l)
Color (APHA Units)	-	-	(units)	20	NA	NA	NA	NA	NA	NA	100	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	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)	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 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)	13.0	10 U	U*	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	20.8	21.3	42.1	26.5	48.7	32.0	47.1	39.6	55.1
Hardness (as CaCO3)	-	-	(mg/l)	85	85	230	112	130	88.0	116	94.0	200
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	12.3	12.4	5.0 U	10.5	18.4	13.5	10.3	20.5	32.1
Total Organic Carbon	-	-	(mg/l)	1.4	2.5	6.6	2.2	3.2	1 U	2.2	1.5	1.3
Total Dissolved Solids	-	-	(mg/l)	134	158	338	181	217	147	192	144	219
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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-04I 8/12/09 (mg/l)	MW-04I 2/4/10 (mg/l)	MW-04I 5/26/11 (mg/l)	MW-04I 8/27/12 (mg/l)	MW-04I 11/13/2013 (mg/l)
Color (APHA Units)	-	-	(units)	200	10	70	75 D	15
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	243	75.1	52.4 U	141 D	104
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.37	0.1 U	0.1 U	0.22	1.42
Biochemical Oxygen Demand	-	-	(mg/l)	17 J*	2 U	2 U	6	8 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	27.9	10 U	10 U	14.7	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	79.6	48.8	19.1	83.9 D	93.0
Hardness (as CaCO3)	-	-	(mg/l)	180	92.0	58 D	180 D	76.3
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.28	0.83	0.1 U	0.1 U	0.0503 J
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.00780 UB
Sulfate	250 ST		(mg/l)	11.3 U	19.9	14.8	7.08	22.6
Total Organic Carbon	-	-	(mg/l)	3.6	1.2	1.1	2.3	2.8
Total Dissolved Solids	-	-	(mg/l)	337	200	111	326	287
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.90	0.64 U	0.15 U*	0.23	3.80

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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 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)	60	NA	NA	NA	NA	NA	NA	100	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	285	321	316	342	296	300	332	288	311
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	5.47	5.62	4.99	5.28	3.54	4.80	4.97	2.1	3.15
Biochemical Oxygen Demand	-	-	(mg/l)	20	12	18	9	12	11	20	15.9	22.0
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
Chemical Oxygen Demand	-	-	(mg/l)	58.6	25.7	U*	43.4	21.8	26.8	26.8	66.5	10 U
Chloride	250 ST	16887-00-6	(mg/l)	70.7	71.7	61.2	68.1	57.4	60.2	55.0	49.9	48.6
Hardness (as CaCO3)	-	-	(mg/l)	1,100	310	320	290	280	260	268	300	510
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	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)	8.2	8.9	8.5	7.9	7.4	7.0	8.1	8.6	4.8
Total Dissolved Solids	-	-	(mg/l)	416	435	460	440	417	422	416	385	396
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-04S 5/31/11 (mg/l)	MW-04S 8/27/12 (mg/l)	MW-04S 11/13/2013 (mg/l)
Color (APHA Units)	-	-	(units)	120	60	300 D	75 D	30
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	350	297	292 D	290 D	338
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	2.61	2.66	5.73 D	3.64	3.97
Biochemical Oxygen Demand	-	-	(mg/l)	19 J*	14	17 J*	17	32
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.50 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	23.0	36.0	28.6	26	26.2
Chloride	250 ST	16887-00-6	(mg/l)	48.4	49.9	52.4 D	52.7 D	45.0
Hardness (as CaCO3)	-	-	(mg/l)	290	275	300 D	310 D	245
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.11	0.10 UU*J*	.1 U	0.0773 J
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0107 UB
Sulfate	250 ST		(mg/l)	10.2	5 U	5.00 U	5 U	2.00 U
Total Organic Carbon	-	-	(mg/l)	6.3	5.4	6.6	5.8	6.7
Total Dissolved Solids	-	-	(mg/l)	398	378	432	448	394
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	5.38	4.79	6.03 D	4.30 D	8.92

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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 2/21/07 (mg/l)	MW-05D 5/25/07 (mg/l)	MW-05D 8/14/07 (mg/l)	MW-05D 11/13/07 (mg/l)	MW-05D 2/11/08 (mg/l)	MW-05D 5/15/08 (mg/l)	MW-05D 8/5/08 (mg/l)	MW-05D 11/5/08 (mg/l)	MW-05D 2/26/09 (mg/l)
Color (APHA Units)	-	-	(units)	5	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	42.3	73	59.8	31.5	48.5	19.2	37.4	27.1	19.6
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.10 U	0.10 U	0.46	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	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
Chemical Oxygen Demand	-	-	(mg/l)	20.6	20.6	18.1	20.6	19.4	19.4	10 U	11.9	10 U
Chloride	250 ST	16887-00-6	(mg/l)	61.0	48.5	44.2	42.6	82.6	65.9	46.7	37.4	35.8
Hardness (as CaCO3)	-	-	(mg/l)	160	200	180	120	180	152	132	150	220
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	2.84	1.57	2.4	4.33	1.60	3.64	5.60	7.65	9.56
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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	85.5	157	103	77.1	82.7	80.9	105	90.6	53.2
Total Organic Carbon	-	-	(mg/l)	2.9	3.6	3.3	2.9	2.4	3.2	2.0	1.4	1 U
Total Dissolved Solids	-	-	(mg/l)	303	348	369	275	351	296	292	262	237
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.00	1.33	1.3	0.58	0.96	0.94	0.52	0.27	0.1 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-05D 8/17/09 (mg/l)	MW-05D 2/8/10 (mg/l)	MW-05D 6/1/11 (mg/l)	MW-05D 8/28/12 (mg/l)	MW-05D 11/13/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	10	5 U	5	1 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	23.5	12.4	13.4	14.6 D	9.09
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.13	.1 U	0.0500 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	12	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	67.5	46.4	34.5	9.32	13.0
Hardness (as CaCO3)	-	-	(mg/l)	110	82.0	70	19	25.5
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	4.45	5.28	2.3 D	1.6	1.07
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0216 UB
Sulfate	250 ST		(mg/l)	84.0	29.3	49.9 D	20.1	29.4
Total Organic Carbon	-	-	(mg/l)	1.0	1.2	1.2	1 U	1.2
Total Dissolved Solids	-	-	(mg/l)	300	179	163	98	110
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.41	1.37	0.19	0.62	1.07

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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-05I 2/21/07 (mg/l)	MW-05I 5/25/07 (mg/l)	MW-05I 8/14/07 (mg/l)	MW-05I 11/13/07 (mg/l)	MW-05I 2/11/08 (mg/l)	MW-05I 5/15/08 (mg/l)	MW-05I 8/5/08 (mg/l)	MW-05I 11/5/08 (mg/l)	MW-05I 2/26/09 (mg/l)
Color (APHA Units)	-	-	(units)	20	NA	NA	NA	NA	NA	NA	40.0	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	0.10 U	0.10 U	1.52	0.10 U	0.28 UJ	0.53	0.1 U	0.1 U	0.1 UJ*
Biochemical Oxygen Demand	-	-	(mg/l)	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 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)	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)	33.7	59.1	62.3	61.6	52.9	51.4	18.1	21.0	22.6
Hardness (as CaCO3)	-	-	(mg/l)	120	130	180	124	110	96.0	96.0	14.0	190
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.46	0.11	0.1 U	1.78	0.1 U	0.1 U	0.1 U	0.1 U	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	59.3	56.8	52.8	50.0	36.1	36.8	67.3	32.3	38.0
Total Organic Carbon	-	-	(mg/l)	3.1	3.9	3.4	3.4	3	2.9	3.1	1.4	1.0
Total Dissolved Solids	-	-	(mg/l)	207	267	286 J	297	212	223	203	126	151
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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-05I 8/17/09 (mg/l)	MW-05I 2/8/10 (mg/l)	MW-05I 5/31/11 (mg/l)	MW-05I 8/28/12 (mg/l)	MW-05I 11/13/2013 (mg/l)
Color (APHA Units)	-	-	(units)	10	60	250 D	100 D	25
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	42.3	38.3	57.6 D	40.8	67.7
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.13	0.66	0.570
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2	2 U	2 U	8 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	26.5	10 U	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	37.6	28.0	27.0	12.5	70.0
Hardness (as CaCO3)	-	-	(mg/l)	88.0	64.0	90 D	59	96.5
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.63	0.10 U	.1 U	0.100 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	16.7	0.005 U	0.005 U	0.0110 UB
Sulfate	250 ST		(mg/l)	32.7	22.5	28.7	12.9	70.6
Total Organic Carbon	-	-	(mg/l)	1.3	2.6	2.3	1 U	3.2
Total Dissolved Solids	-	-	(mg/l)	196	126	164	100	300
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.23	1.67	0.20	0.68	1.70

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HISTORIC AND CURRENT SAMPLE RESULTS
LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-05S 2/21/07 (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)	50	NA	NA	NA	NA	NA	NA	60.0	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	389	386	420	351	328	302	324	277	266
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	6.07	6.89	7.86	6.46	4.01	5.20	5.75	4.0	3.40
Biochemical Oxygen Demand	-	-	(mg/l)	12	12	23	16	10	9	2 U	15.2	15.5
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
Chemical Oxygen Demand	-	-	(mg/l)	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)	58.4	48.8	46.2	49	45.6	36.3	38.5	38.3	34.2
Hardness (as CaCO3)	-	-	(mg/l)	360	360	440	340	310	220	290	300	460
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	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	0.005 U	0.005 U	0.005 U	0.005 U	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	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)	10.3	11.1	10.9	9.5	7.9	8.1	1.4	8.9	5.8
Total Dissolved Solids	-	-	(mg/l)	451	454	502	456	395	363	403	371	372
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-05S 5/31/11 (mg/l)	MW-05S 8/29/12 (mg/l)	MW-05S 11/13/2013 (mg/l)
Color (APHA Units)	-	-	(units)	40	50	200 D	150 D	25
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	334	195	264 D	272 D	294
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	2.56	0.50	5.26 D	5.18 D	4.28
Biochemical Oxygen Demand	-	-	(mg/l)	15	18	2	18 UJ	22
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	32.7	21.8	29.2	26	7.55 J
Chloride	250 ST	16887-00-6	(mg/l)	49.3	35.0	46.6	39.8	47.0
Hardness (as CaCO3)	-	-	(mg/l)	320	280	270 D	330 D	208
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.18	0.17	0.1 UJ	0.100 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5.4	0.005 U	0.005 U	0.00571 UB
Sulfate	250 ST		(mg/l)	11.6	22.8	5 U	5 U	2.56
Total Organic Carbon	-	-	(mg/l)	8.7	4.8	7.4	1.6	7
Total Dissolved Solids	-	-	(mg/l)	496	313	357	383	956
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	7.62	5.79	5.66 D	5.42 D	7.66

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LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	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	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	0.10 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
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
Chemical Oxygen Demand	-	-	(mg/l)	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)	14.7	14.1	U*	13.9	16.8	15.8	23.9	25.5	29.3
Hardness (as CaCO3)	-	-	(mg/l)	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)	0.73	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	17.9	16.7	16.6	17.7	17.3	16.9	19.8	19.4	14.0
Total Organic Carbon	-	-	(mg/l)	1.0	1.2	1.0 U	1.7	1.0	1 U	1.4	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	74	72	U*	74	85	97	117	109	131
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-06D 5/26/11 (mg/l)	MW-06D 8/27/12 (mg/l)	MW-06D 11/12/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5	5	5 U	15	1 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	32.3	13.6	16.8	10.9	14.1
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.1 U	0.23	0.868
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10.9	10 U	10 U	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	25.0	28.0	24.0	24.8	19.0
Hardness (as CaCO3)	-	-	(mg/l)	40.0	36.0	36 D	36 D	25.1
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.75	0.68	0.36	0.68	1.55 J
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U
Sulfate	250 ST		(mg/l)	24.5	20.1	26.9	21	14.7
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	130	101	99	107	87.0
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.1 U	0.1 U	.5 U	2.40

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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-06I 2/22/07 (mg/l)	MW-06I 5/24/07 (mg/l)	MW-06I 8/10/07 (mg/l)	MW-06I 11/9/07 (mg/l)	MW-06I 2/11/08 (mg/l)	MW-06I 5/15/08 (mg/l)	MW-06I 8/4/08 (mg/l)	MW-06I 11/3/08 (mg/l)	MW-06I 2/23/09 (mg/l)
Color (APHA Units)	-	-	(units)	5	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	4.61	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)	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
Chemical Oxygen Demand	-	-	(mg/l)	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)	31.8	32.3	29.9	36.4	26.3	16.8	25.5	16.7	17.9
Hardness (as CaCO3)	-	-	(mg/l)	70.0	72	76	76	58	52.0	56.0	56.0	150 J*
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	22.1	19.9	24.1	21.2	14.1	11.6	9.42	9.38	9.31
Total Organic Carbon	-	-	(mg/l)	1.3	1.0	1.3	1.2	1 U	1.0	1 U	1.0	1.1
Total Dissolved Solids	-	-	(mg/l)	147	161	166	184	108	111	137	105	92
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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-06I 8/11/09 (mg/l)	MW-06I 2/4/10 (mg/l)	MW-06I 5/26/11 (mg/l)	MW-06I 8/27/12 (mg/l)	MW-06I 11/12/2013 (mg/l)
Color (APHA Units)	-	-	(units)	10	10	5 U	5	1 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	26.3	24.9	37.1	39.3	34.3
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.26	0.35	0.0500 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	1.33 J
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	30.7	23.2	33.9	27.2	23.0
Hardness (as CaCO3)	-	-	(mg/l)	45.0	45.0	80 D	52 D	39.8
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	1.11 J*	0.86 D	2.08 U	2.32 J
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U
Sulfate	250 ST		(mg/l)	11.1	9.46	56.2 D	15	8.66
Total Organic Carbon	-	-	(mg/l)	1.0	1 U	1 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	124	98	188	129	99.0
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.41	0.25 U	0.35 U*	0.28 U	0.961

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POST CLOSURE GROUNDWATER MONITORING PROGRAM
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CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	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	NA	NA	NA	NA	NA	NA	100	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	216	258	166	289	291	222	209	286	209
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	4.42	4.65	3.04	5.15	3.42	4.43	4.23	3.7	2.60
Biochemical Oxygen Demand	-	-	(mg/l)	9	10	4	140	8	3	2 U	8.6	10.3
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
Chemical Oxygen Demand	-	-	(mg/l)	35.8	25.7	U*	38.3	24.3	11.9	21.8	26.8	10 U
Chloride	250 ST	16887-00-6	(mg/l)	28.8	41.0	33.0	32.4	41.9	46.3	30.7	39.3	34.8
Hardness (as CaCO3)	-	-	(mg/l)	240	260	160	500	260	210	190	360	480
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	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
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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	5.0 U	5.0 U	5.1	5.0 U	5.0 U	8.50	5 U	5 U	5 U
Total Organic Carbon	-	-	(mg/l)	6.6	9.5	5.0	8.0	7.1	6.3	4.9	8.5	4.5
Total Dissolved Solids	-	-	(mg/l)	246	331	233	348	368	327	268	344	324
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-06S 5/26/11 (mg/l)	MW-06S 8/27/12 (mg/l)	MW-06S 11/13/2013 (mg/l)
Color (APHA Units)	-	-	(units)	100	70	100 D	75	20
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	220	77.7	259 D	223 D	293
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.41 J*	1.46	5.90 D	3.89	2.60
Biochemical Oxygen Demand	-	-	(mg/l)	8 J*	8	10 J*	13	16
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	25.4	21.8	20.0	25.3	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	21.9	23.0	27.9	49.5	27.0
Hardness (as CaCO3)	-	-	(mg/l)	200	180	240	250 D	180
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.50	0.20	0.10 U	0.1 U	0.100 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U
Sulfate	250 ST	-	(mg/l)	7.40	5 U	5 U	5 U	1.99 J
Total Organic Carbon	-	-	(mg/l)	5.4	3.3	8.1 J*	4.1	4
Total Dissolved Solids	-	-	(mg/l)	277	228	329	378	276
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	4.08	3.37	7.07 D	0.5 U	5.08

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HISTORIC AND CURRENT SAMPLE RESULTS
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CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-07I 2/22/07 (mg/l)	MW-07I 5/24/07 (mg/l)	MW-07I 8/10/07 (mg/l)	MW-07I 11/14/07 (mg/l)	MW-07I 2/11/08 (mg/l)	MW-07I 5/19/08 (mg/l)	MW-07I 8/5/08 (mg/l)	MW-07I 11/5/08 (mg/l)	MW-07I 2/24/09 (mg/l)
Color (APHA Units)	-	-	(units)	5	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	0.10 U	0.10 U	1.68	1.76	1.22	0.93	0.86	0.2	0.32
Biochemical Oxygen Demand	-	-	(mg/l)	4	3	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
Chemical Oxygen Demand	-	-	(mg/l)	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)	49.7	43.7	35.0	37.7	46.0	44.3	44.6	49.0	36.5
Hardness (as CaCO3)	-	-	(mg/l)	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)	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	11.5	28.9	24.1	21.9	14.7	10.1	6.75	6.98	11.4
Total Organic Carbon	-	-	(mg/l)	1.2	1.7	3	1.4	1 U	1.1	8.9	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	148	147	162	326	126	149	163	157	123
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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-07I 8/14/09 (mg/l)	MW-07I 2/8/10 (mg/l)	MW-07I 5/26/11 (mg/l)	MW-07I 8/27/12 (mg/l)	MW-07I 11/12/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	5 U	5 U	I U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	29.5	22.0	42.3	30.5	23.2
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.13	0.1 U	0.87	0.51	0.288
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	7	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 UJ	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	74.0	43.3	67.8 D	44.3 D	33.0
Hardness (as CaCO3)	-	-	(mg/l)	68.0	41.0	120 D	58 D	38.4
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.77	2.60	1.51 D	2.78 D	1.08 J
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	5 U	0.0100 U
Sulfate	250 ST		(mg/l)	20.6	12.9	28.1	7.7	9.37
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1.1	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	243	136	298	167	117
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.70	1.78	0.99 U*	1.36	1.93

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CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-11D 2/28/07 (mg/l)	MW-11D 6/1/07 (mg/l)	MW-11D 8/17/07 (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)	5	NA	NA	NA	NA	NA	NA	5	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	0.10 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
Bromide	2 GV	24959-67-9	(mg/l)	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	30.7	10 U	10.5	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	25.0	21.9	22.9	23.1	21.4	19.6	20.6	20.7	15.6
Hardness (as CaCO3)	-	-	(mg/l)	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)	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	21.7	27.8	21.8	18.7	18.6	16.7	15.8	16.4	19.3
Total Organic Carbon	-	-	(mg/l)	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)	130	155	166	169	128	121	115	103	211
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-11D 5/27/11 (mg/l)	MW-11D 8/29/12 (mg/l)	MW-11D 11/14/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	250	5 U	15	1 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	9.55	101	95.0 D	55.4 D	11.1
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.14	0.1 U	0.0500 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	16	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	136	10 U	5.34 J
Chloride	250 ST	16887-00-6	(mg/l)	19.9	39.0	10.3	60 D	21.0
Hardness (as CaCO3)	-	-	(mg/l)	27.0	105	270 D	460 DJ	43.6
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	2.77	2.22	0.10 U	0.42	4.25
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.0254	0.005 U	0.0100 U
Sulfate	250 ST		(mg/l)	24.4	15.9	16.3	38.1	28.7
Total Organic Carbon	-	-	(mg/l)	1U	2.5	3.3	1.6	1 U
Total Dissolved Solids	-	-	(mg/l)	104	197	138 D	252	161
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	7.58	0.77	0.5 U	2.02

NOTES:

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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-11I 2/28/07 (mg/l)	MW-11I 6/1/07 (mg/l)	MW-11I 8/16/07 (mg/l)	MW-11I 11/14/07 (mg/l)	MW-11I 2/12/08 (mg/l)	MW-11I 5/14/08 (mg/l)	MW-11I 8/6/08 (mg/l)	MW-11I 11/5/08 (mg/l)	MW-11I 2/25/09 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	0.10 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
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
Chemical Oxygen Demand	-	-	(mg/l)	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)	5.3	6.3	5.2	4.8	7.1	22.5	12.3	10.1	9.10
Hardness (as CaCO3)	-	-	(mg/l)	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)	0.70	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	13.1	14.5	16.9	18.9	15.1	8.93	11.5	12.7	11.1
Total Organic Carbon	-	-	(mg/l)	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)	47	53	71	78	60	104	63	53	82
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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-11I 8/13/09 (mg/l)	MW-11I 2/5/10 (mg/l)	MW-11I 5/27/11 (mg/l)	MW-11I 8/29/12 (mg/l)	MW-11I 11/14/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	150 D	5 U	1 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	2.05	2.95	2.10	2.45	5.00 U
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.10 U	0.15 U	0.0500 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	8.38	5.77	4.64	50.9 D	8.00
Hardness (as CaCO3)	-	-	(mg/l)	13	11.0	5 U	23	8.72
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.23	0.16	0.10 U	0.55	0.101
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U
Sulfate	250 ST		(mg/l)	16.7	10.6	9.22	12.2	9.51
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1.0 U	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	64	47	33	138	49.0
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.1 U	0.1 U	0.5 U	1.31

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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 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)	30	NA	NA	NA	NA	NA	NA	20.0	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	136	136	151	151	152	148	129	108	100
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	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)	4	4	2 U	2 U	2 U	6	3	4.2	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
Chemical Oxygen Demand	-	-	(mg/l)	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)	39.8	53.9	62.8	60.3	41.0	53.3	64.9	84.5	49.1
Hardness (as CaCO3)	-	-	(mg/l)	140	180	160	128	122	200	156	180	240
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	27.7	51.1	63.4	47.8	35.0	38.2	54.9	38.1	33.3
Total Organic Carbon	-	-	(mg/l)	3.8	8.0	6.6	5.9	4.1	5.7	5.4	3.8	2.6
Total Dissolved Solids	-	-	(mg/l)	276	322	373	345	283	323	369	317	265
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-11S 5/27/11 (mg/l)	MW-11S 8/29/12 (mg/l)	MW-11S 11/14/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	10	5 U	1 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	118	150	84 D	105 D	158
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.64	0.13 U	0.0500 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	23.0	10 U	10 U	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	61.6	92.0	64.4 D	82.3 D	53.5
Hardness (as CaCO3)	-	-	(mg/l)	145	170	130 D	148 D	146
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.21	1.42	0.65	1.27	0.279
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.00564 UB
Sulfate	250 ST		(mg/l)	63.3	49.2	37.0	41.1	32.4
Total Organic Carbon	-	-	(mg/l)	3.8	5.0	3.2	3.6	4.5
Total Dissolved Solids	-	-	(mg/l)	286	380	276	321	323
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.01 UJ*	1.19 U	0.57	0.5 U	2.06

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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 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	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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 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)	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)	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)	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)	6.9	7.7	10.6	20.5	21.7	27.6	31.0	29.3	33.6
Hardness (as CaCO3)	-	-	(mg/l)	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)	0.70	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	16.4	18.8	22.0	25.8	28.7	25.0	24.0	21.1	20.1
Total Organic Carbon	-	-	(mg/l)	1.0 U	1.0 U	1.0 U	1.3	1 U	1 U	1 U	109	1 U
Total Dissolved Solids	-	-	(mg/l)	70	69	85	128	112	128	140	1 U	127
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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 GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-12D 8/13/09 (mg/l)	MW-12D 2/5/10 (mg/l)	MW-12D 5/27/11 (mg/l)	MW-12D 8/29/12 (mg/l)	MW-12D 11/14/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	5 U	5 U	1 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	9.15	12.8	16	9.4	9.09
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.10 U	0.1 U	0.0500 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	12	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	40.1	26.4	8.80	9.06	8.00
Hardness (as CaCO3)	-	-	(mg/l)	53.0	42.0	30	22	22.8
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.79	1.79	2.70 D	2.94 D	1.46
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U
Sulfate	250 ST		(mg/l)	30.8	20.8	15.7	10.2	17.0
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1.0 U	0.1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	119	110	73	70	76.0
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.1 U	0.44	0.5 U	1.77

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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-12I 2/23/07 (mg/l)	MW-12I 6/1/07 (mg/l)	MW-12I 8/16/07 (mg/l)	MW-12I 11/14/07 (mg/l)	MW-12I 2/12/08 (mg/l)	MW-12I 5/14/08 (mg/l)	MW-12I 8/6/08 (mg/l)	MW-12I 11/5/08 (mg/l)	MW-12I 2/25/09 (mg/l)
Color (APHA Units)	-	-	(units)	5	NA	NA	NA	NA	NA	NA	5.00	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	58.8	4	24.6	17.8	20.2	22.4	31.1	23.7	34.0
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.02	0.10 U	2.42	0.64	0.23	3.96	3.92 J*	0.2	2.32
Biochemical Oxygen Demand	-	-	(mg/l)	50	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
Chemical Oxygen Demand	-	-	(mg/l)	78.8	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloride	250 ST	16887-00-6	(mg/l)	21.7	12.6	14.8	18.1	14.2	17.9	12.2	10.7	23.1
Hardness (as CaCO3)	-	-	(mg/l)	84.0	14.0	13.0	22.0	23.0	24.0	23.0	26.0	140
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.11	1.46	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	31.1	20.8	8.0	5.0 U	11.7	14.80	14.3	15.2	14.0
Total Organic Carbon	-	-	(mg/l)	21.3	1.1	1.0 U	1.0 U	1 U	1 U	1	1 U	1 U
Total Dissolved Solids	-	-	(mg/l)	124	74	62	54	72	84	79	58	105
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	3.99	3.95	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-12I 8/13/09 (mg/l)	MW-12I 2/5/10 (mg/l)	MW-12I 5/27/11 (mg/l)	MW-12I 8/29/12 (mg/l)	MW-12I 11/14/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	20	10	20	1
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	17.0	1 U	2.80	23.6 D	27.3
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.64	0.1 U	0.74	1.75	2.80
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	10	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10.9	10 U	12	10 U	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	46.1	20.0	12.6	31.8	40.5
Hardness (as CaCO3)	-	-	(mg/l)	30.0	24.0	26	38	58.9
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.48	3.88	3.32 D	0.79	0.455
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U
Sulfate	250 ST		(mg/l)	23.2	11.0	7.03	31	39.9
Total Organic Carbon	-	-	(mg/l)	1 U	1.0	2.1	1.3	1.3
Total Dissolved Solids	-	-	(mg/l)	155	77	74	110	177
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	6.49	1.13 U	2.18	2.03	4.98

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LEACHATE INDICATORS

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	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)	20	NA	NA	NA	NA	NA	NA	30.0	NA
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	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)	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 UJ*	0.1 U	0.1 U
Biochemical Oxygen Demand	-	-	(mg/l)	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)	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)	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)	25.5	27.7	17.8	23.9	32.9	28.5	32.4	44.1	38.0
Hardness (as CaCO3)	-	-	(mg/l)	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)	2.30	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	5 U
Sulfate	250 ST	14808-79-8	(mg/l)	25.0	21.6	33.2	29.9	33.2	32.0	34.6	36.2	28.3
Total Organic Carbon	-	-	(mg/l)	1.4	2.0	1.5	1.1	1.4	1.5	1.9	212	1 U
Total Dissolved Solids	-	-	(mg/l)	183	159	167	193	196	185	199	2.0	195
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	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)	MW-12S 5/27/11 (mg/l)	MW-12S 8/29/12 (mg/l)	MW-12S 11/14/2013 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	20	20	15	1 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	63.9	81.6	88.0 D	288 D	107
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.10 U	0.21 U	0.0500 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U
Chemical Oxygen Demand	-	-	(mg/l)	10.9	10 U	18.6	19.3	10.0 U
Chloride	250 ST	16887-00-6	(mg/l)	48.6	42.1	49.0	42.4	48.0
Hardness (as CaCO3)	-	-	(mg/l)	90.0	80.0	120 D	88 D	43.2
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.81	1.34	1.22	0.37	0.347
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.00671 UB
Sulfate	250 ST		(mg/l)	49.4	29.0	37.8	16.8	26.9
Total Organic Carbon	-	-	(mg/l)	1.4	1.2	3.3	5.1	1.8
Total Dissolved Solids	-	-	(mg/l)	200	192	233	227	258
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.56 U	0.63	0.15	1.48

NOTES:

NA: Not analyzed

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

J: Estimated value

D: Diluted.

: Concentration exceeds Standard/Guidance Value

U* or UB: Analyte considered undetected based on data validation criteria.

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

APPENDIX A-2

Monitoring Well Sample Results - Inorganic Parameters

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 2/21/2007 (ug/l)	MW-01D 5/25/2007 (ug/l)	MW-01D 8/17/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	1,290	121 B	NA	NA	NA	NA	NA	75.1 B
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.9 B	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	2.0 U	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	114 B	284	NA	NA	NA	NA	NA	59.8 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.71 B	NA	NA	NA	NA	NA	0.10 B
Boron	1,000 ST	7440-42-8	ug/l	85.0 B	166	NA	NA	NA	NA	NA	54.5 BN
Cadmium	5 ST	7440-43-9	ug/l	1.2 B	0.39 B	0.80 B	2.0 B	0.32 U	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	33,800	58,800	51,900	5,160	24,200	11,900	5,180	3,420 B
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	1.1 B
Chromium Total	50 ST	7440-47-3	ug/l	2.3 B	0.33 U	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	14.5 B	21.6 B	NA	NA	NA	NA	NA	1.9 B
Copper	200 ST	7440-50-8	ug/l	11.2 B	0.44 U	NA	NA	NA	NA	NA	3.1 B
Iron	300 ST	7439-89-6	ug/l	1,470	53.1 B	74.8 B	1,280	97.2 B	180	276	78.6 B
Lead	25 ST	7439-92-1	ug/l	12.7	1.1 U	1.7 U	4.9 J	1.5 B	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	8,340	15,800	12,100	1,320 B	5,250	2,840 B	1,330 B	811 B
Manganese	300 ST	7439-96-5	ug/l	118	882	1,570	106	990	352	184	126
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	6.9 B	15.8 B	NA	NA	NA	NA	NA	1.7 B
Potassium	-	7440-09-7	ug/l	23,800	12,700	10,400	33,400 J	33,400 J	2,360 B	2,040 B	1,550 B
Selenium	10 ST	7782-49-2	ug/l	3.4 B	3.0 U	NA	NA	NA	NA	NA	1.9 UN
Silver	50 ST	7440-22-4	ug/l	0.40 B	1.3 B	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	457,000	950,000	U*	23,700	462,000	250,000	159,000	150,000
Thallium	0.5 GV	7440-28-0	ug/l	3.4 B	2.2 U	NA	NA	NA	NA	NA	4.0 B
Vanadium	-	7440-62-2	ug/l	3.1 B	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	346	U*	NA	NA	NA	NA	NA	8.3 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	1,588	935.1	1,644.8	1,386	1,087.2	532	460	204.6

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 limit.

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

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

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 #	SITE: DATE: UNITS:	MW-01D 2/24/2009 (ug/l)	MW-01D 8/12/2009 (ug/l)	MW-01D 2/4/2010 (ug/l)	MW-01D 5/26/2011 (ug/l)	MW-01D 8/28/2012 (ug/l)	MW-01D 11/12/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	1,130	268	3,070	133 B	39.2		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	6.2 B	2.1 U	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	35.8 B	30.2 B	22.4 B	16.3 B	43.8		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.91 B	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	52.0 B	32.0 B	5.5 B	66.3 B	44		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.60 B	4.0 B	3.3 B	0.6 B	10 U		
Calcium	-	7440-70-2	ug/l	3,680 B	4,810 B	11,100	9,050	7,140	2,670		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	8.9 B	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	2.6 B	2.1 B	6.9 B	8.0 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	1.5 B	1.4 B	1.8 B	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	3.3 B	10.6 B	12.0 B	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	69.6 B	1,040	315 J*	3,780	104	20.1 UB		
Lead	25 ST	7439-92-1	ug/l	1.3 U	33	3.8	20.4	18.5	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	892 B	1,210 B	2,900 B	2,410 B	1510 B	650		
Manganese	300 ST	7439-96-5	ug/l	137	123	72.7	104	23	24.1		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	.1 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	2.0 B	2.9 B	3.9 B	1.7 B	20 U		
Potassium	-	7440-09-7	ug/l	1,750 B	1,840 B	6370	5,000	6,760	3,470		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 B	2.6 UNU*J*	2.8 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	130,000	78,100	15,100	2,980 B	26,300	13,000		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3.2 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	2.1 B	1.9 B	8.2 B	.6 B	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	30.8	49.7	76.4	29.8	11 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	47.6 UB		
Iron + Manganese	500 ST*	-	ug/l	206.6	1,163	387.7	3,884	127	44.2		

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 limit.

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

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

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 #	SITE: DATE: UNITS:	MW-01I 2/21/2007 (ug/l)	MW-01I 5/25/2007 (ug/l)	MW-01I 8/15/2007 (ug/l)	MW-01I 11/9/2007 (ug/l)	MW-01I 2/11/2008 (ug/l)	MW-01I 5/15/2008 (ug/l)	MW-01I 8/5/2008 (ug/l)	MW-01I 11/3/2008 (ug/l)
Aluminum	-	7429-90-5	ug/l	37.5 B	104 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	2.0 U	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	13.4 B	14.0 B	NA	NA	NA	NA	NA	6.7 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.55 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	304 B	237	NA	NA	NA	NA	NA	62.8 BN
Cadmium	5 ST	7440-43-9	ug/l	0.55 B	0.16 U	0.25 B	0.55 B	0.32 U	0.45 B	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	13,400	13,100	12,300	9,220	12,200	13,600	8,380	6,510
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.41 U
Chromium Total	50 ST	7440-47-3	ug/l	0.50 U	0.33 U	NA	NA	NA	NA	NA	0.02U
Cobalt	-	7440-48-4	ug/l	8.9 B	5.2 B	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	10 B	U*	NA	NA	NA	NA	NA	1.5 B
Iron	300 ST	7439-89-6	ug/l	112	102	8.5 B	122	24.2 U	31.7 B	21.4 B	27.6 B
Lead	25 ST	7439-92-1	ug/l	1.9 B	1.1 U	1.1 U	1.5 JB	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	3,280 B	3,160 B	3,390 B	2,800	3,420 B	3,960 B	2,280 B	1,830 B
Manganese	300 ST	7439-96-5	ug/l	121	81.9	456.5	178	463	343	336	148
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	14.5
Nickel	100 ST	7440-02-0	ug/l	8.1 B	3.9 B	NA	NA	NA	NA	NA	1.7 B
Potassium	-	7440-09-7	ug/l	2,840 B	2,280 B	1,960 B	2,020 J	1,650 B	1,950 B	1,970 B	1,390 B
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 UN
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 B	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	13,900	12,400	U*	10,200	12,300	15,400	11,400	8,450
Thallium	0.5 GV	7440-28-0	ug/l	2.9 U	2.2 U	NA	NA	NA	NA	NA	4.2 B
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	48.3	U*	NA	NA	NA	NA	NA	9.9 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	233	183.9	456.5	300	487.2	375	357.4	175.6

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 limit.

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

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

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-01I 2/24/2009 (ug/l)	MW-01I 8/12/2009 (ug/l)	MW-01I 2/4/2010 (ug/l)	MW-01I 5/26/2011 (ug/l)	MW-01I 8/28/2012 (ug/l)	MW-01I 11/12/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	12.5 U	118 B	8.2 U	38.2 B	10.8 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	8.0 B	7.9 B	4.9 B	10.1 B	83		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	52.2 B	47.9 B	24.4 B	33.8 B	83		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.26 U	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	6,160	6,620	6,500	5,290	6,230	27,400		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	.2 U	97.3		
Chromium Total	50 ST	7440-47-3	ug/l	NA	0.60 B	1.2 B	1.3 B	8.0 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.76 U	1.2 U	0.49 U	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.70 B	2.4 B	1.9 B	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	13.3 B	31.8 B	390 J*	71.0 B	13.8 B	8.88 UB		
Lead	25 ST	7439-92-1	ug/l	1.3 U	10.4	2.0 B	1.5 U	6.6	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	1,740 B	1,750 B	2,060 B	1,940 B	1340 B	6,560		
Manganese	300 ST	7439-96-5	ug/l	64.8	107	112	9.6 B	1,440	1,720		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	.1 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	2.4 B	1.2 U	2.1 B	20 U		
Potassium	-	7440-09-7	ug/l	1,130 B	1,400 B	1,580 B	1620 B	4150 B	6,850		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 U	2.6 UNU*J*	2.8 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	6,950	6,450	5,790	6,510	1,820	8,930		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3.9 B	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	0.56 U	.23 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	10.1 B	46.8	9.1 B	23.7	9.84 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10 U	48 UB		
Iron + Manganese	500 ST*	-	ug/l	78.1	138.8	502	80.6	1453.8	1,728.88		

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

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

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 #	SITE: DATE: UNITS:	MW-01S 2/21/2007 (ug/l)	MW-01S 5/25/2007 (ug/l)	MW-01S 8/15/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	19.2 B	188 B	NA	NA	NA	NA	NA	63.5 B
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	4.6 B	NA	NA	NA	NA	NA	3.5 B
Barium	1,000 ST	7440-39-3	ug/l	54.5 B	50.7 B	NA	NA	NA	NA	NA	45.7 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.48 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	196 B	141	NA	NA	NA	NA	NA	125 BN
Cadmium	5 ST	7440-43-9	ug/l	0.62 B	0.16 U	0.26 B	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	99,800	78,900	68,300	63,100	71,000	60,800	79,700	62,900
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.49 B
Chromium Total	50 ST	7440-47-3	ug/l	0.50 U	0.88 B	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	2.6 B	5.3 B	NA	NA	NA	NA	NA	2.0 B
Copper	200 ST	7440-50-8	ug/l	4.4 B	U*	NA	NA	NA	NA	NA	3.3 B
Iron	300 ST	7439-89-6	ug/l	**10,500**	**12,300**	**9,400**	**5,240**	**2,370**	**7,210**	**8,300**	**6,500**
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.1 U	1.1 U	1.4 UJ	2.1 B	2.3 U	2.5 B	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	19,800	12,900	9,480	9,110	11,000	8,960	11,700	9,990
Manganese	300 ST	7439-96-5	ug/l	**1,150**	**1,270**	**896**	**735**	**465**	**950**	**1080**	**799**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	1.8 U	0.78 U	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	13,800	12,800	14,900	13,900 J	11,800	12,600	14,700	15,900
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 UN
Silver	50 ST	7440-22-4	ug/l	0.47 B	0.65 B	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	**74,900**	**81,400**	U*	**59,800**	**54,300**	**57,400**	**58,100**	**56,200**
Thallium	0.5 GV	7440-28-0	ug/l	2.9 U	2.2 U	NA	NA	NA	NA	NA	4.1 B
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	31.4	U*	NA	NA	NA	NA	NA	14.8 B
Cyanide	200 ST	0057-12-5	ug/l	25.7	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	**11,650**	**13,570**	**10,296**	**5,975**	**2,835**	**8,160**	**9,380**	**7,299**

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

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

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-01S 2/24/2009 (ug/l)	MW-01S 8/14/2009 (ug/l)	MW-01S 2/4/2010 (ug/l)	MW-01S 5/26/2011 (ug/l)	MW-01S 8/28/2012 (ug/l)	MW-01S 11/12/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	197 B	44.6 B	8.2 U	53.8 B	13.4 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.1 U	12.5 J		
Arsenic	25 ST	7440-38-2	ug/l	NA	11.2	3.2 B	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	103 B	48.6 B	43.7 B	44 B	49.3		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	76.5 B	107	64.1 B	80.5 B	49		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.50 B	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	58,000	64,100	55,300	61,800	61,600	44,700		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.02 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	0.80 B	1.0 B	1.9 B	8.0 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	2.7 B	1.6 B	.88 B	1.7 B	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	2.1 B	2.4 B	2.4 B	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	6,150	24,700	4,040 J*	2,480	3,910	1,690		
Lead	25 ST	7439-92-1	ug/l	1.3 U	11.9	2.1 B	1.5 U	5.4	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	8,690	8,020	7,650	8,650	6,620	5,270		
Manganese	300 ST	7439-96-5	ug/l	1,030	1,190	591	1,000	723	377		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	1.4 U	1.2 U	1.4 B	20 U		
Potassium	-	7440-09-7	ug/l	12,400	13,100	13,500	16,500	16,200	13,300		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 U	2.6 UNU*J*	2.8 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	51,000	66,100	52,800	90,200	49,100	7,860		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3.5 B	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.90 B	1.4 U	0.56 U	.23 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	78.3	30.6	13.8	46	14 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	41.6 UB		
Iron + Manganese	500 ST*	-	ug/l	7,180	25,890	4,631	3,480	4,633	2,067		

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

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

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 #	SITE: DATE: UNITS:	MW-02D 2/22/2007 (ug/l)	MW-02D 5/25/2007 (ug/l)	MW-02D 8/15/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	34.0 B	103 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	2.0 U	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	6.4 U	4.6 B	NA	NA	NA	NA	NA	3.3 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.50 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	24.0 B	20.3 B	NA	NA	NA	NA	NA	13.5 BN
Cadmium	5 ST	7440-43-9	ug/l	0.28 U	0.16 U	0.17 B	0.32 B	0.60 B	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	6,260	5,500	6,320	5,460	5,540	4,990 B	4,830 B	4,620B
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	1.2 B
Chromium Total	50 ST	7440-47-3	ug/l	0.72 B	0.56 B	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	0.40 U	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	9.7 B	0.44 U	NA	NA	NA	NA	NA	1.8 B
Iron	300 ST	7439-89-6	ug/l	70.1 B	43.0 B	8.9 B	446	50.4	23.8 B	90.2 B	19.7 B
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.1 U	1.1 U	2.2 JB	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	3,120 B	2,640 B	2,950 B	2,630 B	2,570 B	2,380 B	2,330 B	2,290 B
Manganese	300 ST	7439-96-5	ug/l	3.6 B	2.1 B	2.1 B	11.6 B	1.8 B	1.7 B	4.2 B	1.0 B
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	1.8 U	0.78 U	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	889 B	711 B	754 B	997 JB	642 B	637 B	874 B	654 B
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 UN
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.87 B	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	6,310	5,030	U*	4,240 B	4,950 B	4,960 B	4,630 B	5,010
Thallium	0.5 GV	7440-28-0	ug/l	2.9 U	2.2 U	NA	NA	NA	NA	NA	2.9 B
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	U*	U*	NA	NA	NA	NA	NA	10.5 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	73.7	45.1	11.0	457.6	52.2	25.5	94.4	20.7

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

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

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-02D 2/24/2009 (ug/l)	MW-02D 8/14/2009 (ug/l)	MW-02D 2/8/2010 (ug/l)	MW-02D 5/31/2011 (ug/l)	MW-02D 8/28/2012 (ug/l)	MW-02D 11/12/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	181 B	132 B	36.7 B	45.1 B	20 U		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	6.0 B	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	225	4.2 B	5.3 B	72.8 B	15.2 J		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.20 B	0.30 B	0.73 B	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	196	18.8 B	23.6 B	35.6 B	15 J		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	1.1 B	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	4,600 B	95,700	4,150 B	5,380	34,500	7,980		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	1.4 B	2.2 B	2.2 B	8.0 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	1.0 B	1.2 U	0.70 B	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	1.4 B	1.8 B	1.4 B	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	30.7 B	26,900	215	39.0 B	37.7 B	29.9 UB		
Lead	25 ST	7439-92-1	ug/l	1.3 U	17.5	2.7 B	2.1 B	4	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	2,230 B	14,000	2,130 B	2,720 B	3340 B	3,950		
Manganese	300 ST	7439-96-5	ug/l	1.2 B	4,920	5.2 B	2.4 B	43.3	20 U		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UN	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	1.6 B	2.3 B	1 B	20 U		
Potassium	-	7440-09-7	ug/l	622 B	13,200	759 J*	1290 B	5330	826		
Selenium	10 ST	7782-49-2	ug/l	NA	4.6 U	2.5 U	2.6 UNU*J*	2.8 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UN	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	4,500 B	29,300	4,890 B	7,690	20,400	3,390		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3.2 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4U	0.76 B	.3 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	27.5	21.9	21.6	18.5 B	12.1 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	43 UB		
Iron + Manganese	500 ST*	-	ug/l	31.9	31,820	220.2	41.4	81.0	29.9		

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.

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

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

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 #	SITE: DATE: UNITS:	MW-02I 2/22/2007 (ug/l)	MW-02I 5/25/2007 (ug/l)	MW-02I 8/14/2007 (ug/l)	MW-02I 11/13/2007 (ug/l)	MW-02I 2/12/2008 (ug/l)	MW-02I 5/19/2008 (ug/l)	MW-02I 8/4/2008 (ug/l)	MW-02I 11/3/2008 (ug/l)
Aluminum	-	7429-90-5	ug/l	48.0 B	130 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	2.0 U	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	56.4 B	42.2 B	NA	NA	NA	NA	NA	32.3 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.58 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	117 B	95.4 B	NA	NA	NA	NA	NA	106 BN
Cadmium	5 ST	7440-43-9	ug/l	0.38 B	0.16 U	0.24 B	0.35 B	0.32 U	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	21,600	19,000	24,600	18,200	18,600	16,300	14,000	13,500
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.41 U
Chromium Total	50 ST	7440-47-3	ug/l	1.2 B	0.33 U	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	0.40 U	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	16.7 B	U*	NA	NA	NA	NA	NA	2.0 B
Iron	300 ST	7439-89-6	ug/l	186	87.5 B	6.7 B	183	24.2 U	20.3 B	10.0 B	13.7 B
Lead	25 ST	7439-92-1	ug/l	1.6 B	1.1 U	1.1 U	1.4 UJ	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	3,730 B	2,880 B	2,850 B	2,230 B	1,560 B	1,390 B	1,150 B	1,080 B
Manganese	300 ST	7439-96-5	ug/l	330	110	83	332	20.3	23.3	20.6	26.9
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	1.8 U	0.78 U	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	2,360 B	1,700 B	2,500 B	3,430 JB	1,590 B	1,670 B	3,900 B	4,610 B
Selenium	10 ST	7782-49-2	ug/l	1.8 B	3.0 U	NA	NA	NA	NA	NA	1.9 UN
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	18,700	15,200	U*	22,400	16,000	15,000	11,900	11,500
Thallium	0.5 GV	7440-28-0	ug/l	3.4 B	2.2 U	NA	NA	NA	NA	NA	3.9 B
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	U*	U*	NA	NA	NA	NA	NA	5.6 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	516	197.5	89.7	515	44.5	43.6	30.6	40.6

NOTES:

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Concentration exceeds Standard/Guidance Value.

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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-02I 2/24/2009 (ug/l)	MW-02I 8/14/2009 (ug/l)	MW-02I 2/8/2010 (ug/l)	MW-02I 5/31/2011 (ug/l)	MW-02I 8/28/2012 (ug/l)	MW-02I 11/12/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	81.1 B	39.3 B	32.3 B	49.5 B	7.35 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.1 U	6.58 J		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	38.2 B	37.8 B	45.0 B	5.4 B	62.9		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.26 B	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	53.3 B	51.6 B	36.9 B	20.6 B	63		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.26 U	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	13,800	15,500	14,700	13,900	7,540	25,400		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	1.9 B	0.60 B	2.1 B	8.0 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.76 U	1.2 U	0.49 U	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	1.2 B	2.1 B	1.0 B	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	26.0 B	42.1 B	63.7 B	110	35.2 B	20 U		
Lead	25 ST	7439-92-1	ug/l	1.3 U	4.1	3.3	2.1 B	8	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	1,260 B	1,250 B	1,550 B	1,620 B	3270 B	2,550		
Manganese	300 ST	7439-96-5	ug/l	39.6	38.4	28.2	25.6	2.4 B	14.8 J		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.12 BNU*	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	1.4 U	1.8 B	2.3 B	20 U		
Potassium	-	7440-09-7	ug/l	3,600 B	3,940 B	3,990 J*	3790 B	978 B	5,050		
Selenium	10 ST	7782-49-2	ug/l	NA	4.6 U	2.5 U	2.6 UNU*J*	2.8 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UN	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	10,800	10,600	10,400	18,600	7,630	4,130		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3.2 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	0.56 U	.23 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	6.8 B	12.6 B	17.8 B	20.8	12.6 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	45.4 UB		
Iron + Manganese	500 ST*	-	ug/l	65.6	80.5	91.9	135.6	37.6	14.8		

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

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

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

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

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

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

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

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-03S 2/22/2007 (ug/l)	MW-03S 6/1/2007 (ug/l)	MW-03S 8/14/2007 (ug/l)	MW-03S 11/14/2007 (ug/l)	MW-03S 2/11/2008 (ug/l)	MW-03S 5/15/2008 (ug/l)	MW-03S 8/5/2008 (ug/l)	MW-03S 11/5/2008 (ug/l)
Aluminum	-	7429-90-5	ug/l	367	63.6 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	2.2 B	NA	NA	NA	NA	NA	2.3 B
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	6.3 B	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	250	265	NA	NA	NA	NA	NA	166 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.30 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	201 B	231 B	NA	NA	NA	NA	NA	134 B
Cadmium	5 ST	7440-43-9	ug/l	0.92 B	0.27 B	0.16 U	0.32 U	1.4 B	0.41 B	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	82,400	91,900	76,000	73,600 J	67,300	76,100	69,500	66,200
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.02 U
Chromium Total	50 ST	7440-47-3	ug/l	1.7 B	0.33 U	NA	NA	NA	NA	NA	1.3 B
Cobalt	-	7440-48-4	ug/l	1.3 U	0.40 U	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	4.3 B	0.44 U	NA	NA	NA	NA	NA	2.5 B
Iron	300 ST	7439-89-6	ug/l	**28,700**	**29,900**	**25,200**	**24,600**	**17,200**	**25,200**	**21,500**	**18,500**
Lead	25 ST	7439-92-1	ug/l	1.9 B	1.1 U	1.1 U	1.4 U	1.4 U	2.3 B	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	13,600	14,200	11,600	11,200 J	10,400	11,900	11,400	10,300
Manganese	300 ST	7439-96-5	ug/l	**5,510**	**5,750**	**5,340**	**5,920 J**	**5,110**	**5,050**	**4,530**	**5,190**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	3.2 B	4.0 B	NA	NA	NA	NA	NA	2.1 B
Potassium	-	7440-09-7	ug/l	18,600	17,700	14,900	12,500	10,700	12,400	13,300	12,400
Selenium	10 ST	7782-49-2	ug/l	2.1 B	3.0 U	NA	NA	NA	NA	NA	1.9 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.85 B
Sodium	20,000 ST	7440-23-5	ug/l	**36,700**	**34,400**	U*	**29,100 J**	**27,200**	**28,900**	**27,600**	**25,200**
Thallium	0.5 GV	7440-28-0	ug/l	5.5 B	3.7 B	NA	NA	NA	NA	NA	1.9 U
Vanadium	-	7440-62-2	ug/l	2.3 B	2.0 B	NA	NA	NA	NA	NA	1.2 B
Zinc	2,000 ST	7440-66-6	ug/l	U*	4.8 B	NA	NA	NA	NA	NA	1.5 U
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	**34,310**	**35,650**	**30,540**	**30,520**	**22,310**	**30,250**	**26,030**	**23,690**

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

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

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-03S 2/25/2009 (ug/l)	MW-03S 8/14/2009 (ug/l)	MW-03S 2/5/2010 (ug/l)	MW-03S 6/1/2011 (ug/l)	MW-03S 8/28/2012 (ug/l)	MW-03S 11/13/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	183 B	277	40.4	66 B	13 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	221	251	145 B	202	199		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.24 B	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	183	160	126	202	97		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.80 B	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	73,600	93,600	75,700	57,600	64,500	58,900		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	0.80 B	1.5 B	1.6 B	8.0 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	1.4 B	1.2 U	0.49 U	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	2.0 B	0.83 U	0.55 U	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	24,300	26,600	25,400 J*	17,100	19,900	13,600		
Lead	25 ST	7439-92-1	ug/l	1.3 U	17.9	2.4 B	6.3	4.8	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	11,100	13,800	11,800	9,270	8,370	8640		
Manganese	300 ST	7439-96-5	ug/l	5,000	4,780	5,420	4,530	5,440	5,100		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	1.4	0.10 UN	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	2.4 B	2.0 B	1.6 B	20 U		
Potassium	-	7440-09-7	ug/l	12,200	12,900	13,900	12,500	11,100	12,400		
Selenium	10 ST	7782-49-2	ug/l	NA	4.6 U	2.5 U	2.6 UNU*J*	4.5 B	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 B	0.83 U	0.54 BN	.48 B	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	27,800	28,400	36,400	34,100	33,100	12,200		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	6.4 B	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	3.4 B	1.8 B	.23 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	30.4	39.3	18.0 B	13.1 B	12.8 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	47.1 UBJ		
Iron + Manganese	500 ST*	-	ug/l	29,300	31,380	30,820	21,630	25,340	18,700		

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.

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

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

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 #	SITE: DATE: UNITS:	MW-04D 2/23/2007 (ug/l)	MW-04D 5/24/2007 (ug/l)	MW-04D 8/10/2007 (ug/l)	MW-04D 11/13/2007 (ug/l)	MW-04D 02/1108 (ug/l)	MW-04D 5/15/2008 (ug/l)	MW-04D 8/4/2008 (ug/l)	MW-04D 11/3/2008 (ug/l)
Aluminum	-	7429-90-5	ug/l	31.2 B	69.0 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	8.1 B	5.1 B	NA	NA	NA	NA	NA	12.9
Barium	1,000 ST	7440-39-3	ug/l	37.1 B	32.9 B	NA	NA	NA	NA	NA	21.6 B
Beryllium	3 GV	7440-41-7	ug/l	1.1 B	1.2 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	64.6 B	61.1 B	NA	NA	NA	NA	NA	40.6 BN
Cadmium	5 ST	7440-43-9	ug/l	1.5 B	0.62 B	0.82 B	0.32 U	0.58 B	0.27 U	0.47 B	0.35 U
Calcium	-	7440-70-2	ug/l	18,400	15,900	20,700	16,600	15,700	12,700	9,450	9,600
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.57 B
Chromium Total	50 ST	7440-47-3	ug/l	1.6 B	0.43 B	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.8 B	1.5 B	NA	NA	NA	NA	NA	0.88U
Copper	200 ST	7440-50-8	ug/l	3.7 B	0.44 U	NA	NA	NA	NA	NA	2.6 B
Iron	300 ST	7439-89-6	ug/l	4,920	6,140	25,500	4,130	21,100	16,800	12,700	13,000
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.1 U	1.1 U	1.4 UJ	1.4 U	2.3 U	2.3 U	4.0
Magnesium	35,000 GV	7439-95-4	ug/l	2,820 B	2,410 B	3,100 B	2,570 B	2,350 B	1,950 B	1,490 B	1,460 B
Manganese	300 ST	7439-96-5	ug/l	446	443	722	251	680	506	403	419
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	1.8 U	0.79 B	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	5,410	4,650 B	5,280	4,360 J	3,830 B	3,720 B	3,800 B	3870 B
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 UN
Silver	50 ST	7440-22-4	ug/l	0.59 B	1.1 B	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	9,160	7,970	U*	7,480	9,590	9,100	7,280	7,150
Thallium	0.5 GV	7440-28-0	ug/l	4.9 B	2.2 U	NA	NA	NA	NA	NA	2.9 B
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	38.5	U*	NA	NA	NA	NA	NA	6.2 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	5,366	6,583	26,222	4,381	21,780	17,306	13,103	13,419

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.

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

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ST: Standard.

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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-04D 2/23/2009 (ug/l)	MW-04D 8/12/2009 (ug/l)	MW-04D 2/4/2010 (ug/l)	MW-04D 5/26/2011 (ug/l)	MW-04D 8/27/2012 (ug/l)	MW-04D 11/13/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	12.5 U	35.6 B	8.2 U	51.5 B	15.1 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.6 B	2.1 U	2.1 U	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	12.5	3.1 B	1.9 U	4.4 U	17.1 J		
Barium	1,000 ST	7440-39-3	ug/l	NA	44.9 B	23.6 B	27.0 B	1.3 U	115		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	28.1 B	39.1 B	25.7 B	41.1 B	85		
Cadmium	5 ST	7440-43-9	ug/l	0.48 B	0.26 U	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	12,500	18,400	10,600	12,900	13,100	22,300		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	0.49 U	0.51 B	0.89 B	0.02 U	20 U		
Cobalt	-	7440-48-4	ug/l	NA	1.6 B	1.2 U	0.62 B	1.2 B	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.62 U	3.6 B	1.6 B	0.52 U	20 U		
Iron	300 ST	7439-89-6	ug/l	17,700	24,400	4,240 J*	1,570	2,630	40,800		
Lead	25 ST	7439-92-1	ug/l	1.3 U	13.2	1.8 U	1.5 U	8.5	5.82 J		
Magnesium	35,000 GV	7439-95-4	ug/l	1,850 B	2,380 B	1,490 B	1,870 B	2000 B	3,180		
Manganese	300 ST	7439-96-5	ug/l	552	915	253	81	226	2,190		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	.1 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	1.4 U	8.5 B	3.0 B	5.25 J		
Potassium	-	7440-09-7	ug/l	3,720 B	4,680 B	3650 B	4520 B	4780 B	6,090		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 U	2.6 UNU*J*	2.4 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	7,130	10,800	5,900	9,120	10,000	12,900		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3.2 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	.56 U	0.32 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	11.2 B	24.5	51.2	26.1	15.7 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10 U	41.7 UBJ		
Iron + Manganese	500 ST*	-	ug/l	18,252	25,315	4,493	1,651	2,856	42,990		

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

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

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-04I 2/23/2007 (ug/l)	MW-04I 5/24/2007 (ug/l)	MW-04I 8/10/2007 (ug/l)	MW-04I 11/13/2007 (ug/l)	MW-04I 02/1108 (ug/l)	MW-04I 5/15/2008 (ug/l)	MW-04I 8/5/2008 (ug/l)	MW-04I 11/3/2008 (ug/l)
Aluminum	-	7429-90-5	ug/l	18.9 B	63.8 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.7 B	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	7.5 B	2.0 U	NA	NA	NA	NA	NA	11.8
Barium	1,000 ST	7440-39-3	ug/l	30.3 B	33.1 B	NA	NA	NA	NA	NA	33.6 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.58 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	80.9 B	89.6 B	NA	NA	NA	NA	NA	81.8 BN
Cadmium	5 ST	7440-43-9	ug/l	0.28 U	0.20 B	0.16 U	0.32 U	0.58 B	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	28,700	31,600	76,800	36,400	42,300	24,600	32,600	28,100
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.45 B
Chromium Total	50 ST	7440-47-3	ug/l	0.74 B	0.33 U	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	0.40 U	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	7.1 B	U*	NA	NA	NA	NA	NA	3.3B
Iron	300 ST	7439-89-6	ug/l	4,420	2,900	54,400	1,610	30,900	20,400	25,900	21,400
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.1 U	1.1 U	1.4 UJ	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	3,020	3,240 B	9,030	3,800 B	4,560	2,700 B	3,760 B	3,060 B
Manganese	300 ST	7439-96-5	ug/l	367	296	1,580	75.1	999	765	1,100	1,060
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	1.8 U	0.78 U	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	7,360	7,310	14,600 J	7,640 J	7,430	5,510	7,140	6600
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 UN
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	11,500	13,900	U*	14,600	26,600	14,400	19,600	17,500
Thallium	0.5 GV	7440-28-0	ug/l	2.9 U	2.2 U	NA	NA	NA	NA	NA	3.9 B
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	37.0	U*	NA	NA	NA	NA	NA	6.1 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	4,787	3,196	55,980	1,685	31,899	21,165	27,000	22,460

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 limit.

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

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

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-04I 2/23/2009 (ug/l)	MW-04I 8/12/2009 (ug/l)	MW-04I 2/4/2010 (ug/l)	MW-04I 5/26/2011 (ug/l)	MW-04I 8/27/2012 (ug/l)	MW-04I 11/13/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	12.5	24.6 B	8.2 U	38.2 B	7.13 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	12.5	2.3 U	11.4	10.2	12.4 J		
Barium	1,000 ST	7440-39-3	ug/l	NA	103 B	35.9 B	24.3 B	38.6 B	134		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	125	94.3 B	113	72.4 B	71		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.40 B	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	33,300	61,000	30,000	16,200	48,800	26,800		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	0.49 U	0.44 U	1.8 B	10.6	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.80 B	1.2 U	.55 B	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.62 U	3.1 B	1.6 B	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	25,700	53,000	1,720 J*	16,600	36,400	19,700		
Lead	25 ST	7439-92-1	ug/l	1.3 U	10.7	2.0 B	5.1	1.8 B	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	3,520 B	6,110	3,250 B	2,040 B	4530 B	2,250		
Manganese	300 ST	7439-96-5	ug/l	1,230	3,060	366	1,180	4,690	2,700		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	1.4 U	1.2 U	.64 U	20 U		
Potassium	-	7440-09-7	ug/l	8,460	9,960	8,490	4510 B	5,450	13,100		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 U	2.6 UNU*J*	3.7 B	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	.49 B	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	34,700	53,000	31,000	19,600	54,200	20,800		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	3.4 B	3.2 B	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	1.0 B	.23 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	15.2 B	16.0 B	17.6 B	47.1	15.1 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	43.5 UBJ		
Iron + Manganese	500 ST*	-	ug/l	26,930	56,060	2,086	17,780	41,090	22,400		

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

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

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 #	SITE: DATE: UNITS:	MW-04S 3/2/2007 (ug/l)	MW-04S 5/24/2007 (ug/l)	MW-04S 8/10/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	418	363	NA	NA	NA	NA	NA	2630
Antimony	3 GV	7440-36-0	ug/l	3.2 U	2.9 B	NA	NA	NA	NA	NA	2.6 B
Arsenic	25 ST	7440-38-2	ug/l	10.9	8.9 B	NA	NA	NA	NA	NA	11.0
Barium	1,000 ST	7440-39-3	ug/l	293	327	NA	NA	NA	NA	NA	306
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.58 B	NA	NA	NA	NA	NA	0.21 B
Boron	1,000 ST	7440-42-8	ug/l	233 B	242	NA	NA	NA	NA	NA	195 BN
Cadmium	5 ST	7440-43-9	ug/l	0.31 B	0.16 U	0.16 U	0.32 U	1.0 B	0.27 U	0.73 B	0.63 B
Calcium	-	7440-70-2	ug/l	100,000	102,000	98,800	98,000	93,300	91,900	94,900	95,400
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	5.1 B
Chromium Total	50 ST	7440-47-3	ug/l	2.0 B	1.6 B	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	1.0 B	NA	NA	NA	NA	NA	1.4 B
Copper	200 ST	7440-50-8	ug/l	2.7 B	0.44 U	NA	NA	NA	NA	NA	15.0 B
Iron	300 ST	7439-89-6	ug/l	46,000	51,800	45,500	51,600	43,400	46,400	46,300	53,700
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.1 U	1.1 U	1.4 UJ	1.4 U	2.3 U	3.0 B	3.1
Magnesium	35,000 GV	7439-95-4	ug/l	12,900	13,400	12,300	12,800	11,100	11,100	11,700	11,400
Manganese	300 ST	7439-96-5	ug/l	2,620	2,690	2,350	2,490	2,300	2,290	2,240	2,250
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	1.8 U	2.6 B	NA	NA	NA	NA	NA	4.9 B
Potassium	-	7440-09-7	ug/l	23,000	22,100	20,600 J	1,880 J	16,300	17,600	18,600	18,200
Selenium	10 ST	7782-49-2	ug/l	3.0 B	3.0 U	NA	NA	NA	NA	NA	2.7 BN
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	47,700	51,300	U*	42,700	42,500	43,200	41,000	39,500
Thallium	0.5 GV	7440-28-0	ug/l	4.9 B	2.6 B	NA	NA	NA	NA	NA	3.9 B
Vanadium	-	7440-62-2	ug/l	1.4 U	3.0 B	NA	NA	NA	NA	NA	10.5 B
Zinc	2,000 ST	7440-66-6	ug/l	U*	U*	NA	NA	NA	NA	NA	15.7 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	48,620	54,490	47,850	54,090	45,700	48,690	48,540	55,950

NOTES:

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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-04S 2/23/2009 (ug/l)	MW-04S 8/12/2009 (ug/l)	MW-04S 2/4/2010 (ug/l)	MW-04S 5/31/2011 (ug/l)	MW-04S 8/27/2012 (ug/l)	MW-04S 11/13/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	42.3 B	1540	28.0 B	73.9 B	17.5 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.4 B	2.1 U	1.1 U	7.92 J		
Arsenic	25 ST	7440-38-2	ug/l	NA	6.5 B	7.5 B	2.7 B	8.1 B	10.2 J		
Barium	1,000 ST	7440-39-3	ug/l	NA	284	304	298	379	282		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.32 B	0.19 B	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	154	179	181	213	158		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.50 B	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	96,400	93,800	92,200	90,100	129,000	84,500		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.02 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	2.3 B	3.7 B	1.7 B	13.3	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.90 B	1.4 B	1.1 B	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.62 U	0.83 U	0.55 U	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	49,800	45,300	48,800 J*	39,000	60,200	37,200		
Lead	25 ST	7439-92-1	ug/l	1.3 U	17.7	5.0	11.3	9.6	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	11,000	9,290	10,700	10,700	12,400	8,300		
Manganese	300 ST	7439-96-5	ug/l	2,350	2,270	2,580	2,250	3,240	2,520		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.19 BNU*	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	3.7 B	2.2 B	.64 U	5.04 J		
Potassium	-	7440-09-7	ug/l	16,600	15,500	16,200	18,400	20,600	15,200		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 U	2.6 UNU*J*	2.8 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.75 BN	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	38,700	32,400	35,900	39,300	51,000	11,500		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3.2 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	8.3 B	2.9 B	1.5 B	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	13.5 B	17.6 B	13.5	10.2 B	17 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	45.4 UBJ		
Iron + Manganese	500 ST*	-	ug/l	52,150	47,570	51,380	41,250	63,440	39,720		

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.

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

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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-05D 2/21/2007 (ug/l)	MW-05D 5/25/2007 (ug/l)	MW-05D 8/14/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	50.9 B	110 B	NA	NA	NA	NA	NA	43.2 B
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	3.4 B	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	10.3 B	74.6 B	NA	NA	NA	NA	NA	48.4 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.55 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	67.2 B	69.9 B	NA	NA	NA	NA	NA	46.1 B
Cadmium	5 ST	7440-43-9	ug/l	0.45 B	1.0 B	0.91 B	0.99 B	0.88 B	0.52 B	0.62 B	0.43 B
Calcium	-	7440-70-2	ug/l	42,100	41,900	36,000	24,700	41,500	32,000	32,500	28,600
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.96 B
Chromium Total	50 ST	7440-47-3	ug/l	1.1 B	0.94 B	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	3.2 B	NA	NA	NA	NA	NA	2.2 B
Copper	200 ST	7440-50-8	ug/l	3.2 B	0.44 U	NA	NA	NA	NA	NA	2.7 B
Iron	300 ST	7439-89-6	ug/l	150	32.4 B	21.7 B	315	85.0 B	926	12.5 B	48.6 B
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.1 U	1.1 U	1.4 UJ	2.2 B	8.0	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	10,100	10,500	9,410	6,890	12,800	10,500	10,500	8,930
Manganese	300 ST	7439-96-5	ug/l	1,400	15,500	13,500	9,980	13,800	3,290	10,200	7,760
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	1.9 B	9.9 B	NA	NA	NA	NA	NA	6.5 B
Potassium	-	7440-09-7	ug/l	9,790	7,600	6,880	5,710 J	5,920	5,840	6,170	5,100
Selenium	10 ST	7782-49-2	ug/l	2.9 B	3.0 U	NA	NA	NA	NA	NA	1.9 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	1.3 B
Sodium	20,000 ST	7440-23-5	ug/l	42,300	44,300	U*	33,600	41,000	37,700	41,100	35,300
Thallium	0.5 GV	7440-28-0	ug/l	2.9 U	2.2 U	NA	NA	NA	NA	NA	1.9 U
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	30.6	U*	NA	NA	NA	NA	NA	4.3 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	1,550	15,532.4	13,521.7	10,295	13,885	4,216	10,213	7,809

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

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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-05D 2/26/2009 (ug/l)	MW-05D 8/17/2009 (ug/l)	MW-05D 2/8/2010 (ug/l)	MW-05D 6/1/2011 (ug/l)	MW-05D 8/28/2012 (ug/l)	MW-05D 11/13/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	108 B	1700	196 B	36.3 D	20 U		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	42.9 B	25.4 B	27.0 B	9.3 B	27.7		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.17 B	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	36.6 B	42.0 B	31.4 B	29.1 B	24		
Cadmium	5 ST	7440-43-9	ug/l	0.72 B	0.70 B	4.8 B	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	28,200	27,500	17,500	14,900	4290 B	6,230		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	0.90 B	4.3 B	2.2 B	8.4	20 U		
Cobalt	-	7440-48-4	ug/l	NA	2.1 B	1.4 B	1..2 B	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	1.4 B	7.4 B	1.8 B	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	10.2 B	21.2 B	2,650	295	31.9 B	12.7 UB		
Lead	25 ST	7439-92-1	ug/l	1.5 B	20.6	21.1	5.6	9	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	7,600	7,760	7,960	7,380	1560 B	2,420		
Manganese	300 ST	7439-96-5	ug/l	7,740	6,820	1,870	1,560	25	352		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UNU*J*	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	7.9 B	6.1 B	19.0 B	5.6	20 U		
Potassium	-	7440-09-7	ug/l	4,600 B	3,940 B	3,050 J*	2850 B	1400 B	1,620		
Selenium	10 ST	7782-49-2	ug/l	NA	4.6 U	2.5 U	2.6 UNU*J*	4.7 B	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.81 B	0.83 U	0.52 UN	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	29,200	26,800	22,300	23,500	18,500	5,450		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3..2 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	4.2 B	.68 B	.23 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	8.0 B	206	40.6	12 B	11.8 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	43.4 UBJ		
Iron + Manganese	500 ST*	-	ug/l	7,750.2	6,830.2	4,520	1,855	25	352		

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

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

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-05I 2/21/2007 (ug/l)	MW-05I 5/25/2007 (ug/l)	MW-05I 8/14/2007 (ug/l)	MW-05I 11/13/2007 (ug/l)	MW-05I 2/11/2008 (ug/l)	MW-05I 5/15/2008 (ug/l)	MW-05I 8/5/2008 (ug/l)	MW-05I 11/5/2008 (ug/l)
Aluminum	-	7429-90-5	ug/l	27.5 B	230	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	2.4 B	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	4.6 B	8.4 B	NA	NA	NA	NA	NA	4.3 B
Barium	1,000 ST	7440-39-3	ug/l	41.2 B	52.2 B	NA	NA	NA	NA	NA	20.4 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.52 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	95.3 B	94.9 B	NA	NA	NA	NA	NA	84.5 B
Cadmium	5 ST	7440-43-9	ug/l	0.32 B	0.16 U	0.16 U	0.38 B	0.35 B	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	44,000	41,600	39,100	41,100	30,000	34,300	28,600	16,300
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.57 B
Chromium Total	50 ST	7440-47-3	ug/l	1.3 B	0.33 U	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	0.70 B	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	20.2	0.44 U	NA	NA	NA	NA	NA	1.2 B
Iron	300 ST	7439-89-6	ug/l	11,000	14,800	16,700	1,750	8,920	10,700	8,490	5,020
Lead	25 ST	7439-92-1	ug/l	2.4 B	1.1 U	1.1 U	1.4 UJ	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	6,620	6,280	5,700	6,340	4,350 B	5,350	4,580 B	2,480 B
Manganese	300 ST	7439-96-5	ug/l	1,300	1,720	3,170	398	2,290	2,880	2,410	1,580
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.28
Nickel	100 ST	7440-02-0	ug/l	1.8 U	0.78 U	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	14,500	14,600	13,200	12,400 J	13,300	12,100	13,800	9250
Selenium	10 ST	7782-49-2	ug/l	2.3 B	3.0 U	NA	NA	NA	NA	NA	1.9 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	29,300	33,900	U*	33,700	30,000	26,300	28,100	21,600
Thallium	0.5 GV	7440-28-0	ug/l	4.5 B	2.2 U	NA	NA	NA	NA	NA	1.9 U
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	35.4	U*	NA	NA	NA	NA	NA	5.0 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	12,300	16,520	19,870	2,148	11,210	13,580	10,900	6,600

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

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

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-05I 2/26/2009 (ug/l)	MW-05I 8/17/2009 (ug/l)	MW-05I 2/8/2010 (ug/l)	MW-05I 5/31/2011 (ug/l)	MW-05I 8/28/2012 (ug/l)	MW-05I 11/13/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	105 B	2680	36.4 B	42.9 B	7.67 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.1 U	6.59 J		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.2 B	3.5 B	1.9 U	4.8 B	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	21.9 B	46.8 B	34.1 B	20.6 B	107		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	52.7 B	69.6 B	54.4 B	43.9 B	51		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.50 B	3.0 B	0.27 U	.6 B	10 U		
Calcium	-	7440-70-2	ug/l	22,300	22,800	19,300	20,500	15,600	32,800		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	0.60 B	5.0 B	1.5 B	7.9	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.76 U	1.3 B	.49 U	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.80 B	7.7 B	0.55 U	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	7,920	8,890	9,230	12,600	4,330	6,110		
Lead	25 ST	7439-92-1	ug/l	1.3 U	6.9	14.8	4.9	1.9 B	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	3,360 B	3,660	3450 B	3,830 B	1840 B	3,510		
Manganese	300 ST	7439-96-5	ug/l	2,520	3,150	1,840	5,070	1,730	2,450		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.16 BNU*	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	3.1 B	1.7 B	1.1 B	20 U		
Potassium	-	7440-09-7	ug/l	7,510	7,650	9,130 J*	10,600	9,200	26,200		
Selenium	10 ST	7782-49-2	ug/l	NA	4.6 U	2.5 U	2.6 UNU*J*	2.8 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.44 B	0.83 U	0.52 UN	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	21,400	17,000	16,700	19,300	10,400	14,100		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3.2 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	5.7 B	.98 B	.23 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	9.5 B	386	7.1 B	13 B	11.1 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	40.3 UBJ		
Iron + Manganese	500 ST*	-	ug/l	10,440	12,040	11,070	17,670	6,060	8,560		

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

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

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 #	SITE: DATE: UNITS:	MW-05S 2/21/2007 (ug/l)	MW-05S 6/1/2007 (ug/l)	MW-05S 8/14/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	554	10.4 U	NA	NA	NA	NA	NA	85.0 B
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	5.4 B	7.7 B	NA	NA	NA	NA	NA	3.4 B
Barium	1,000 ST	7440-39-3	ug/l	347	345	NA	NA	NA	NA	NA	300
Beryllium	3 GV	7440-41-7	ug/l	0.33 B	0.087 U	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	286 B	301 B	NA	NA	NA	NA	NA	223 B
Cadmium	5 ST	7440-43-9	ug/l	2.1 B	1.2 B	0.16 U	0.32 U	1.2 B	0.27 U	0.78 B	0.35 U
Calcium	-	7440-70-2	ug/l	109,000	109,000	11,600	96,400	97,500	83,500	97,300	91500
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	1.8 B
Chromium Total	50 ST	7440-47-3	ug/l	1.3 B	0.43 B	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	6.9 B	3.3 B	NA	NA	NA	NA	NA	3.4 B
Copper	200 ST	7440-50-8	ug/l	4.0 B	2.2 B	NA	NA	NA	NA	NA	4.5 B
Iron	300 ST	7439-89-6	ug/l	47,500	46,800	48,500	55,300	42,500	38,400	42,100	40,000
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.1 U	1.1 U	1.4 UJ	1.4 U	2.3 U	2.3 B	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	14,600	14,100	14,900	12,500	12,300	10,900	12,800	11,700
Manganese	300 ST	7439-96-5	ug/l	4,500	4,710	4,560	42,400	4,850	4,100	4,480	4,550
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	4.2 B	4.8 B	NA	NA	NA	NA	NA	5.9 B
Potassium	-	7440-09-7	ug/l	20,900	17,800	18,400	15,300 J	14,300	13,400	15,400	14900
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.65 B
Sodium	20,000 ST	7440-23-5	ug/l	42,000	37,000	U*	31,800	32,900	28,400	30,600	28,500
Thallium	0.5 GV	7440-28-0	ug/l	5.3 B	6.6 B	NA	NA	NA	NA	NA	4.4 B
Vanadium	-	7440-62-2	ug/l	2.7 B	2.4 B	NA	NA	NA	NA	NA	3.4 B
Zinc	2,000 ST	7440-66-6	ug/l	20.7	9.6 B	NA	NA	NA	NA	NA	1.5 U
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	52,000	51,510	53,060	97,700	47,350	42,500	46,580	44,550

NOTES:

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Concentration exceeds Standard/Guidance Value.

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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-05S 2/26/2009 (ug/l)	MW-05S 8/17/2009 (ug/l)	MW-05S 2/8/2010 (ug/l)	MW-05S 5/31/2011 (ug/l)	MW-05S 8/29/2012 (ug/l)	MW-05S 11/13/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	214	541	39.8 B	1050	19 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 B	1.8 B	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	4.3 B	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	322	199 B	283	272	268		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.55 B	0.26 B	.3 B	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	279	146	197	163 B	144		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.90 B	0.34 U	0.27 U	.9 B	10 U		
Calcium	-	7440-70-2	ug/l	89,400	103,000	62,600	79,500	78,600	69,500		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	1.3 B	2.6 B	2.1 B	11.5	20 U		
Cobalt	-	7440-48-4	ug/l	NA	1.4 B	5.5 B	1.0 B	1.5 B	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.62 U	0.83 U	0.55 U	11.1 B	20 U		
Iron	300 ST	7439-89-6	ug/l	36,900	41,000	20,500	29,200	35,900	24,800		
Lead	25 ST	7439-92-1	ug/l	1.3 U	18.5	4.5	9.5	11.7	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	11,400	13,000	8,300	10,600	8,880	8,360		
Manganese	300 ST	7439-96-5	ug/l	4,420	4,710	2,520	4,280	5,260	4,770		
Mercury	0:7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UN	0.1 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	4.4 B	4.6 B	5.6 B	20 U		
Potassium	-	7440-09-7	ug/l	12,900	13,800	10,800 J*	15,400	12,900	12,900		
Selenium	10 ST	7782-49-2	ug/l	NA	4.6 U	2.5 U	2.6 UNU*J*	2.1 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UN	.29 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	25,900	27,800	2,400	30,600	27,900	10,400		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	2.9 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	3.8 B	2.7 B	8.6 B	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	14.3 B	22.7	13..9 B	82.5	13.3 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	47.2 UBJ		
Iron + Manganese	500 ST*	-	ug/l	41,320	45,710	23,020	29,210	35,912	29,570		

NOTES:

J: Estimated due to data validation criteria.

Concentration exceeds Standard/Guidance Value.

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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-06D 2/22/2007 (ug/l)	MW-06D 5/24/2007 (ug/l)	MW-06D 8/10/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	22.0 B	82.3 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	2.7 B	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	2.0 U	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	6.4 U	2.2 B	NA	NA	NA	NA	NA	40.5 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.52 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	150 B	147	NA	NA	NA	NA	NA	151 BN
Cadmium	5 ST	7440-43-9	ug/l	0.28 U	0.16 U	0.25 B	0.32 U	0.33 B	0.27 U	0.39 B	0.35U
Calcium	-	7440-70-2	ug/l	5,260	5,150	4,700 B	5,670	7,010	6,330	8,040	7920
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	2.3B
Chromium Total	50 ST	7440-47-3	ug/l	0.50 U	0.53 B	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	0.40 U	NA	NA	NA	NA	NA	9.5 B
Copper	200 ST	7440-50-8	ug/l	2.8 B	0.44 U	NA	NA	NA	NA	NA	2.7 B
Iron	300 ST	7439-89-6	ug/l	554	643	2,970	1,010	4,600	2,210	5,190	5,920
Lead	25 ST	7439-92-1	ug/l	2.0 B	1.1 U	1.1 U	6.5 J	1.4 U	2.7 B	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	2,490 B	2,410 B	2,210 B	2,340 B	3,410 B	3,070 B	4,540 B	4,270 B
Manganese	300 ST	7439-96-5	ug/l	2,610	443	7,200	1,300	9,690	6,440	10,100	9,930
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	2.8 B	0.78 U	NA	NA	NA	NA	NA	6.8 B
Potassium	-	7440-09-7	ug/l	1,600 B	1,400 B	1,280 JB	1,580 J	1,290 B	1,400 B	1,910 B	1,780 B
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 UN
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.99 B	NA	NA	NA	NA	NA	1.7 B
Sodium	20,000 ST	7440-23-5	ug/l	10,400	10,400	U*	9,930	10,500	11,300	15,200	17,300
Thallium	0.5 GV	7440-28-0	ug/l	2.9 U	2.2 U	NA	NA	NA	NA	NA	2.4 B
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	U*	U*	NA	NA	NA	NA	NA	1.5 U
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	3,164	1,086	10,170	2,310	14,290	8,650	15,290	15,850

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 limit.

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

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

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 #	SITE: DATE: UNITS:	MW-06D 2/23/2009 (ug/l)	MW-06D 8/11/2009 (ug/l)	MW-06D 2/4/2010 (ug/l)	MW-06D 5/26/2011 (ug/l)	MW-06D 8/27/2012 (ug/l)	MW-06D 11/12/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	38.6 B	26.4 B	8.2 U	36.7 B	20 U		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3 U	2.3 U	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	49.5	3.5 B	31.6 B	1.3 U	54.1		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	186	157	105	120	54		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.30 B	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	8,540	8,130	7,860	5,960	7,260	6,130		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	.02 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	0.60 B	0.72 B	1.8 B	7	20 U		
Cobalt	-	7440-48-4	ug/l	NA	11.1 B	1.2 U	10.7 B	2 B	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.62 U	2.2 B	1.6 B	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	6,670	6,080	232 J*	159	1,060	122		
Lead	25 ST	7439-92-1	ug/l	1.3 U	14.9	1.8 U	1.6 B	8.6	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	4,580 B	4,250 B	4,430 B	3,580 B	3610 B	3,370		
Manganese	300 ST	7439-96-5	ug/l	11,100	9,010	581	3,370	761	3,190		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	.1 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	7.2 B	1.4 U	4.8 B	1.9 B	8.11 J		
Potassium	-	7440-09-7	ug/l	1,800 B	2,030 B	1,910 B	2,000 B	1560 B	2,060		
Selenium	10 ST	7782-49-2	ug/l	NA	5.5	2.5 U	2.6 UNU*J*	2.1 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.34 B	0.83 U	0.52 UU*J*	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	16,100	18,100	15,600	18,500	17,800	3,260		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3.2 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	.56 U	.23 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	10.8 B	9.6 B	7.4 B	103	15.8 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	42.1 UB		
Iron + Manganese	500 ST*	-	ug/l	17,770	15,090	813	3,529	1,821	3,312		

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

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

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 #	SITE: DATE: UNITS:	MW-06I 2/22/2007 (ug/l)	MW-06I 5/24/2007 (ug/l)	MW-06I 8/10/2007 (ug/l)	MW-06I 11/9/2007 (ug/l)	MW-06I 2/11/2008 (ug/l)	MW-06I 5/15/2008 (ug/l)	MW-06I 8/4/2008 (ug/l)	MW-06I 11/3/2008 (ug/l)
Aluminum	-	7429-90-5	ug/l	33.2 B	72.8 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	2.0 U	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	81.5 B	76.0 B	NA	NA	NA	NA	NA	34.1 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.51 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	302 B	277	NA	NA	NA	NA	NA	91.8 BN
Cadmium	5 ST	7440-43-9	ug/l	0.28 U	0.16 U	0.16 U	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	27,500	24,800	21,300	22,800	20,600	17,600	20,800	18,300
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.41 U
Chromium Total	50 ST	7440-47-3	ug/l	0.50 U	0.33 U	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	0.40 U	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	5.8 B	0.44 U	NA	NA	NA	NA	NA	10.9 B
Iron	300 ST	7439-89-6	ug/l	732	971	827	660	406	1,530	124	146
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.1 U	1.1 U	1.8 JB	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	2,030 B	1,830 B	1,730 B	1,940 B	1,870 B	1,680 B	2,120 B	1,850 B
Manganese	300 ST	7439-96-5	ug/l	147	114	247	190	224	172	198	198
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.16 U
Nickel	100 ST	7440-02-0	ug/l	1.8 U	0.78 U	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	11,300	9,190	6,670 J	7,120 J	4,010 B	3,400 B	4,120 B	4,470 B
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 UN
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	14,000	13,600	U*	18,000	16,900	13,600	14,500	17,000
Thallium	0.5 GV	7440-28-0	ug/l	3.3 B	2.2 U	NA	NA	NA	NA	NA	5.9 B
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	U*	U*	NA	NA	NA	NA	NA	8.0 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	879	1,085	1,074	850	630	1,702	322	344

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

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

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-06I 2/23/2009 (ug/l)	MW-06I 8/11/2009 (ug/l)	MW-06I 2/4/2010 (ug/l)	MW-06I 5/26/2011 (ug/l)	MW-06I 8/27/2012 (ug/l)	MW-06I 11/12/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	22.5 B	29.5 B	8.2 U	97.4 B	5.36 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.3 B	2.1 U	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	39.1 B	40.2 B	53.0 B	46.8 B	58.3		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	99.2 B	74.6 B	32.3 B	56.1 B	58		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.26 U	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	16,000	17,100	14,600	23,900	19,700	13,500		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	1.2 B	0.67 B	1.0 B	8.5	20 U		
Cobalt	-	7440-48-4	ug/l	NA	1.2 B	1.2 B	.49 U	2.8 B	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	11.8 B	14.2 B	1.9 B	22.7 B	20 U		
Iron	300 ST	7439-89-6	ug/l	20.0 B	1,960	875 J*	90.1 B	3,940	7.46 UB		
Lead	25 ST	7439-92-1	ug/l	1.3 U	7.0	1.8 U	1.5 U	6	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	1,610 B	1,580 B	1,560 B	4,030 B	1900 B	1,450		
Manganese	300 ST	7439-96-5	ug/l	180	202	182	530	643	556		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	1.4 U	1.2 U	2.8 B	20 U		
Potassium	-	7440-09-7	ug/l	3,760 B	4,020 B	3,520 B	3,610 B	4920 B	8,220		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	3.1 B	2.6 UNU*J*	2.8 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	13,800	14,800	12,700	29,700	19,200	4,110		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	3.7 B	3.2 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	.56 U	.4 B	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	19.7 B	22.8	13.3 B	95.4	10.7 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	46.3 UB		
Iron + Manganese	500 ST*	-	ug/l	200	222	1,057	620.1	4,583.0	563.46		

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

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

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 #	SITE: DATE: UNITS:	MW-06S 2/22/2007 (ug/l)	MW-06S 5/24/2007 (ug/l)	MW-06S 8/10/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	218	747	NA	NA	NA	NA	NA	157 B
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	6.1 B	4.6 B	NA	NA	NA	NA	NA	6.8 B
Barium	1,000 ST	7440-39-3	ug/l	189 B	231	NA	NA	NA	NA	NA	320
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.70 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	281 B	304	NA	NA	NA	NA	NA	273 BN
Cadmium	5 ST	7440-43-9	ug/l	0.91 B	0.16 U	0.16 U	0.32 U	1.4 B	0.27 U	0.67 B	1.0 B
Calcium	-	7440-70-2	ug/l	66,800	78,000	49,200	78,900	91,000	77,600	64,000	97,600
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	1.9 B
Chromium Total	50 ST	7440-47-3	ug/l	1.8 B	4.9 B	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	1.2 B	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	5.3 B	0.44 U	NA	NA	NA	NA	NA	7.4 B
Iron	300 ST	7439-89-6	ug/l	34,800	49,600	28,000	51,100	53,000	51,200	42,700	65,100
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.1 U	1.1 U	1.4 UJ	1.4 U	2.3 U	2.3	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	8,800	10,100	5,770	10,200	10,500	8,810	6 ,950	10,700
Manganese	300 ST	7439-96-5	ug/l	586	678	480	609	1,140	716	790	668
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	1.8 U	3.0 B	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	13,100	12,100	8,180	11,200 J	10,100	10,500	8,880	12,200
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 UN
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.74 B	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	18,000	21,500	U*	20,000	24,000	27,600	24,600	31,600
Thallium	0.5 GV	7440-28-0	ug/l	4.9 B	2.2 U	NA	NA	NA	NA	NA	7.2 B
Vanadium	-	7440-62-2	ug/l	3.5 B	6.7 B	NA	NA	NA	NA	NA	3.5 B
Zinc	2,000 ST	7440-66-6	ug/l	U*	U*	NA	NA	NA	NA	NA	8.0 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	35,386	50,278	28,480	51,709	54,140	51,916	43,490	65,768

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

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

N: Matrix spike sampe recovery not within control limits.

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 #	SITE: DATE: UNITS:	MW-06S 2/23/2009 (ug/l)	MW-06S 8/11/2009 (ug/l)	MW-06S 2/4/2010 (ug/l)	MW-06S 5/26/2011 (ug/l)	MW-06S 8/27/2012 (ug/l)	MW-06S 11/13/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	165 B	40.5 B	8.2 U	32.4 B	11.6 J		
Antimony	3 GV	7440-36-0	ug/l	NA	3.7 B	2.1 U	2.1 U	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	35.0 J*	6.3 B	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	261	246	372	418	220		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	184	162	244	245	161		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	1.1 B	0.34 U	0.38 B	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	79,700	68,500	58,500	74,800	115,000	64,000		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	2.3 B	2.3 B	3.0 B	15.5	20 U		
Cobalt	-	7440-48-4	ug/l	NA	1.7 B	1.2 U	0.62 B	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.62 U	0.83 U	0.55 U	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	51,600	93,800 J*	50,600 J*	36,400	82,300	46,400		
Lead	25 ST	7439-92-1	ug/l	1.3 U	13.8	2.5 B	8.7	9.3	5.63 J		
Magnesium	35,000 GV	7439-95-4	ug/l	8,570	6,440	5,920	9,920	9,710	5,020		
Manganese	300 ST	7439-96-5	ug/l	461	491	538	494	664	500		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82U	2.5 B	1.2 U	.64 U	5.5 J		
Potassium	-	7440-09-7	ug/l	9,410	8,210	9650	11,900	14,200	8,360		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 U	2.6 UNU*J*	2.8 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	23,800	18,700	16,300	21,700	39,000	7,990		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	3.6 B	15 U		
Vanadium	-	7440-62-2	ug/l	NA	5.9 B	4.6 B	2.7 B	2.1 B	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	23.0	11.8 B	17.7 B	11.3 B	17 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	39.7 UBJ		
Iron + Manganese	500 ST*	-	ug/l	52,061	94,291	51,138	73,294	165,264	46,900		

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

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

N: Matrix spike sampe recovery not within control limits.

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 #	SITE: DATE: UNITS:	MW-07I 2/22/2007 (ug/l)	MW-07I 5/24/2007 (ug/l)	MW-07I 8/10/2007 (ug/l)	MW-07I 11/9/2007 (ug/l)	MW-07I 2/11/2008 (ug/l)	MW-07I 5/19/2008 (ug/l)	MW-07I 8/5/2008 (ug/l)	MW-07I 11/5/2008 (ug/l)
Aluminum	-	7429-90-5	ug/l	15.6 B	72.2 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	2.0 U	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	31.3 B	53.0 B	NA	NA	NA	NA	NA	33.5 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.54 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	39.1 B	41.0 B	NA	NA	NA	NA	NA	33.7 B
Cadmium	5 ST	7440-43-9	ug/l	0.28 U	0.16 U	0.28 B	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	19,000	18,100	18,600	73,600 J	18,700	20,900	21,600	28,400
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.52 B
Chromium Total	50 ST	7440-47-3	ug/l	0.92 B	0.33 U	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	0.40 U	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	5.1 B	0.44 U	NA	NA	NA	NA	NA	1.0 B
Iron	300 ST	7439-89-6	ug/l	81.0 B	74.6 B	47.7 B	24,600	24.2 U	13.2 B	30.8 B	7.6 B
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.1 U	1.1 U	1.4 U	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	2,140 B	2,120 B	2,500 B	11,200 J	2,350 B	2,230 B	2,070 B	1,730 B
Manganese	300 ST	7439-96-5	ug/l	142	310	486	5,920 J	663	434	428	282
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	1.8 U	0.78 U	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	4,330 B	4,920 B	4,530 JB	12,500	3,770 B	2,930 B	3,330 B	3,460 B
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.90 B	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	20,600	31,300	U*	29,100 J	23,300	23,400	22,500	26,700
Thallium	0.5 GV	7440-28-0	ug/l	3.0 B	3.1 B	NA	NA	NA	NA	NA	1.9 U
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	U*	U*	NA	NA	NA	NA	NA	7.8 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	223.0	384.6	533.7	30,520	687	447.2	458.8	289.6

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 limit.

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

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

N: Matrix spike sampe recovery not within control limits.

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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-07I 2/24/2009 (ug/l)	MW-07I 8/14/2009 (ug/l)	MW-07I 2/8/2010 (ug/l)	MW-07I 5/26/2011 (ug/l)	MW-07I 8/27/2012 (ug/l)	MW-07I 11/12/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	40.6 B	28.8 B	8.2 U	46.7 B	5.13 J		
Antimony	3 GV	7440-36-0	ug/l	NA	36.3 B	2.1 U	2.1 U	1.1 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	4.4 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	75.0 B	57.5 B	46.3 B	23.7 B	37.5		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	51.9 B	23.2 B	51.0 B	45.7 B	37		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.40 B	0.34 U	0.27 U	.18 U	10 U		
Calcium	-	7440-70-2	ug/l	19,800	24,800	14,000	38,000	21,900	12,700		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	5.3 B	0.58 B	1.6 B	8.0 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.76 U	1.2 U	.49 U	.52 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.62 U	2.4 B	1.9 B	.7 U	20 U		
Iron	300 ST	7439-89-6	ug/l	9.4 B	26.6 B	62.6 B	31.8 B	20.1 B	13.5 UB		
Lead	25 ST	7439-92-1	ug/l	1.3 U	2.1 U	2.1 B	1.5 U	3.6	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	1,050 B	1,760 B	1,550 B	6,020	1980 B	1,650		
Manganese	300 ST	7439-96-5	ug/l	212	347	414	971	506	1,600		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	0.1	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	3.0 B	1.4 U	1.2 U*J*	.8 B	20 U		
Potassium	-	7440-09-7	ug/l	6,790	8,840	5630 J*	3440 B	2850 B	1,790		
Selenium	10 ST	7782-49-2	ug/l	NA	95.7	2.5 U	2.6 UNU*J*	2.8 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	.32 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	20,900	35,000	23,200	22,900	442	5,870		
Thallium	0.5 GV	7440-28-0	ug/l	NA	20.0	3.2 U	2.7 U	3.2 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	.56 U	.23 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	7.6 B	14.9 B	8.1 B	57.7	10.8 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	44.3 UB		
Iron + Manganese	500 ST*	-	ug/l	221.4	356.4	476.6	971	506	1,613.50		

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.

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

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

N: Matrix spike sampe recovery not within control limits.

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-11D 2/28/2007 (ug/l)	MW-11D 6/1/2007 (ug/l)	MW-11D 8/17/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	1,090	2,130	NA	NA	NA	NA	NA	659
Antimony	3 GV	7440-36-0	ug/l	3.2 U	2.4 B	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 U	3.8 B	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	45.8 B	55.6 B	NA	NA	NA	NA	NA	36.5 B
Beryllium	3 GV	7440-41-7	ug/l	0.20 B	1.0 B	NA	NA	NA	NA	NA	0.21 B
Boron	1,000 ST	7440-42-8	ug/l	37.9 B	45.4 B	NA	NA	NA	NA	NA	64.9 B
Cadmium	5 ST	7440-43-9	ug/l	0.32 B	0.95 B	0.51 B	0.41 B	0.45 B	0.27 U	0.50 B	0.35 U
Calcium	-	7440-70-2	ug/l	13,500	18,500	13,500	11,300 J	9,390	7,730	7,600	7,350
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	1.6 B
Chromium Total	50 ST	7440-47-3	ug/l	1.5 B	3.8 B	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	1.2 B	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	1.6 B	3.7 B	NA	NA	NA	NA	NA	0.98 B
Iron	300 ST	7439-89-6	ug/l	128	1,640	56.0 B	956	264	116	107	27.7 B
Lead	25 ST	7439-92-1	ug/l	1.5 U	8.6	1.7 U	4.3	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	3,490 B	3,940 B	3,830 B	3,390 JB	2,740 B	2,510 B	2,730 B	2,530 B
Manganese	300 ST	7439-96-5	ug/l	662	820	483	462 J	328	240	240	242
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST.	7440-02-0	ug/l	21.2 B	27.1 B	NA	NA	NA	NA	NA	16.4 B
Potassium	-	7440-09-7	ug/l	4,260 B	3,850 B	2,860 B	3,450	2,550 B	2,260 B	2,600 B	2,260 B
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	14,600	14,900	U*	17,400 J	17,800	17,700	17,800	18,300
Thallium	0.5 GV	7440-28-0	ug/l	2.9 U	2.5 B	NA	NA	NA	NA	NA	1.9 U
Vanadium	-	7440-62-2	ug/l	1.4 U	5.1 B	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	U*	37.3	NA	NA	NA	NA	NA	11.2 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	790	2,460	539.0	1,418	592	356	347	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 limit.

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

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

N: Matrix spike sampe recovery not within control limits.

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 #	SITE: DATE: UNITS:	MW-11D 2/25/2009 (ug/l)	MW-11D 8/13/2009 (ug/l)	MW-11D 2/5/2010 (ug/l)	MW-11D 5/27/2011 (ug/l)	MW-11D 8/29/2012 (ug/l)	MW-11D 11/14/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	494	16700	29,600	330	692		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	3.1 B	2.8 B	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	10.5	18.3	1.8 B	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	20.0 B	120 B	261	48.0 B	77.6		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.20 B	0.72 B	1.0 B	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	57.8 B	42.6 B	30.0 B	.41 B	48		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.26 U	0.82 B	1.8 B	0.3 B	10 U		
Calcium	-	7440-70-2	ug/l	6,450	8,020	43,500	75,500	27,800	11,400		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	1.5 B	38.5	73.1	1.0 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.76 U	9.9 B	18.5 B	0.4 B	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.80 B	42.8	124	2.5 B	20 U		
Iron	300 ST	7439-89-6	ug/l	42.0 B	128	19000 J*	37,000	765	424		
Lead	25 ST	7439-92-1	ug/l	1.3 U	21.1	65.6	174	20.6	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	2,130 B	1,900	6950	17,000	5,800	3,660		
Manganese	300 ST	7439-96-5	ug/l	180	118	375	1,020	150	147		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.22 J*	0.1 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	9.2 B	23.3 B	57.7	15.2 B	17.9 J		
Potassium	-	7440-09-7	ug/l	2,090 B	2,440 B	14,900	13,700	7,370	3,780		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	3.0 B	2.6 UNU*J*	2.1 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	0.29 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	16,700	35,000	39,400	15,900	40,000	6,830		
Thallium	0.5 GV	7440-28-0	ug/l	NA	20.0	3.2 U	5.1 B	2.9 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	39.8 B	74.7	3.0 B	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	7.6 B	209	535	34.1	30.8 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	43.4 UB		
Iron + Manganese	500 ST*	-	ug/l	222	160	19,375	38,020	915	571		

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.

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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-11I 2/28/2007 (ug/l)	MW-11I 6/1/2007 (ug/l)	MW-11I 8/16/2007 (ug/l)	MW-11I 11/14/2007 (ug/l)	MW-11I 2/12/2008 (ug/l)	MW-11I 5/14/2008 (ug/l)	MW-11I 8/6/2008 (ug/l)	MW-11I 11/5/2008 (ug/l)
Aluminum	-	7429-90-5	ug/l	35.3 B	50.8 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	2.9 B	2.0 U	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	6.4 U	5.8 B	NA	NA	NA	NA	NA	7.6 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.32 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	55.8 B	53.7 B	NA	NA	NA	NA	NA	28.2 B
Cadmium	5 ST	7440-43-9	ug/l	0.75 B	0.16 U	0.99 B	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	3,660 B	5,350	5,370	5,980 J	5,370	9,040	5,030	5,030
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.80 B
Chromium Total	50 ST	7440-47-3	ug/l	0.57 B	0.33 U	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	0.40 U	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	1.5 B	0.44 U	NA	NA	NA	NA	NA	0.65 U
Iron	300 ST	7439-89-6	ug/l	69.0 B	18.8 B	18.2 B	25.1	24.2 U	280	6.6 U	10 B
Lead	25 ST	7439-92-1	ug/l	1.5 U	1.5 B	2.7 B	1.4	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	752 B	1,050 B	1,090 B	1,420 J	1,260 B	2,440 B	1,450 B	1,700 B
Manganese	300 ST	7439-96-5	ug/l	138	973	286	100 J	47.0	92.2	28.3	11.8 B
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	1.9 U
Nickel	100 ST	7440-02-0	ug/l	1.8 U	0.78 U	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	1,470 B	1,420 B	1,400 B	1,410	1,410 B	1,970 B	1,890 B	1,600 B
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	0.54 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	1.9 U
Sodium	20,000 ST	7440-23-5	ug/l	8,330	6,180	U*	5,510 J	5,430	7,860	6,770	5,500
Thallium	0.5 GV	7440-28-0	ug/l	3.9 B	3.5 B	NA	NA	NA	NA	NA	0.74 U
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	6.0 B
Zinc	2,000 ST	7440-66-6	ug/l	U*	9.3 B	NA	NA	NA	NA	NA	0.13 U
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	207	991.8	304.2	125.1	71.2	372.2	34.9	21.8

NOTES:

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Concentration exceeds Standard/Guidance Value.

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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-11I 2/25/2009 (ug/l)	MW-11I 8/13/2009 (ug/l)	MW-11I 2/5/2010 (ug/l)	MW-11I 5/27/2011 (ug/l)	MW-11I 8/29/2012 (ug/l)	MW-11I 11/14/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	70.4 B	86.2 B	8.2 U	30.0 B	20 U		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.8 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	1.5 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	2.9 U	6.2 B	1.9 B	42 B	13.4 J		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	0.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	4.3 U	22.7 B	10.9 B	19.5 B	13		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.26 U	0.39 B	0.27 U	0.10 B	10 U		
Calcium	-	7440-70-2	ug/l	4,340 B	49.0 B	3,260 B	968 B	7,740	2,480		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	0.49 U	0.88 B	1.6 B	0.34 U	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.76 U	1.2 U	.49 U	0.28 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.90 B	2.0 B	1.6 B	.52 U	7.89 J		
Iron	300 ST	7439-89-6	ug/l	13.7 B	10.9 B	125 J*	37.9 B	3.7 B	15 UB		
Lead	25 ST	7439-92-1	ug/l	1.3 U	2.1 U	1.8 U	1.5 U	7.8	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	1,390 B	43 U	895 B	242 B	1660 B	612		
Manganese	300 ST	7439-96-5	ug/l	8.6 B	0.40 B	111	25.8	188.0	34.1		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	0.10 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	1.6 B	1.2 U	1.4 U	20 U		
Potassium	-	7440-09-7	ug/l	1,420 B	57 U	1,480 B	1050 B	4210 B	2140		
Selenium	10 ST	7782-49-2	ug/l	NA	4.6 U	2.5 U	2.6 UNU*J*	2.1 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	.29 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	4,960 B	55 U	4,510 B	7,660	24,700	1,500		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	2.9 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	0.56 U	0.18 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	6.7 U	16.8 B	10.3 B	6.1 B	12.7 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10 U	10.0U	10.0 U	10.0 U	43,5 UB		
Iron + Manganese	500 ST*	-	ug/l	22.3	11.3	236	63.7	191.7	49.1		

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 limit.

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

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

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-11S 2/23/2007 (ug/l)	MW-11S 6/1/2007 (ug/l)	MW-11S 8/16/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	3,680	2,400	NA	NA	NA	NA	NA	2730
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 B
Arsenic	25 ST	7440-38-2	ug/l	3.0 B	4.3 B	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	60.7 B	72.4 B	NA	NA	NA	NA	NA	57.4 B
Beryllium	3 GV	7440-41-7	ug/l	0.19 B	0.46 B	NA	NA	NA	NA	NA	0.14 B
Boron	1,000 ST	7440-42-8	ug/l	82.4 B	83.3 B	NA	NA	NA	NA	NA	68.6 B
Cadmium	5 ST	7440-43-9	ug/l	0.28 U	0.25 B	0.32 B	0.32	0.32 U	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	45,000	58,600	49,800	44,000 J	45,600	55,600	58,100	46,500
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.02 U
Chromium Total	50 ST	7440-47-3	ug/l	**247**	46.5	NA	NA	NA	NA	NA	**109**
Cobalt	-	7440-48-4	ug/l	7.9 B	4.6 B	NA	NA	NA	NA	NA	3.6 B
Copper	200 ST	7440-50-8	ug/l	15.7 B	15.8 B	NA	NA	NA	NA	NA	12.6 B
Iron	300 ST	7439-89-6	ug/l	**4,950**	**3,210**	30.3 B	36.0 B	111	**5,540**	**2,260**	**3,440**
Lead	25 ST	7439-92-1	ug/l	6.4	19.6	1.7 U	1.4 U	1.4 U	8.40	6.9	7.7
Magnesium	35,000 GV	7439-95-4	ug/l	6,290	7,860	4,810 B	4,990 J	5,050	6,440	6,160	5,880
Manganese	300 ST	7439-96-5	ug/l	**3,830**	**3,950**	**2,990**	**3,120 J**	**3,020**	**4,070**	**2,910**	**3,070**
Mercury	0.7 ST	7439-97-6	ug/l	0.12 B	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	22.0 B	12.3 B	NA	NA	NA	NA	NA	7.3 B
Potassium	-	7440-09-7	ug/l	17,000	21,200	31,700	29,900	19,900	17,100	25,200	25,300
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.55 B
Sodium	20,000 ST	7440-23-5	ug/l	**47,900**	**50,400**	**53,800**	**54,900 J**	**36,500**	**45,300**	**52,400**	**56,200**
Thallium	0.5 GV	7440-28-0	ug/l	2.9 U	4.9 B	NA	NA	NA	NA	NA	1.9 U
Vanadium	-	7440-62-2	ug/l	8.9 B	7.8 B	NA	NA	NA	NA	NA	7.6 B
Zinc	2,000 ST	7440-66-6	ug/l	52.5	45.8	NA	NA	NA	NA	NA	17.2 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	**8,780**	**7,160**	**3,020.3**	**3,156.0**	**3,131.0**	**9,610**	**5,170**	**6,510**

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

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

N: Matrix spike sampe recovery not within control limits.

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 #	SITE: DATE: UNITS:	MW-11S 2/25/2009 (ug/l)	MW-11S 8/13/2009 (ug/l)	MW-11S 2/5/2010 (ug/l)	MW-11S 5/27/2011 (ug/l)	MW-11S 8/29/2012 (ug/l)	MW-11S 11/14/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	52.0 B	47.6 B	133 B	26.1 B	11.2 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.8 U	6.01 J		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	1.5 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	32.3 B	41.4 B	28.5 B	30.0 B	63.7		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	55.5 B	73.9 B	38.5 B	52.8 B	62		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.26 U	0.34 U	.27 U	0.087 U	10 U		
Calcium	-	7440-70-2	ug/l	43,000	44,300	60,800	39,500	47,500	47,900		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	6.8 B	47.9	9.1 B	0.70 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.80 B	1.2 U	.68 B	0.30 B	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	1.9 B	3.6 B	3.9 B	2.0 B	20 U		
Iron	300 ST	7439-89-6	ug/l	990	111	172 J*	454	11.3 B	23.3 UB		
Lead	25 ST	7439-92-1	ug/l	3.2	12.4	1.8 U	1.5 U	6.2	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	4,900 B	4,490 B	6,900	5,940	6,300	6,500		
Manganese	300 ST	7439-96-5	ug/l	3,270	3,250	4,450	2,440	1,140	668		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	0.10 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	1.8 B	3.1 B	1.2 U	3.6 B	20 U		
Potassium	-	7440-09-7	ug/l	12,900	15,700	19000	14,600	8,510	11,100		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 U	2.6 UNU*J*	2.1 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	0.29 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	38,300	38,900	56,800	44,100	57,000	14,900		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	2.9 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	.72 B	0.18 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	12.0 B	5.0 B	12.5 B	6.0 B	8.65 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	42.9 UB		
Iron + Manganese	500 ST*	-	ug/l	4,260	3,361	4,622	2,894	1,140	691.3		

NOTES:

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Concentration exceeds Standard/Guidance Value.

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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-12D 2/23/2007 (ug/l)	MW-12D 6/1/2007 (ug/l)	MW-12D 8/16/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	795	61.1 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	3.0 B	3.9 B	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	71.3 B	3.1 B	NA	NA	NA	NA	NA	4.7 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.37 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	22.2 B	19.3 B	NA	NA	NA	NA	NA	19.5 B
Cadmium	5 ST	7440-43-9	ug/l	0.28 U	0.16 U	0.28 U	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	13,000	7,220	9,130	11,500 J	11,100	12,000	11,200	11,600
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.80 B
Chromium Total	50 ST	7440-47-3	ug/l	3.2 B	0.44 B	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 B	0.40 U	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	7.2 B	0.44 U	NA	NA	NA	NA	NA	0.65 U
Iron	300 ST	7439-89-6	ug/l	1,170	29.1 B	9.6 B	28.8 B	24.2 U	37.4 B	6.6 U	9.2 B
Lead	25 ST	7439-92-1	ug/l	12.1	1.1 U	1.7 U	1.4 U	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	3,830 B	3,650 B	4,160 B	5,770 J	5,480	6,130	6,260	6,100
Manganese	300 ST	7439-96-5	ug/l	35.5	3.2 B	1.8 B	1.9 JB	2.7 B	4.7 B	3.0 B	3.1 B
Mercury	0.7 ST	7439-97-6	ug/l	0.12 B	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	2.1 B	0.78 U	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	1,100 B	740 B	810 B	878 B	945 B	1,030 B	1,340 U	1,060 B
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	7,200	6,370	7,780	9,580 J	12,000	11,900	13,400	11,700
Thallium	0.5 GV	7440-28-0	ug/l	3.5 B	5.6 B	NA	NA	NA	NA	NA	1.9 U
Vanadium	-	7440-62-2	ug/l	2.5 B	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	63.5	8.4 B	NA	NA	NA	NA	NA	5.2 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	1,205.5	32.3	11.4	30.7	26.9	42.1	9.6	12.3

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.

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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-12D 2/25/2009 (ug/l)	MW-12D 8/13/2009 (ug/l)	MW-12D 2/5/2010 (ug/l)	MW-12D 5/27/2011 (ug/l)	MW-12D 8/29/2012 (ug/l)	MW-12D 11/14/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	12.5 U	101 B	290	70.9 B	20 U		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.8 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	1.5 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	6.6 B	7.5 B	8.0 B	4.3 B	7.67 J		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	0.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	9.5 B	19.0 B	9.0 B	11 B	13		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.26 U	0.34 U	0.27 U	0.1 B	10 U		
Calcium	-	7440-70-2	ug/l	12,500	11,500	9,410	6,990	5,030	4,950		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	1.1 B	0.65 B	2.4 B	1.1 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.76 U	1.2 U	0.49 U	.28 U	20 U		
Copper	200 ST.	7440-50-8	ug/l	NA	0.90 B	2.9 B	4.1 B	1.2 B	20 U		
Iron	300 ST	7439-89-6	ug/l	12.6 B	12.4 B	139 J*	541	83.8 B	11.2 UB		
Lead	25 ST	7439-92-1	ug/l	1.3 U	12.3	1.8 U	2.8 B	7.9	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	6,560	5,420	5190	3,520 B	2400 B	2,540		
Manganese	300 ST	7439-96-5	ug/l	3.6 B	2.6 B	8.9 B	14.8 B	23.5	20 U		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10U U*J*	0.10 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	1.4 U	1.2 U	1.1 B	20 U		
Potassium	-	7440-09-7	ug/l	1,150 B	1,210 B	1,400 B	1,590 B	65.3 U	659		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 U	2.6 UNU*J*	2.1 U	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	0.29 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	13,600	15,300	14,800	12,000	8,580	2810		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	2.9 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	1.1 B	0.20 B	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	22.3	13.7 B	25.1	12.9 B	10.8 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	36.3 UB		
Iron + Manganese	500 ST*	-	ug/l	16.2	15.0	147.9	555.8	107.3	11.2		

NOTES:

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Concentration exceeds Standard/Guidance Value.

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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-12I 2/23/2007 (ug/l)	MW-12I 6/1/2007 (ug/l)	MW-12I 8/16/2007 (ug/l)	MW-12I 11/14/2007 (ug/l)	MW-12I 2/12/2008 (ug/l)	MW-12I 5/14/2008 (ug/l)	MW-12I 8/6/2008 (ug/l)	MW-12I 11/5/2008 (ug/l)
Aluminum	-	7429-90-5	ug/l	120 B	52.6 B	NA	NA	NA	NA	NA	8.7 U
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	4.1 B	2.8 B	NA	NA	NA	NA	NA	1.8 U
Barium	1,000 ST	7440-39-3	ug/l	25.0 B	12.8 B	NA	NA	NA	NA	NA	13.0 B
Beryllium	3 GV	7440-41-7	ug/l	0.17 U	0.30 B	NA	NA	NA	NA	NA	0.096 U
Boron	1,000 ST	7440-42-8	ug/l	88.2 B	67.8 B	NA	NA	NA	NA	NA	30.7 B
Cadmium	5 ST	7440-43-9	ug/l	3.9 B	0.16 U	0.28 U	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	22,900	4,420 B	4,490 B	5,780 J	6,480	7,190	7,480	6,570
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.41 U
Chromium Total	50 ST	7440-47-3	ug/l	1.3 B	0.33 U	NA	NA	NA	NA	NA	0.02 U
Cobalt	-	7440-48-4	ug/l	1.3 U	0.40 U	NA	NA	NA	NA	NA	0.88 U
Copper	200 ST	7440-50-8	ug/l	10.8 B	9.8 B	NA	NA	NA	NA	NA	0.65 U
Iron	300 ST	7439-89-6	ug/l	165	31.7 B	17.5 B	24.2 U	264	66.6 B	12.0 B	7.8 B
Lead	25 ST	7439-92-1	ug/l	2.3 B	1.1 U	1.7 U	1.4 U	1.4 U	2.3 U	2.3 U	1.3 U
Magnesium	35,000 GV	7439-95-4	ug/l	2,680 B	707 B	686 B	889 JB	960 B	1,120 B	1,040 B	899 B
Manganese	300 ST	7439-96-5	ug/l	3,470	368	374	650 J	918	1,040	1,540	1,200
Mercury	0.7 ST	7439-97-6	ug/l	0.12 B	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	3.2 B	0.78 U	NA	NA	NA	NA	NA	1.2 U
Potassium	-	7440-09-7	ug/l	10,100	2,920 B	2,890 B	2,150 B	2,750 B	3,300 B	3,950 B	3,320 B
Selenium	10 ST	7782-49-2	ug/l	1.7 U	3.0 U	NA	NA	NA	NA	NA	1.9 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	16,100	16,900	U*	10,700 J	11,400	12,400	11,700	10,700
Thallium	0.5 GV	7440-28-0	ug/l	3.5 B	3.6 B	NA	NA	NA	NA	NA	1.9 U
Vanadium	-	7440-62-2	ug/l	1.4 U	1.1 U	NA	NA	NA	NA	NA	0.74 U
Zinc	2,000 ST	7440-66-6	ug/l	136	16.6 B	NA	NA	NA	NA	NA	2.8 B
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	3,635	399.7	391.5	674	1,182	1,106.6	1552	1207.8

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

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

N: Matrix spike sampe recovery not within control limits.

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 #	SITE: DATE: UNITS:	MW-12I 2/25/2009 (ug/l)	MW-12I 8/13/2009 (ug/l)	MW-12I 2/5/2010 (ug/l)	MW-12I 5/27/2011 (ug/l)	MW-12I 8/29/2012 (ug/l)	MW-12I 11/14/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	12.5 U	190 B	562	299	7.24 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.8 U	20 U		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	1.5 U	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	28.5 B	23.4 B	18.8 B	22.1 B	37.3		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	23.9 B	22.4 B	13.0 B	18.3 B	19		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.26 U	0.97 B	2.5 B	4.2 B	10 U		
Calcium	-	7440-70-2	ug/l	11,800	9,260	8,260	6,930	9,490	20,100		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	0.49 U	1.0 B	2.6 B	3.0 B	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.76 U	1.2 U	0.49 U	0.28 U	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.70 B	4.1 B	6.4 B	1.9 B	20 U		
Iron	300 ST	7439-89-6	ug/l	9.2 B	14.9 B	161 J*	878	343	23.5 UB		
Lead	25 ST	7439-92-1	ug/l	1.3 U	9.1	1.8 U	5.0	5.5	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	1,530 B	1,070 B	984 B	1210 B	1470 B	4,510		
Manganese	300 ST	7439-96-5	ug/l	2,650	3,760	457	1,820	3,710	2,830		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	0.10 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	0.82 U	1.6 B	1.2 U	1.4 B	20 U		
Potassium	-	7440-09-7	ug/l	3,870 B	5,630	5020	4050 B	6,670	2910		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 U	2.6 UNU*J*	2.5 BJ	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	0.60 B	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	14,900	14,500	9,940	8,910	29,300	6,140		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	3.8 B	2.9 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	1.4 U	2.3 B	0.18 U	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	29	65.5	53.4	27	14.7 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10	45.1 UB		
Iron + Manganese	500 ST*	-	ug/l	2,659.2	3,769.2	618	2,498	4,053	2,853.50		

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

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

N: Matrix spike sampe recovery not within control limits.

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 #	SITE: DATE: UNITS:	MW-12S 2/23/2007 (ug/l)	MW-12S 6/1/2007 (ug/l)	MW-12S 8/16/2007 (ug/l)	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)
Aluminum	-	7429-90-5	ug/l	5,050	3,530	NA	NA	NA	NA	NA	6710
Antimony	3 GV	7440-36-0	ug/l	3.2 U	1.6 U	NA	NA	NA	NA	NA	2.3 U
Arsenic	25 ST	7440-38-2	ug/l	8.0 B	7.1 B	NA	NA	NA	NA	NA	6.0 B
Barium	1,000 ST	7440-39-3	ug/l	39.8 B	30.4 B	NA	NA	NA	NA	NA	47.1 B
Beryllium	3 GV	7440-41-7	ug/l	0.27 B	0.59 B	NA	NA	NA	NA	NA	0.38 B
Boron	1,000 ST	7440-42-8	ug/l	46.8 B	37.6 B	NA	NA	NA	NA	NA	55.4 B
Cadmium	5 ST	7440-43-9	ug/l	0.29 B	0.21 B	0.28 U	0.32 U	0.32 U	0.27 U	0.27 U	0.35 U
Calcium	-	7440-70-2	ug/l	27,400	22,700	24,600	27,000 J	30,400	26,900	29,200	29,900
Chromium Hexavalent	50 ST	18540-29-9	ug/l	0.02 U	NA	NA	NA	NA	NA	NA	0.02 U
Chromium Total	50 ST	7440-47-3	ug/l	320	72.4	NA	NA	NA	NA	NA	203
Cobalt	-	7440-48-4	ug/l	5.5 B	3.5 B	NA	NA	NA	NA	NA	5.4 B
Copper	200 ST	7440-50-8	ug/l	12.9 B	6.0 B	NA	NA	NA	NA	NA	12.8 B
Iron	300 ST	7439-89-6	ug/l	9,180	7,040	21.2 B	132	3,060	864	3,630	10,500
Lead	25 ST	7439-92-1	ug/l	4.8	3.0 B	1.7 U	1.4 U	1.4 U	2.3 U	2.8 B	5.0
Magnesium	35,000 GV	7439-95-4	ug/l	2,290 B	2,290 B	2,000 B	1,720 JB	1,860 B	2,210 B	2,490 B	2,770
Manganese	300 ST	7439-96-5	ug/l	412	295	2.2 B	2.8 JB	17.7	28.5	139	357
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U	NA	NA	NA	NA	NA	NA	0.13 U
Nickel	100 ST	7440-02-0	ug/l	29.1 B	16.6 B	NA	NA	NA	NA	NA	19.7 B
Potassium	-	7440-09-7	ug/l	17,500	11,400	17,900	17,600	14,400	11,200	19,900	20,100
Selenium	10 ST	7782-49-2	ug/l	2.4 B	3.0 U	NA	NA	NA	NA	NA	1.9 U
Silver	50 ST	7440-22-4	ug/l	0.38 U	0.51 U	NA	NA	NA	NA	NA	0.54 U
Sodium	20,000 ST	7440-23-5	ug/l	20,400	18,600	U*	22,000 J	26,300	22,400	28,200	39,800
Thallium	0.5 GV	7440-28-0	ug/l	5.0 B	5.5 B	NA	NA	NA	NA	NA	1.9 U
Vanadium	-	7440-62-2	ug/l	14.0 B	9.3 B	NA	NA	NA	NA	NA	15.9 B
Zinc	2,000 ST	7440-66-6	ug/l	52.2	23.9	NA	NA	NA	NA	NA	23.9
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	NA	NA	NA	NA	NA	NA	10.0 U
Iron + Manganese	500 ST*	-	ug/l	9,592	7,335	23.4	134.8	3,062.8	892.5	3,769	10,857

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.

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

N: Matrix spike sampe recovery not within control limits.

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 #	SITE: DATE: UNITS:	MW-12S 2/25/2009 (ug/l)	MW-12S 8/13/2009 (ug/l)	MW-12S 2/5/2010 (ug/l)	MW-12S 5/27/2011 (ug/l)	MW-12S 8/29/2012 (ug/l)	MW-12S 11/14/2013 (ug/l)		
Aluminum	-	7429-90-5	ug/l	NA	12.5 U	157 B	1480	64.3 B	13.1 J		
Antimony	3 GV	7440-36-0	ug/l	NA	2.5 U	2.1 U	2.1 U	1.8 U	6.04 J		
Arsenic	25 ST	7440-38-2	ug/l	NA	3.0 U	2.3 U	1.9 U	1.5 B	25 U		
Barium	1,000 ST	7440-39-3	ug/l	NA	26.7 B	25.1 B	52.0 B	19.6 B	55.1		
Beryllium	3 GV	7440-41-7	ug/l	NA	0.13 U	0.26 U	0.13 U	0.12 U	20 U		
Boron	1,000 ST	7440-42-8	ug/l	NA	38.1 B	42.9 B	26.5 B	41.0 B	36		
Cadmium	5 ST	7440-43-9	ug/l	0.35 U	0.26 U	0.34 U	0.27 U	0.10 B	10 U		
Calcium	-	7440-70-2	ug/l	28,200	30,800	28,900	35,200	41,600	30,900		
Chromium Hexavalent	50 ST	18540-29-9	ug/l	NA	0.02 U	0.02 U	20 U	0.2 U	10 U		
Chromium Total	50 ST	7440-47-3	ug/l	NA	3.2 B	152	1,350	53.1	20 U		
Cobalt	-	7440-48-4	ug/l	NA	0.76 U	2.4 B	10.1 B	1.4 B	20 U		
Copper	200 ST	7440-50-8	ug/l	NA	0.90 B	3.2 B	35.6	4.3 B	20 U		
Iron	300 ST	7439-89-6	ug/l	110	64.6 B	1,100 J*	9,280	524	40.3 UB		
Lead	25 ST	7439-92-1	ug/l	1.3 U	7.9	1.8 U	9.7	5.9	15 U		
Magnesium	35,000 GV	7439-95-4	ug/l	2,440 B	2,410 B	2,620 B	3,980 B	3540 B	2,400		
Manganese	300 ST	7439-96-5	ug/l	24.4	10.0 B	136	552	596	17.8 J		
Mercury	0.7 ST	7439-97-6	ug/l	NA	0.10 U	0.10 U	0.10 UU*J*	0.10 U	0.25 U		
Nickel	100 ST	7440-02-0	ug/l	NA	2.1 B	7.9 B	74.7	11.6 B	7.38 J		
Potassium	-	7440-09-7	ug/l	15,300	15,400	19500	18,300	15,300	22,000		
Selenium	10 ST	7782-49-2	ug/l	NA	5.3 U	2.5 U	2.6 UNU*J*	2.4 BJ	25 U		
Silver	50 ST	7440-22-4	ug/l	NA	0.33 U	0.83 U	0.52 UU*J*	0.29 U	20 U		
Sodium	20,000 ST	7440-23-5	ug/l	31,600	24,400	30,800	38,800	29,100	12,500		
Thallium	0.5 GV	7440-28-0	ug/l	NA	3.9 U	3.2 U	2.7 U	2.9 U	15 U		
Vanadium	-	7440-62-2	ug/l	NA	0.77 U	2.6 B	16.9 B	0.80 B	20 U		
Zinc	2,000 ST	7440-66-6	ug/l	NA	8.3 B	11.6 B	42.9	37.6	12.7 UB		
Cyanide	200 ST	0057-12-5	ug/l	NA	10.0 U	10.0 U	10.0 U	10.0 U	50.7 UB		
Iron + Manganese	500 ST*	-	ug/l	134.4	74.6	1,236	9,832	1,120	58.1		

NOTES:

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NA: Not analyzed.

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APPENDIX A-3

Monitoring Well Sample Results - Volatile Organic Compounds

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-01D 2/21/2007 (ug/l)	MW-01D 11/3/2008 (ug/l)	MW-01D 8/12/2009 (ug/l)	MW-01D 2/4/2010 (ug/l)	MW-01D 5/26/2011 (ug/l)	MW-01D 8/28/2012 (ug/l)	MW-01D 11/12/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	3 J*	5 U	5 U	5 U	3 J	0.65 J	5 ST
1,1-Dichloroethene	000075-35-4	5 U	1 J*	3 J	5 U	5 U	1 J	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	U*	U*	5 U	1 BJ	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	5.5 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2 J	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		11	6	3 J	5 U	5 U	4 J	0.65	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-01I 2/21/2007 (ug/l)	MW-01I 11/3/2008 (ug/l)	MW-01I 8/12/2009 (ug/l)	MW-01I 2/4/2010 (ug/l)	MW-01I 5/26/2011 (ug/l)	MW-01I 8/28/2012 (ug/l)	MW-01I 11/12/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 UJ*	5 U	1 J	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 J*	5 U	5 UJ*	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 UJ*	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	5 UJ*	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 J*	5 U	5 UJ*	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 UJ*	5 U	2 J	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 J*	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 U	5 UJ*	5 U	5 U	5.0 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	1 J*	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 J*	5 U	5 UJ*	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 UJ*	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	U	5 UJ*	5 U	3 J	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-01S 2/21/2007 (ug/l)	MW-01S 11/3/2008 (ug/l)	MW-01S 8/12/2009 (ug/l)	MW-01S 2/4/2010 (ug/l)	MW-01S 5/26/2011 (ug/l)	MW-01S 8/28/2012 (ug/l)	MW-01S 11/12/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	1 BJ	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	5.7 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 UU*J*	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	U	5 U	5 U	5 U	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-02D 02/22/07 (ug/l)	MW-02D 11/3/2008 (ug/l)	MW-02D 8/14/2009 (ug/l)	MW-02D 2/8/2010 (ug/l)	MW-02D 5/31/2011 (ug/l)	MW-02D 8/28/2012 (ug/l)	MW-02D 11/12/2013 ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 UJ	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 UJ	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 UJ*	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	5 U	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 UJ	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 UJ*	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	1 J*	1 J	1 J	5 U	5 U	0.50 J	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	3.9 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 UJ	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 UJ*	5 U	5 UJ	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	1 J*	1 J	5 U	5 U	5 U	0.5	

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

NOTES
GV: Guidance Value
ST: Standard
NA: Not Analyzed
: Parameter exceeds Standard/Guidance Value
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J*: Result qualified as estimated based on

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-02I 02/22/07 (ug/l)	MW-02I 11/3/2008 (ug/l)	MW-02I 8/14/2009 (ug/l)	MW-02I 2/8/2010 (ug/l)	MW-02I 5/31/2011 (ug/l)	MW-02I 8/28/2012 (ug/l)	MW-02I 11/12/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	5 U	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 UJ*	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	6.0 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	U	5 U	5 U	5 U	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	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)	MW-03S 6/1/2011 (ug/l)	MW-03S 8/28/2012 (ug/l)	MW-03S 11/13/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 UJ	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	0.56 J	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	0.70 J	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 UJ	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	1 BJ	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 UJ	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 UJ	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.9 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 UJ	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 UJ	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	U	5 U	5 U	5 U	1.26	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-04D 02/23/07 (ug/l)	MW-04D 11/3/2008 (ug/l)	MW-04D 8/12/2009 (ug/l)	MW-04D 2/4/2010 (ug/l)	MW-04D 5/26/2011 (ug/l)	MW-04D 8/27/2012 (ug/l)	MW-04D 11/13/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	5 U	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.7 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	U	5 U	5 U	5 U	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-04I 02/23/07 (ug/l)	MW-04I 11/4/2008 (ug/l)	MW-04I 8/12/2009 (ug/l)	MW-04I 2/4/2010 (ug/l)	MW-04I 5/26/2011 (ug/l)	MW-04I 8/27/2012 (ug/l)	MW-04I 11/13/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	1 J	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	5 U	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.2 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	1 J	5 U	5 U	5 J	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-04S 3/2/2007 (ug/l)	MW-04S 11/3/2008 (ug/l)	MW-04S 8/12/2009 (ug/l)	MW-04S 2/4/2010 (ug/l)	MW-04S 5/31/2011 (ug/l)	MW-04S 8/27/2012 (ug/l)	MW-04S 11/13/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 UJ	5 UJ	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 UJ	5 UJ	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 J	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	1 BJ	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	2 J	2 J*	5 U	2 J	2 J	3 J	0.75 J	5 ST
Chloroethane	000075-00-3	2 J	5 U	5 U	1 J	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.6 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		4	2 J*	U	5 U	5 U	3 J	0.75	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-05D 02/21/07 (ug/l)	MW-05D 11/5/2008 (ug/l)	MW-05D 8/17/2009 (ug/l)	MW-05D 2/8/2010 (ug/l)	MW-05D 6/1/2011 (ug/l)	MW-05D 8/28/2012 (ug/l)	MW-05D 11/13/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	5 U	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 UJ*	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.7 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	1 J*	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	1 J*	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 UJ	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	2	U	5 U	5 U	5 U	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-05I 02/21/07 (ug/l)	MW-05I 11/5/2008 (ug/l)	MW-05I 8/17/2009 (ug/l)	MW-05I 2/8/2010 (ug/l)	MW-05I 5/31/2011 (ug/l)	MW-05I 8/28/2012 (ug/l)	MW-05I 11/13/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 UU*J*	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 UU*J*	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	2 BJ	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 UJ*	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	1 J	5 UJ*	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.1 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 UU*J*	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	1 J	5 U	5 U	5 U	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-05S 02/21/07 (ug/l)	MW-05S 11/5/2008 (ug/l)	MW-05S 8/17/2009 (ug/l)	MW-05S 2/8/2010 (ug/l)	MW-05S 5/31/2011 (ug/l)	MW-05S 8/29/2012 (ug/l)	MW-05S 11/13/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	2 BJ	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 UJ*	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	3 J*	5 U	2 J	2 J	2 J	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.4 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	3	U	5 U	2	2	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-06D 02/22/07 (ug/l)	MW-06D 11/3/2008 (ug/l)	MW-06D 8/11/2009 (ug/l)	MW-06D 2/4/2010 (ug/l)	MW-06D 5/26/2011 (ug/l)	MW-06D 8/27/2012 (ug/l)	MW-06D 11/12/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	5 U	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	1 J	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.4 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	1 J*	5 U	5 U	1 J	5 U	0.54 J	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	1	U	5 U	1	5 U	0.54	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-06I 02/22/07 (ug/l)	MW-06I 11/4/2008 (ug/l)	MW-06I 8/11/2009 (ug/l)	MW-06I 2/4/2010 (ug/l)	MW-06I 5/26/2011 (ug/l)	MW-06I 8/27/2012 (ug/l)	MW-06I 11/12/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 UJ*	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 UJ*	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 UJ*	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 UJ*	5 U	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 UJ*	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	0.51 J	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 UJ*	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	5.7 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	UJ*	5 U	5 U	5 U	0.51	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-06S 02/22/07 (ug/l)	MW-06S 11/4/2008 (ug/l)	MW-06S 8/11/2009 (ug/l)	MW-06S 2/4/2010 (ug/l)	MW-06S 5/26/2011 (ug/l)	MW-06S 8/27/2012 (ug/l)	MW-06S 11/13/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	5 UJ*	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	1 J*	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	4 J*	5 U	5 UJ*	2 J	3 J	0.67 J	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 UJ*	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	1 BJ*	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 UJ*	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	1 J	4 J*	5 U	2 J*	3 J	3 J	0.90 J	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 UJ*	5 U	5 U	4.5 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 UJ*	5 U	5 U	NA	5 ST
TOTAL VOCs		1	8	U	5 UJ*	5	6 J	1.57	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-07I 02/22/07 (ug/l)	MW-07I 11/4/2008 (ug/l)	MW-07I 8/14/2009 (ug/l)	MW-07I 2/8/2010 (ug/l)	MW-07I 5/26/2011 (ug/l)	MW-07I 8/27/2012 (ug/l)	MW-07I 11/12/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	5 U	5 UU*	5 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 UJ*	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	19	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.2 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	4 J*	5 U	5 U	5 U	2 J	12	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 UJ*	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	23	U	5 U	5 U	2	12	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-11D 02/28/07 (ug/l)	MW-11D 11/5/2008 (ug/l)	MW-11D 8/13/2009 (ug/l)	MW-11D 2/5/2010 (ug/l)	MW-11D 5/27/2011 (ug/l)	MW-11D 8/29/2012 (ug/l)	MW-11D 11/14/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5	3 J*	5 U	5 U	5 U	5 U	0.95 J	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5	3 J*	5 U	5 U	5 U	1 J	1.1 J	5 ST
1,1-Dichloroethene	000075-35-4	2 J	3 J*	5 U	5 U	5 U	5 U	0.67 J	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.3	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	2 BJ	5 U*	5 U	2.4 UB	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	3.9 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	1 J*	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2 J*	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		12	12	U	5 U	5 U	1	5.02	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-11I 02/28/07 (ug/l)	MW-11I 11/4/2008 (ug/l)	MW-11I 8/13/2009 (ug/l)	MW-11I 2/5/2010 (ug/l)	MW-11I 5/27/2011 (ug/l)	MW-11I 8/29/2012 (ug/l)	MW-11I 11/14/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 UJ	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 UJ	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	5 U	5 UU*	5 U	2.4 UB	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 UJ	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	2 J*	5 U	2 J	5 U	2 J	0.63 J	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	3.6 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2 J*	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 UJ	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 UJ	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	4	U	5 U	5 U	2	0.63	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-11S 02/23/07 (ug/l)	MW-11S 11/4/2008 (ug/l)	MW-11S 8/13/2009 (ug/l)	MW-11S 2/5/2010 (ug/l)	MW-11S 5/27/2011 (ug/l)	MW-11S 8/29/2012 (ug/l)	MW-11S 11/14/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	4 J*	5 U	5 U	5 UU*	5 U	3.0 UB	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	5.1 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	2 J	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	4	U	5 U	5 U	2	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-12D 02/23/07 (ug/l)	MW-12D 11/4/2008 (ug/l)	MW-12D 8/13/2009 (ug/l)	MW-12D 2/5/2010 (ug/l)	MW-12D 5/27/2011 (ug/l)	MW-12D 8/29/2012 (ug/l)	MW-12D 11/14/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 UJ*	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 UJ*	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	1 BJ	5 UU*	5 U	2.7 UB	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ibdomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.9 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 UJ*	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	U	U	5 U	5 U	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-12I 02/23/07 (ug/l)	MW-12I 11/4/2008 (ug/l)	MW-12I 8/13/2009 (ug/l)	MW-12I 2/5/2010 (ug/l)	MW-12I 5/27/2011 (ug/l)	MW-12I 8/29/2012 (ug/l)	MW-12I 11/14/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 UU*J*	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 UU*J*	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	1 BJ	5 UU*	2 JU	2.1 UB	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.7 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 UU*J*	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	U	1	5 U	2	0	

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* or UB: 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

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

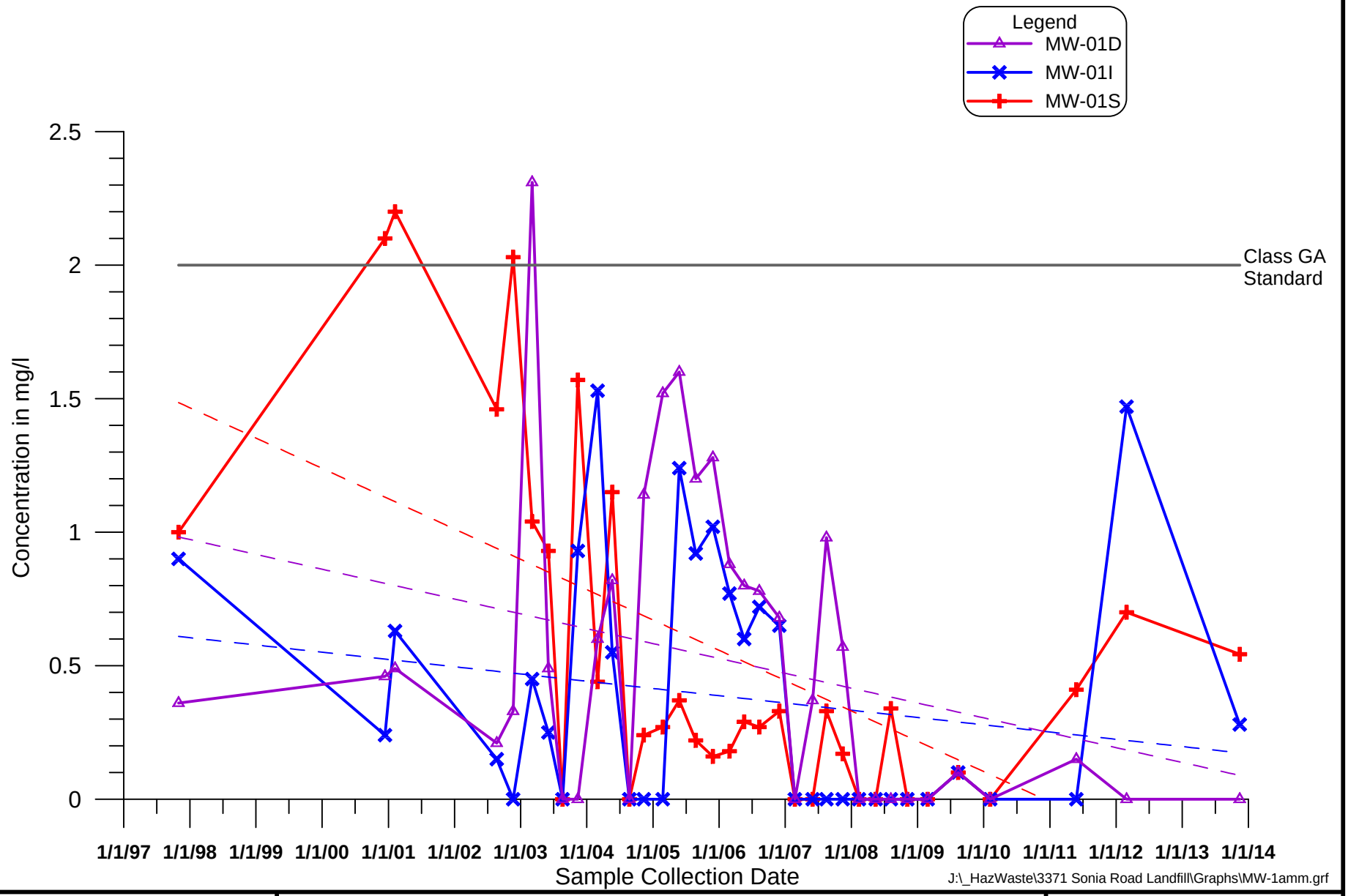
Sample ID Date of Collection Volatile Organic Compounds	CAS #	MW-12S 02/23/07 (ug/l)	MW-12S 11/4/2008 (ug/l)	MW-12S 8/13/2009 (ug/l)	MW-12S 2/5/2010 (ug/l)	MW-12S 5/27/2011 (ug/l)	MW-12S 8/29/2012 (ug/l)	MW-12S 11/14/2013 (ug/l)	NYSDEC Class GA GROUNDWATER STANDARD/GUIDANCE VALUE
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
1,2-Dichlorobenzene	000095-50-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	3 ST
2-Butanone	000078-93-3	5 U	5 U	5 U	5 U	5 U	1 J	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	-
Acetone	000067-64-1	5 U	5 U	5 U	5 U	5 UU*	3 JU	2.2 UB	50 GV
Acrylonitrile	000107-13-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Benzene	000071-43-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromoform	000075-25-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Bromomethane	000074-83-9	5 U	5 U	5 U	5 U	5 UU*J*	5 U	2.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroethane	000075-00-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Chloroform	000067-66-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	7 ST
Chloromethane	000074-87-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	50 GV
Dibromomethane	000074-95-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Iodomethane	000074-88-4	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5 U	5 UJ*	5 U	5 U	5 U	4.1 UB	5 ST
Styrene	000100-42-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Toluene	000108-88-3	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	-
Vinyl chloride	000075-01-4	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U	2 ST
m,p-Xylene	001330-20-7	NA	NA	NA	NA	NA	NA	4.0 U	5 ST
o-Xylene	000095-47-6	NA	NA	NA	NA	NA	NA	2.0 U	5 ST
Xylene (total)	001330-20-7	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 ST
TOTAL VOCs		U	U	U	5 U	5 U	4	0	

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* or UB: 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

APPENDIX B

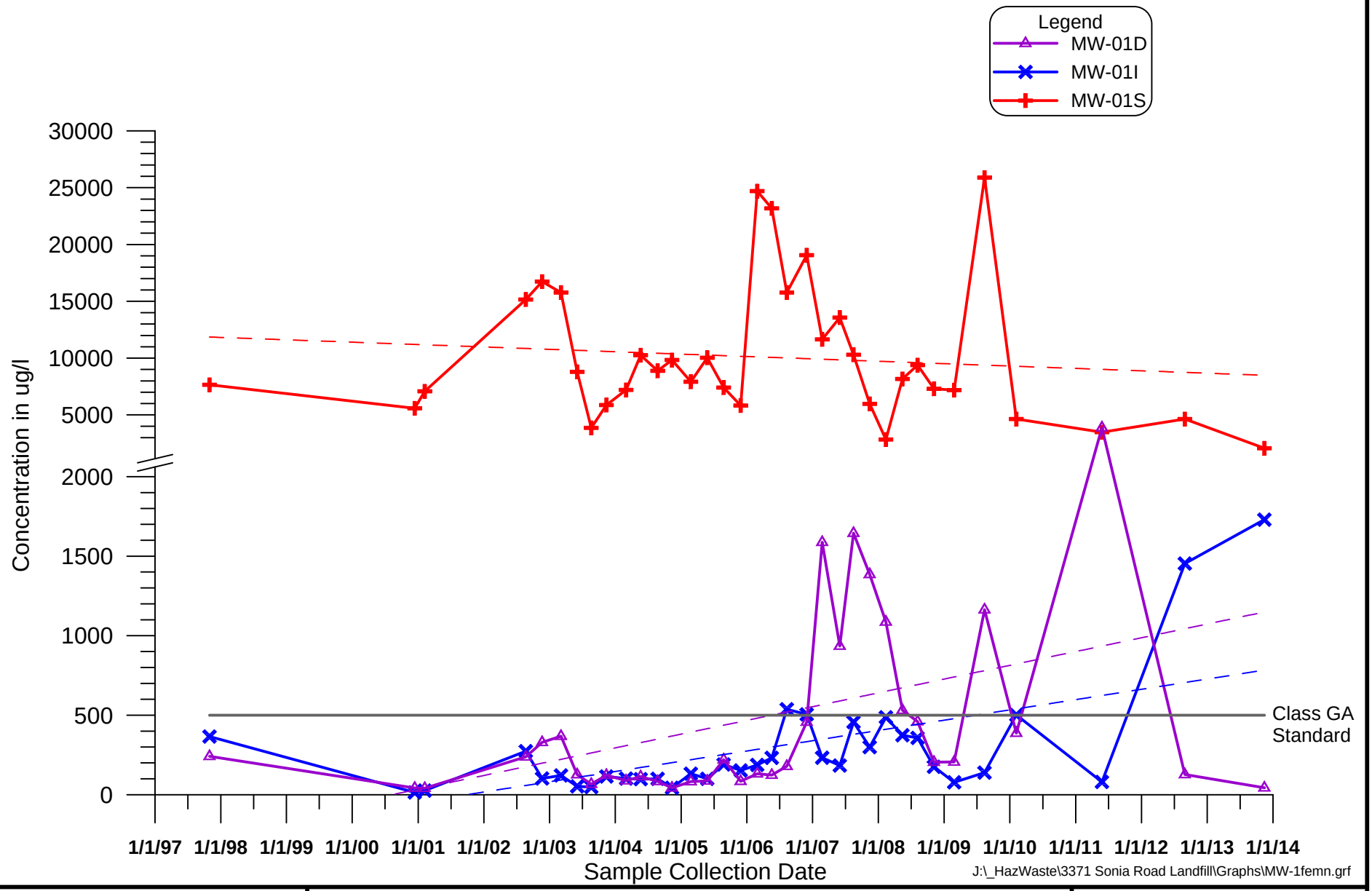
Water Quality Graphs



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Ammonia Data for Monitoring Well Cluster 1

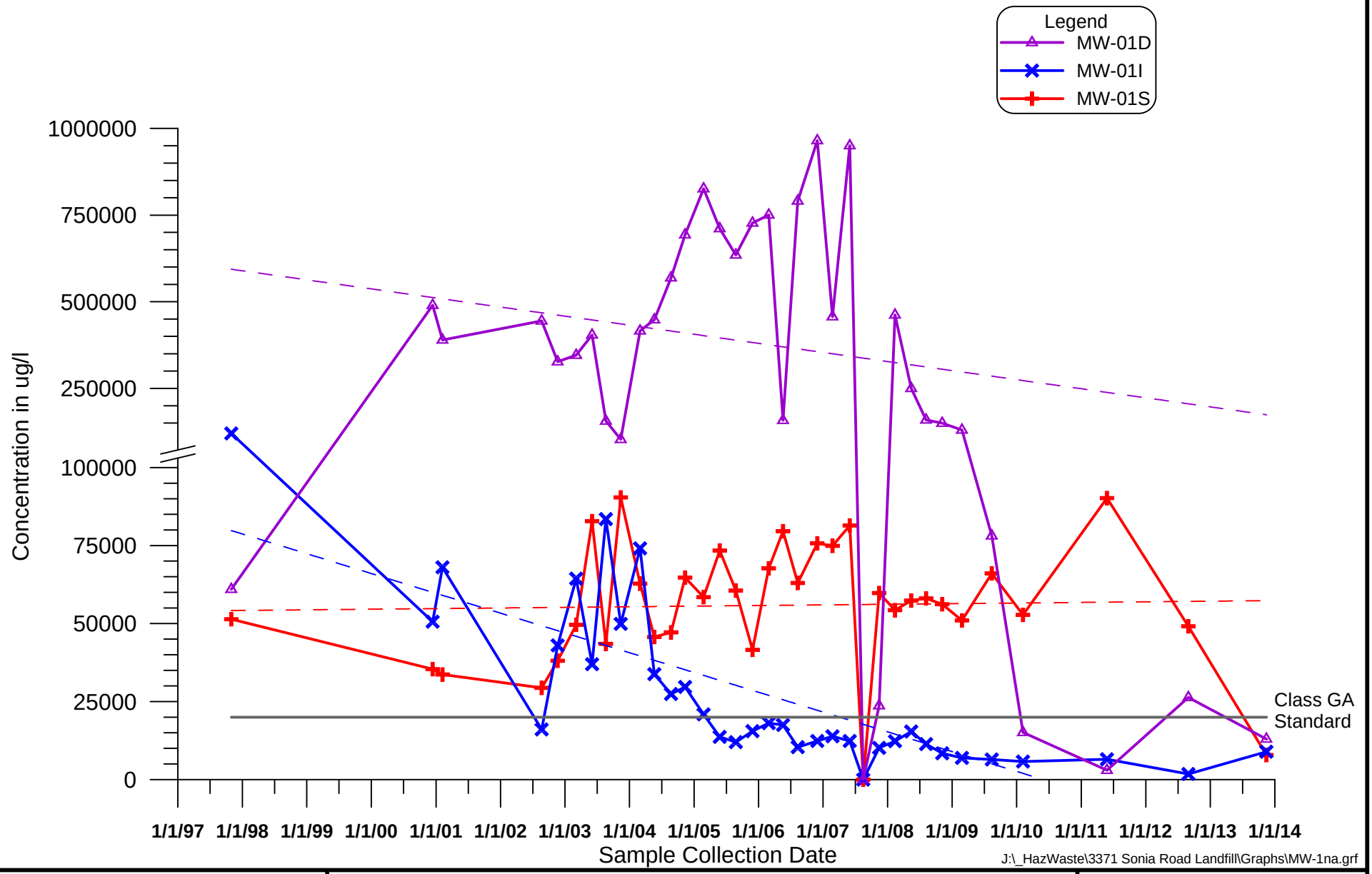
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sum of Iron and Manganses Data for
Monitoring Well Cluster 1

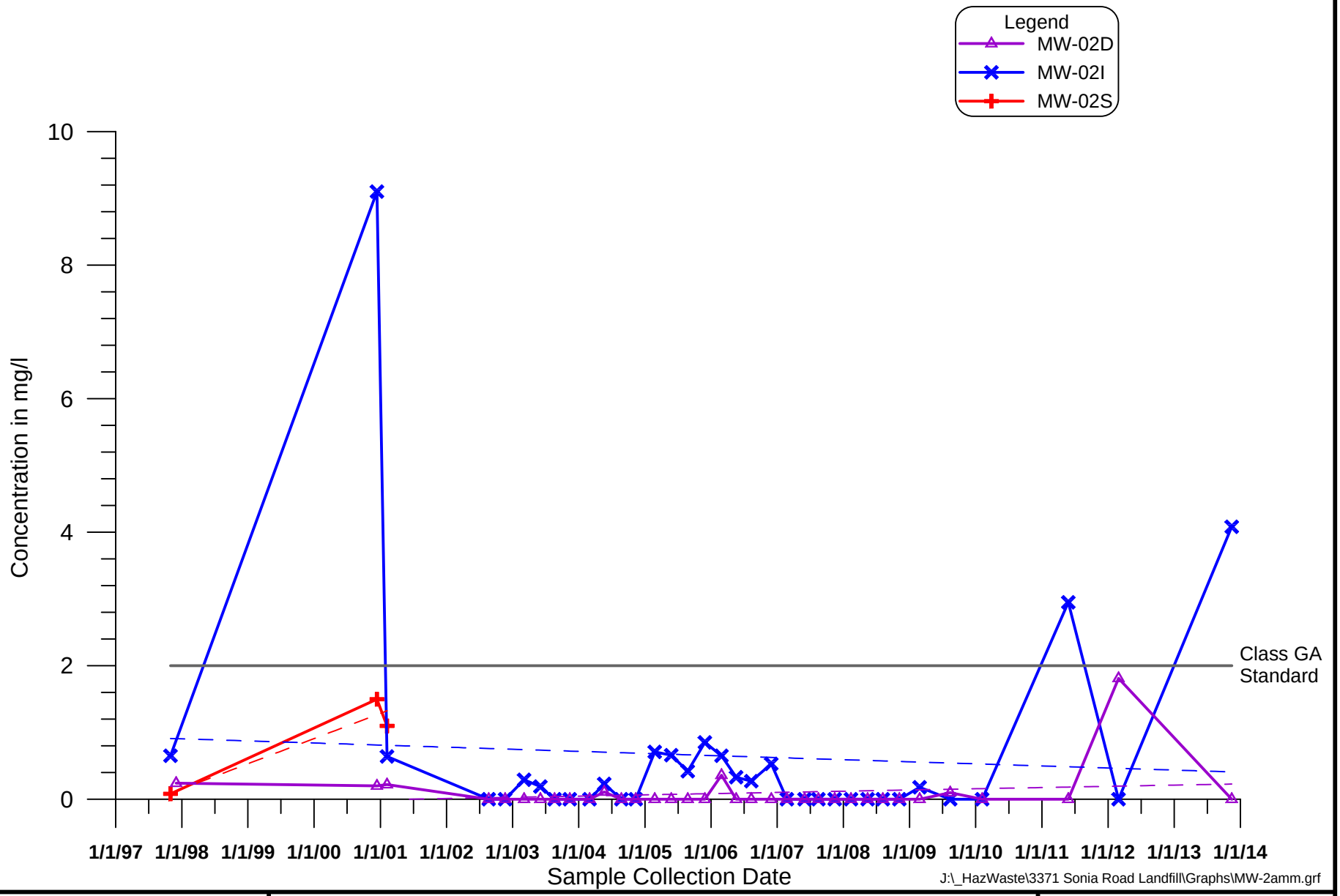
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sodium Data for Monitoring Well Cluster 1

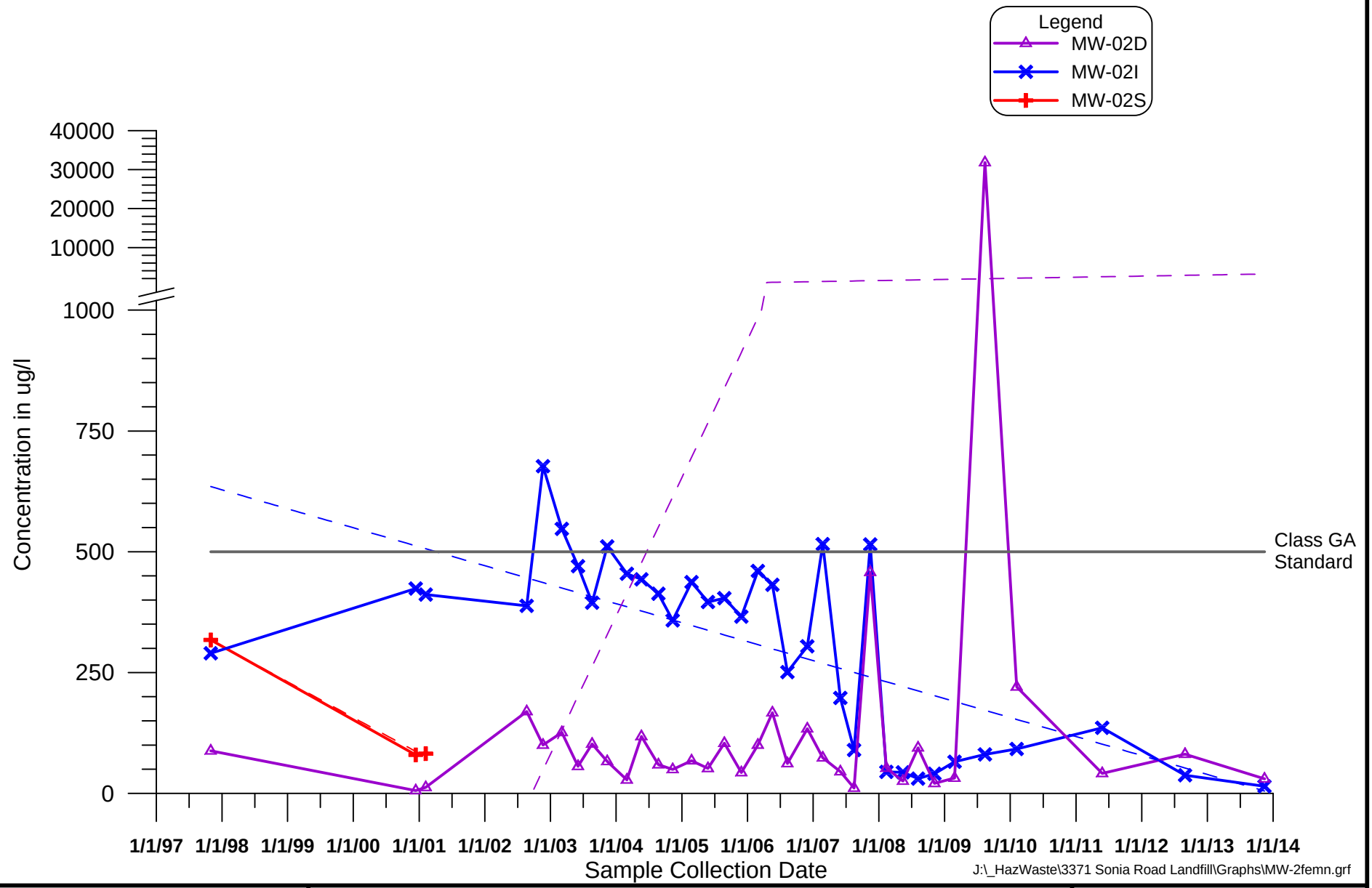
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Ammonia Data for Monitoring Well Cluster 2

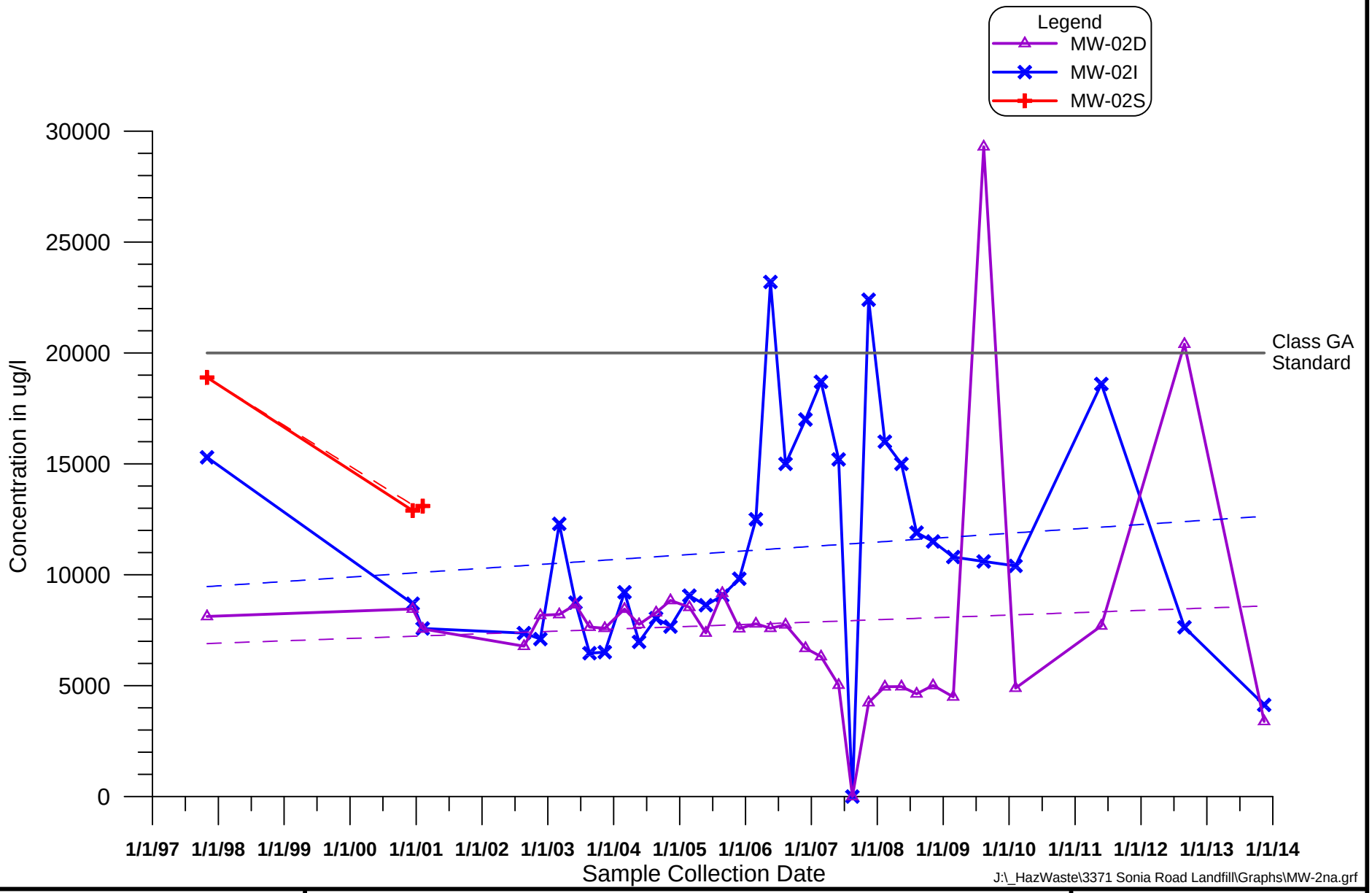
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sum of Iron and Manganses Data for
Monitoring Well Cluster 2

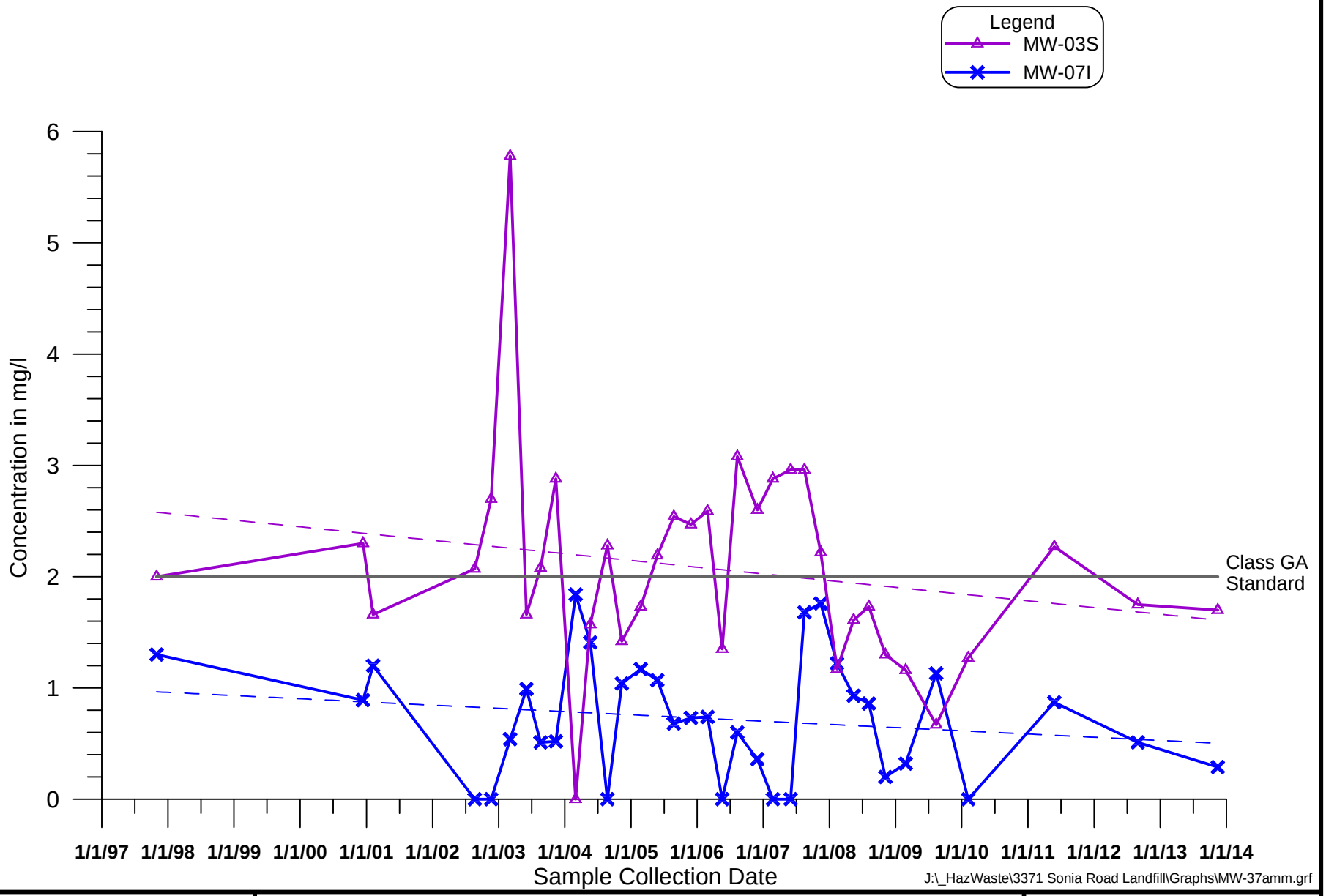
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sodium Data for Monitoring Well Cluster 2

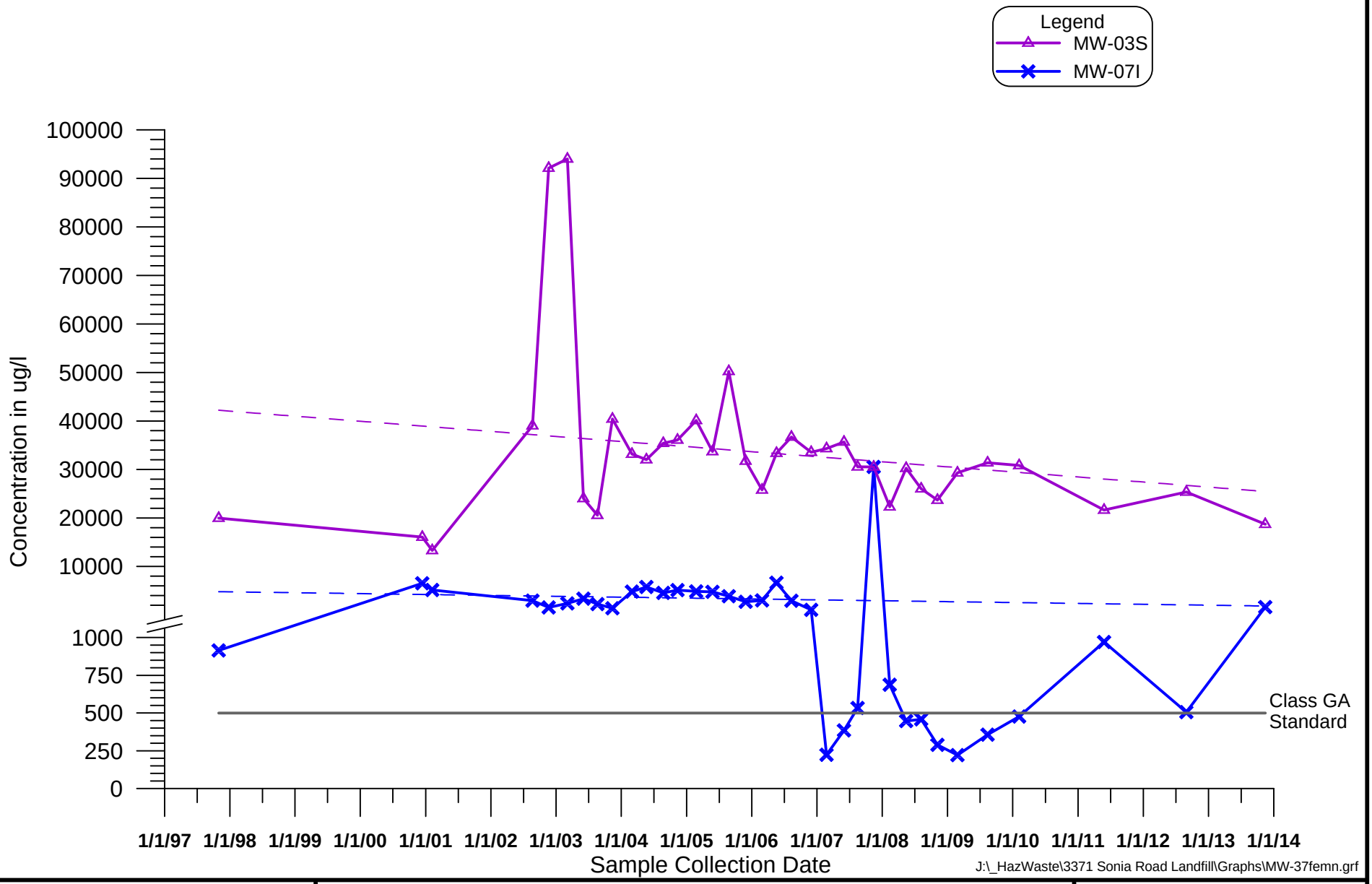
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Ammonia Data for Monitoring Wells 3S and 7I

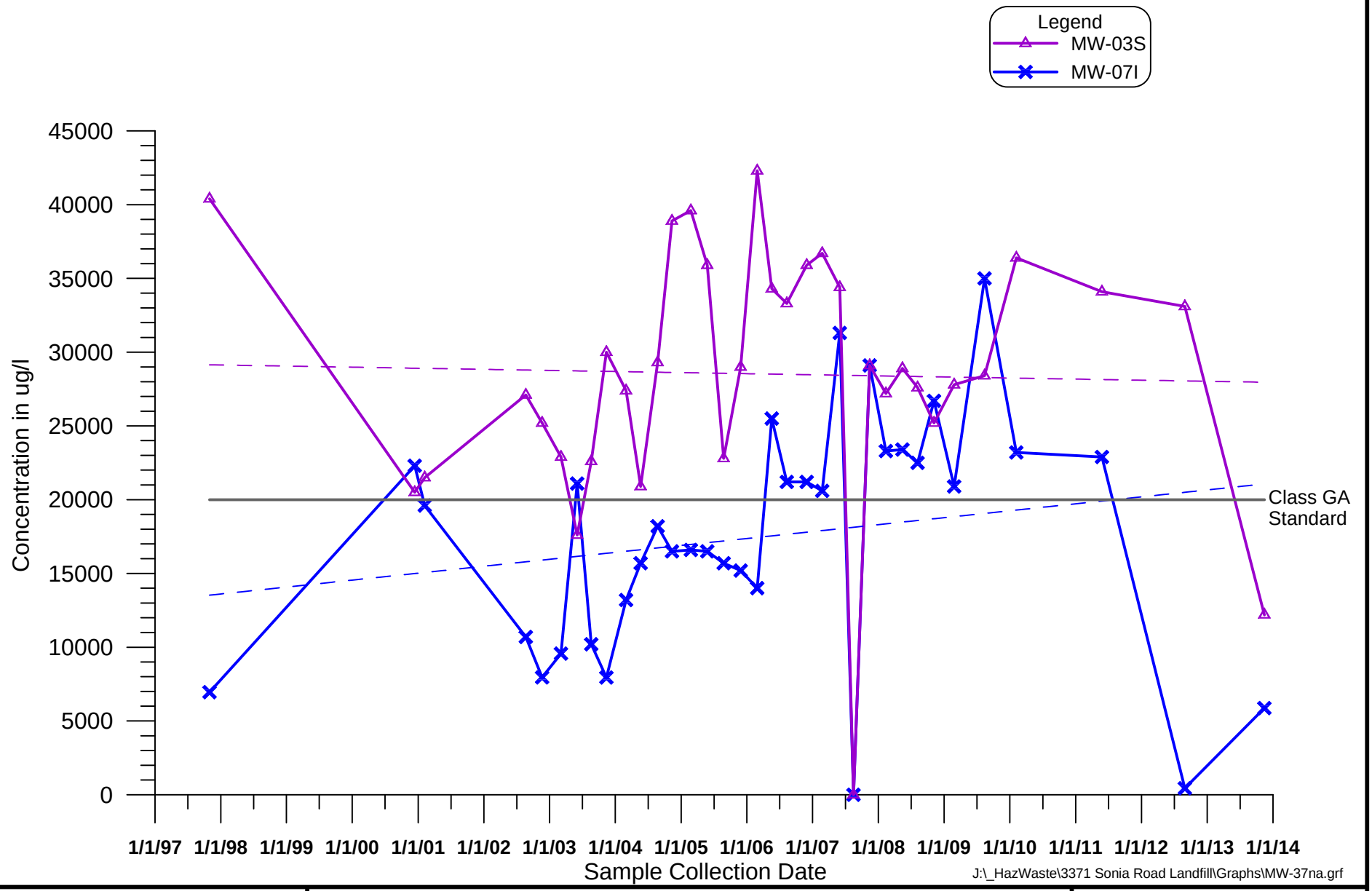
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Iron and Manganese Data for
Monitoring Wells 3S and 7I

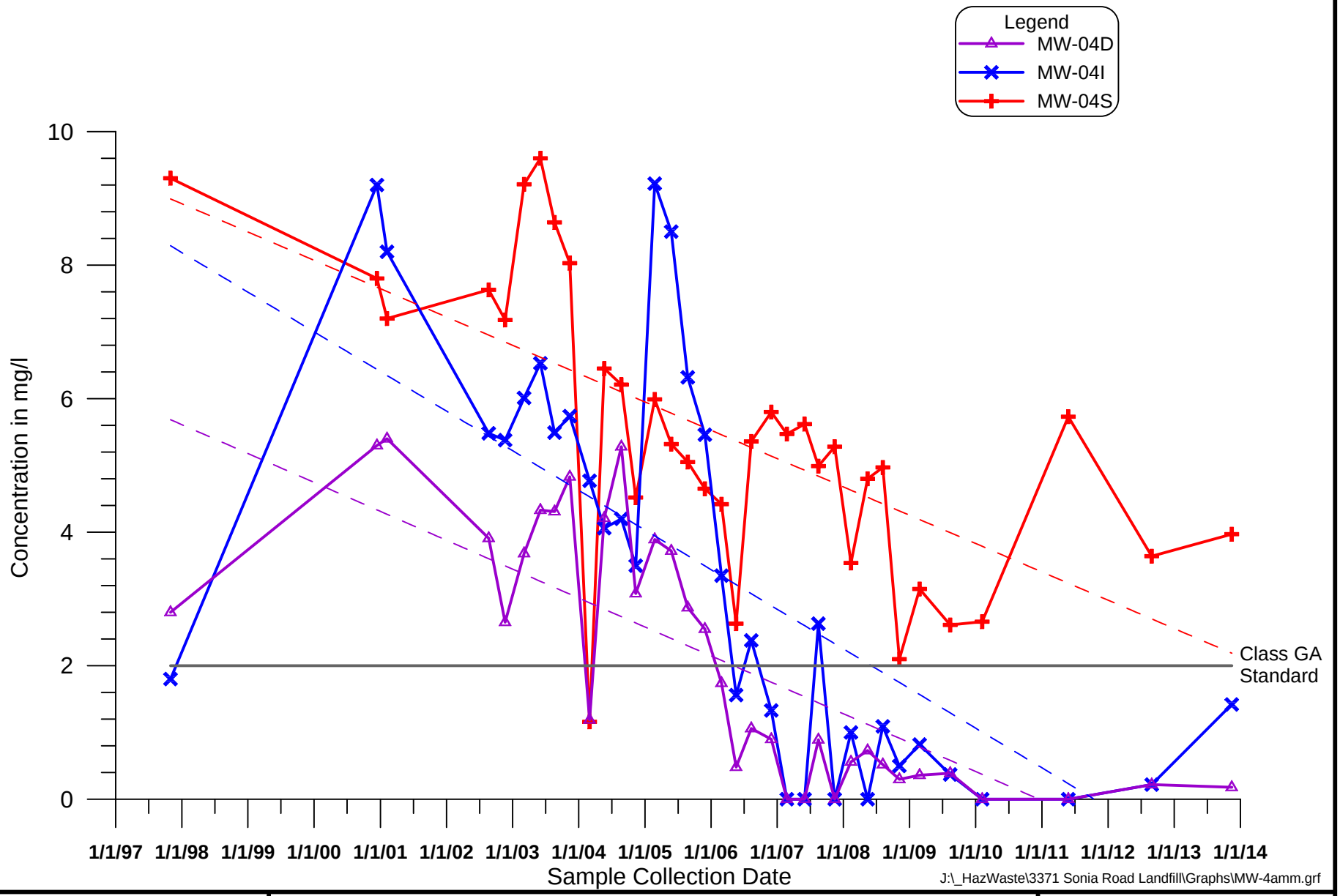
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sodium Data for Monitoring Wells 3S and 7I

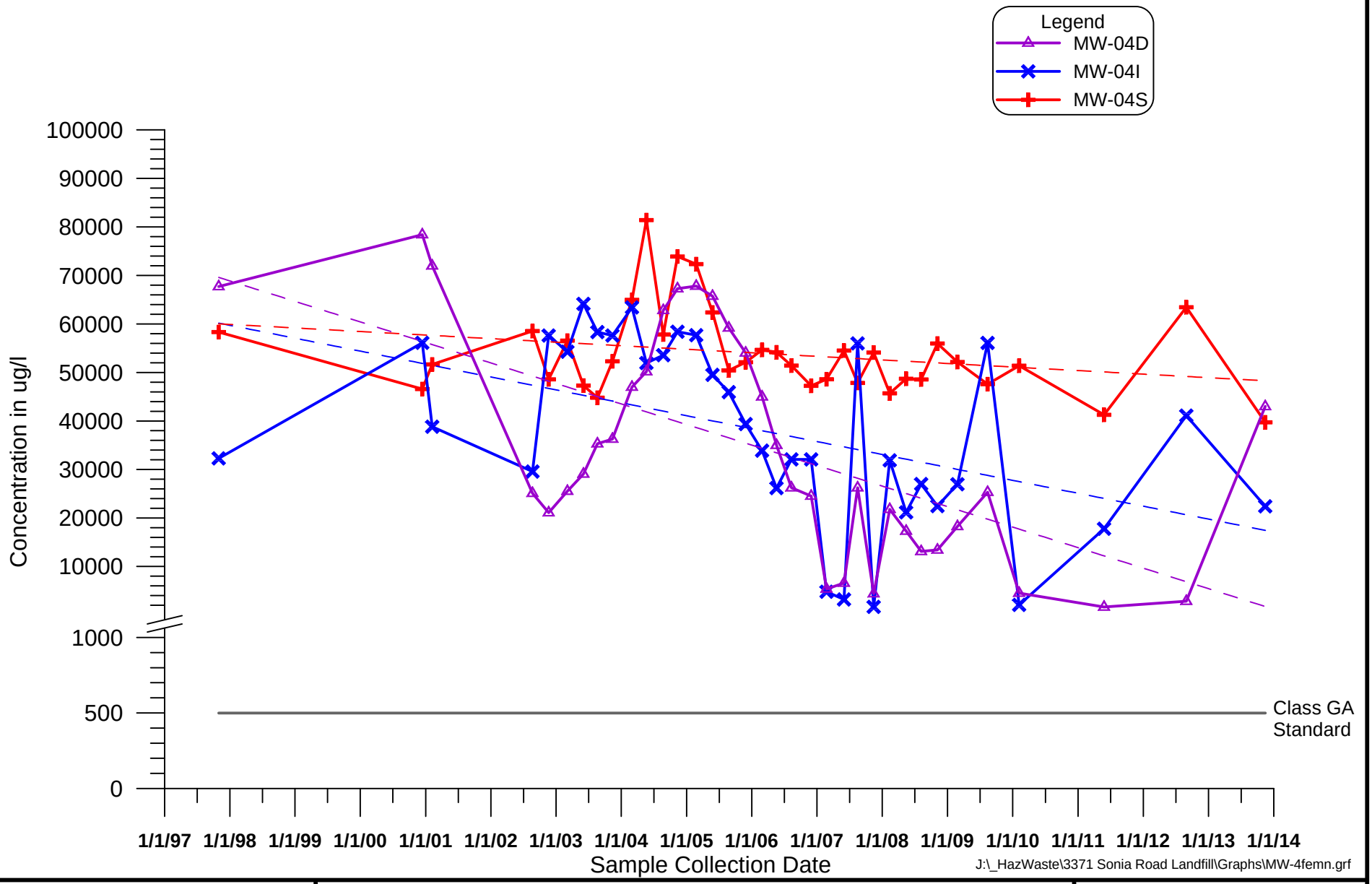
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Ammonia Data for Monitoring Well Cluster 4

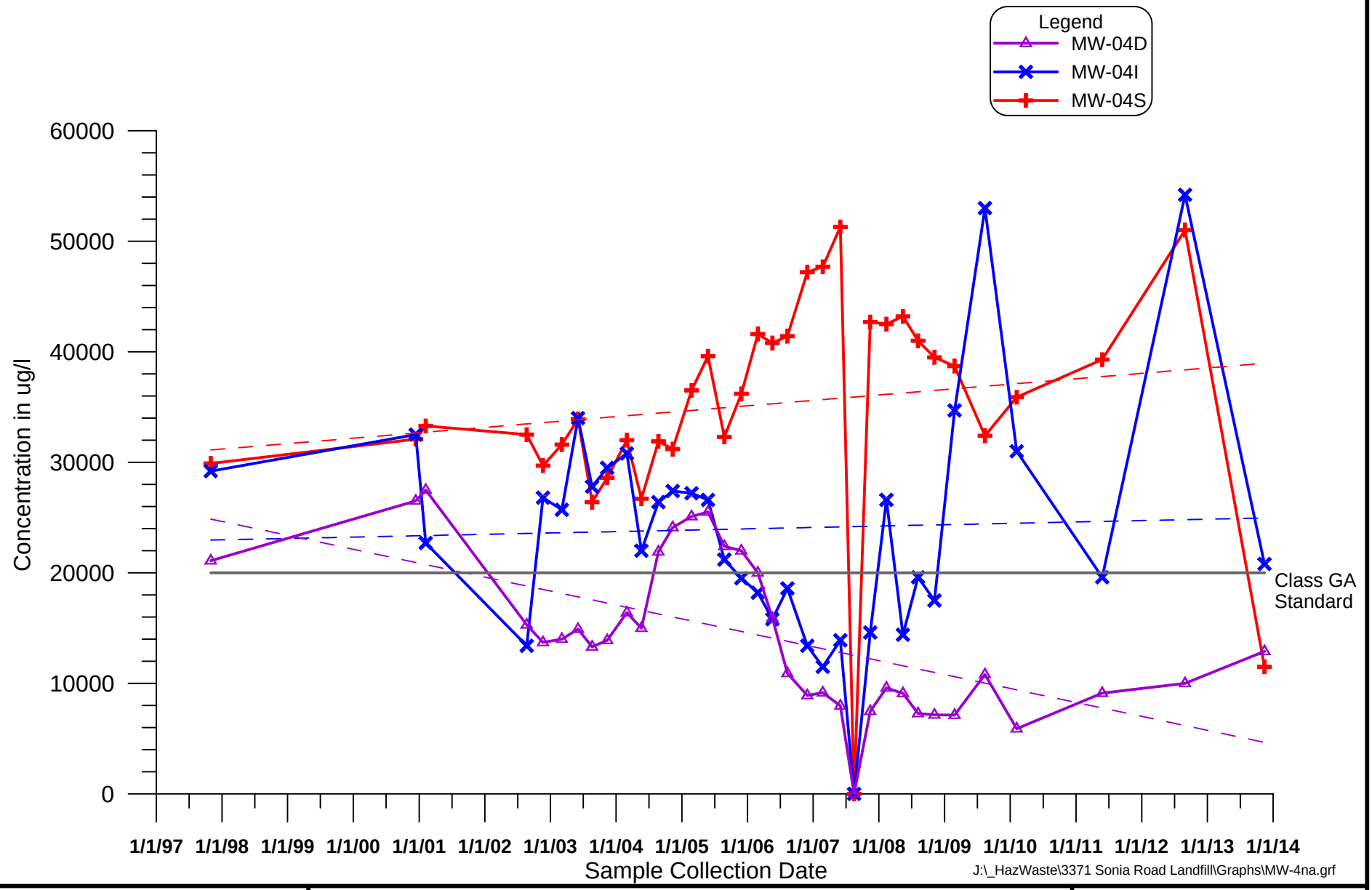
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sum of Iron and Manganses Data for
Monitoring Well Cluster 4

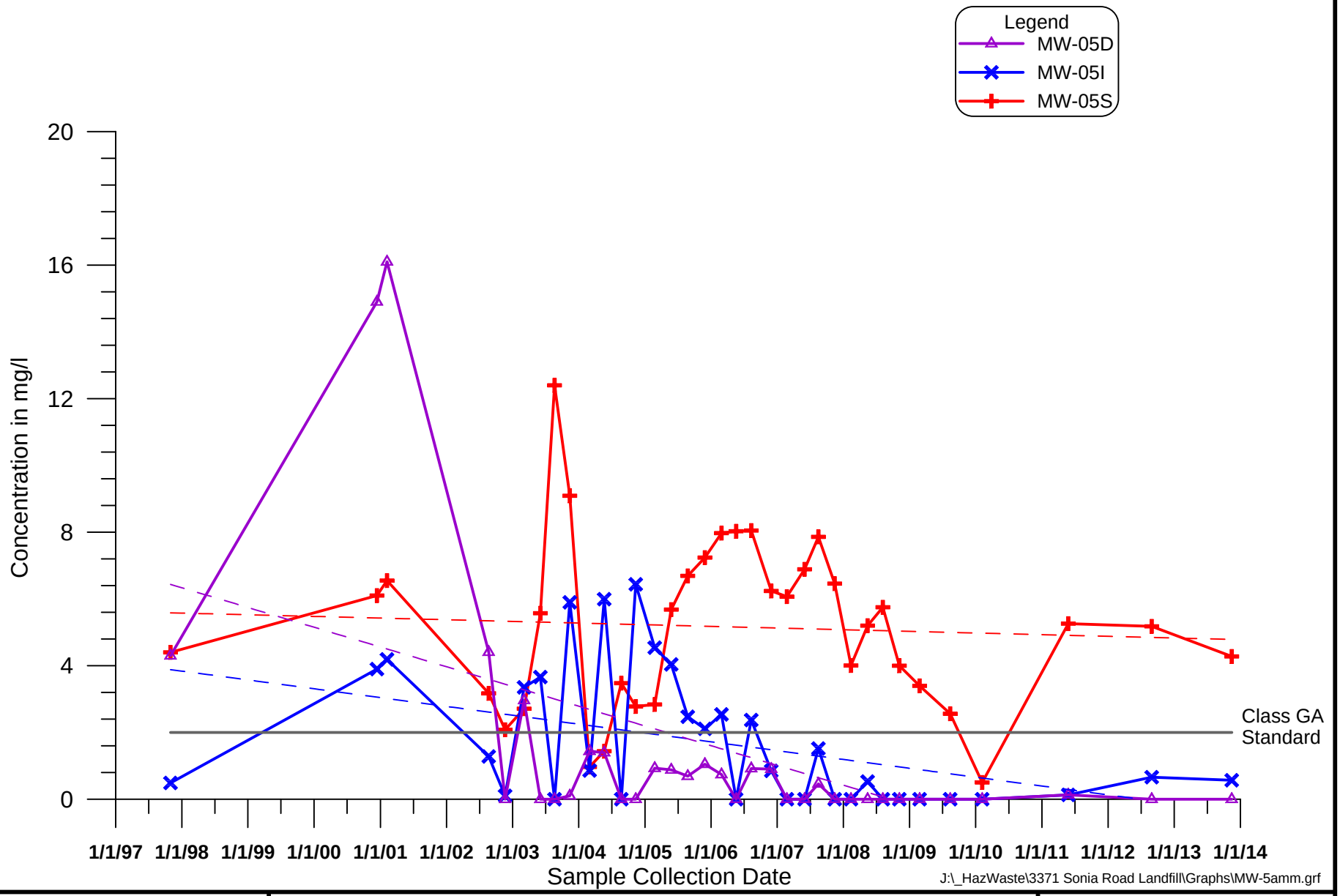
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sodium Data for Monitoring Well Cluster 4

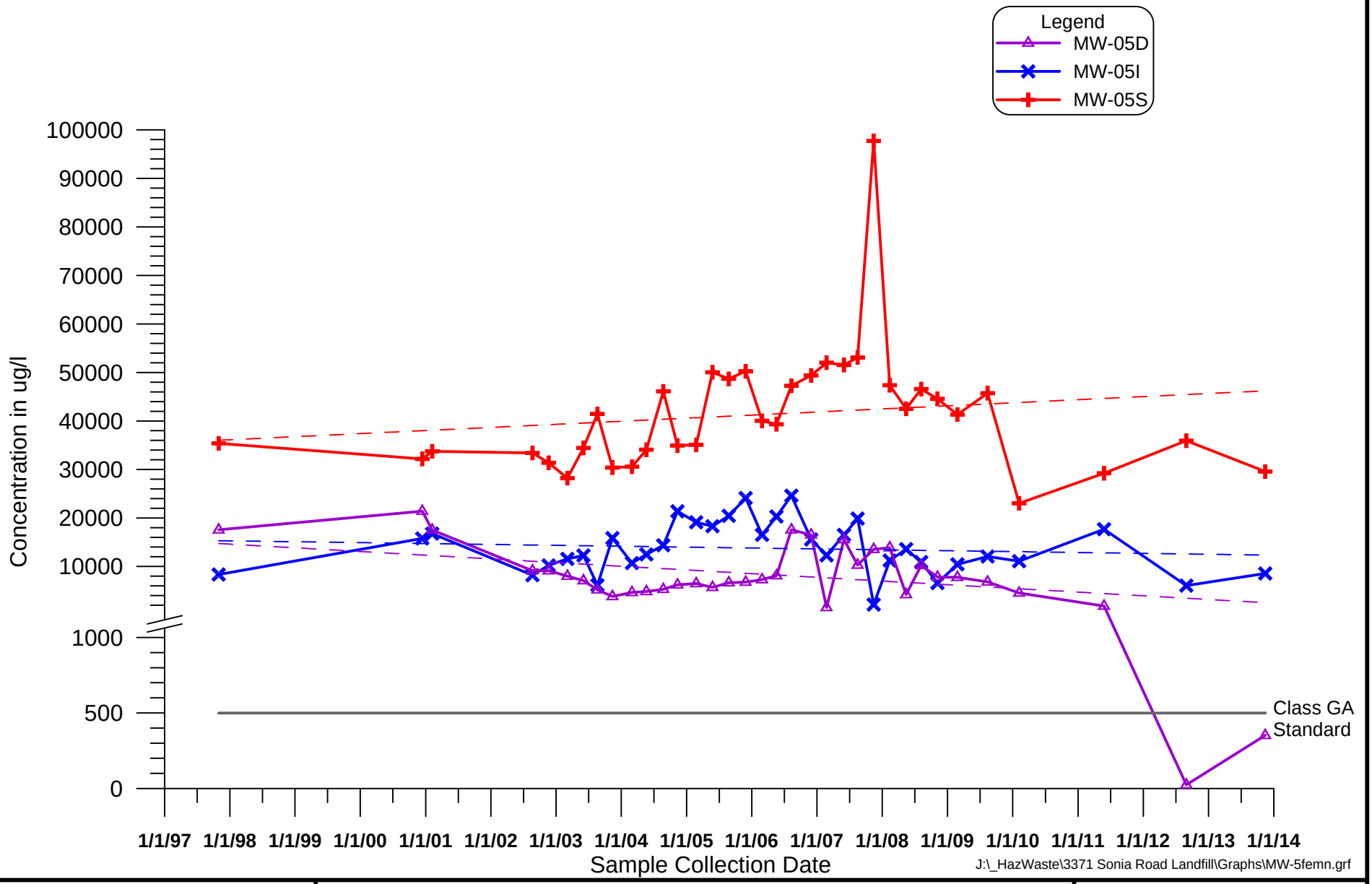
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Ammonia Data for Monitoring Well Cluster 5

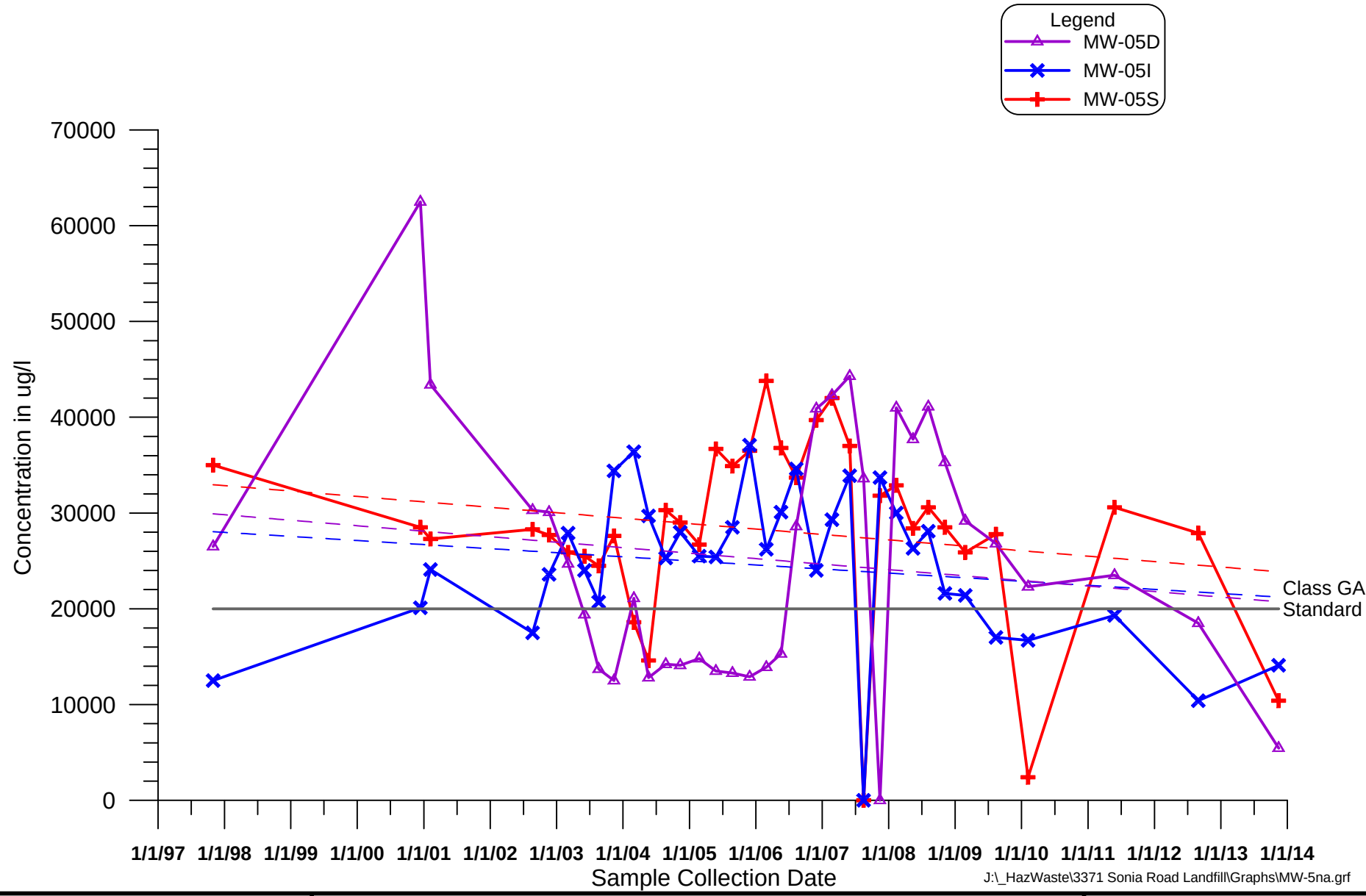
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sum of Iron and Manganses Data for
Monitoring Well Cluster 5

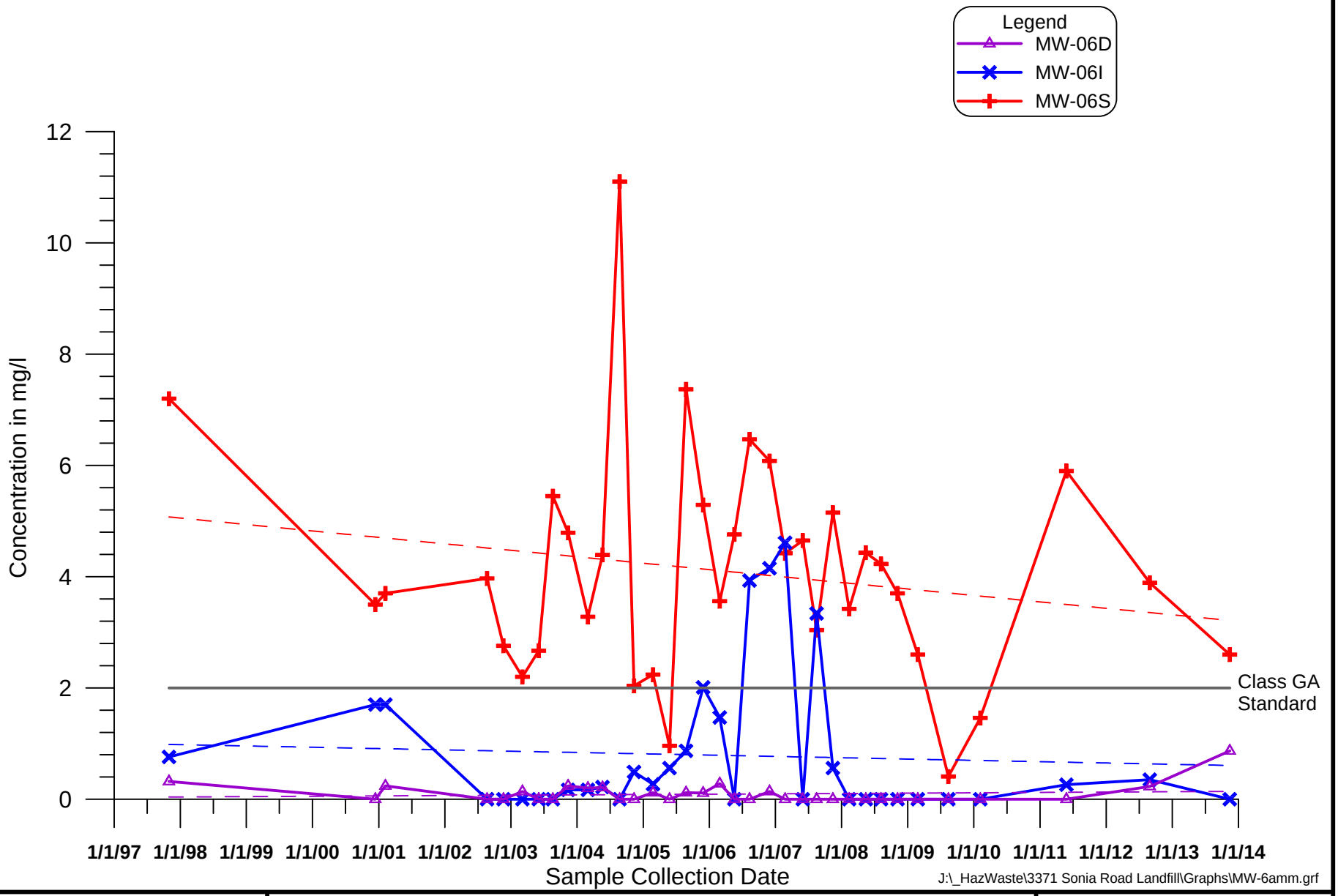
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sodium Data for Monitoring Well Cluster 5

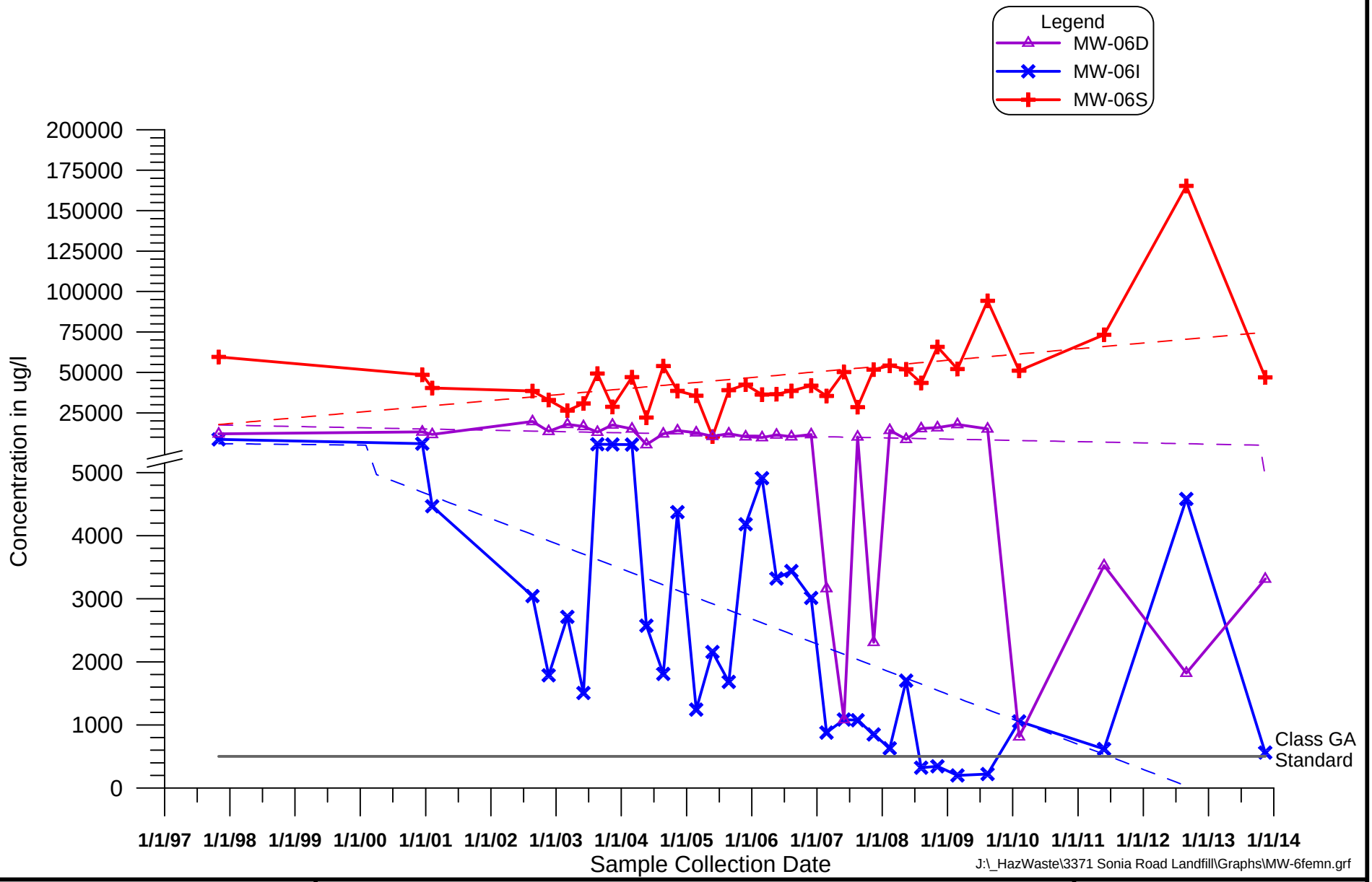
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Ammonia Data for Monitoring Well Cluster 6

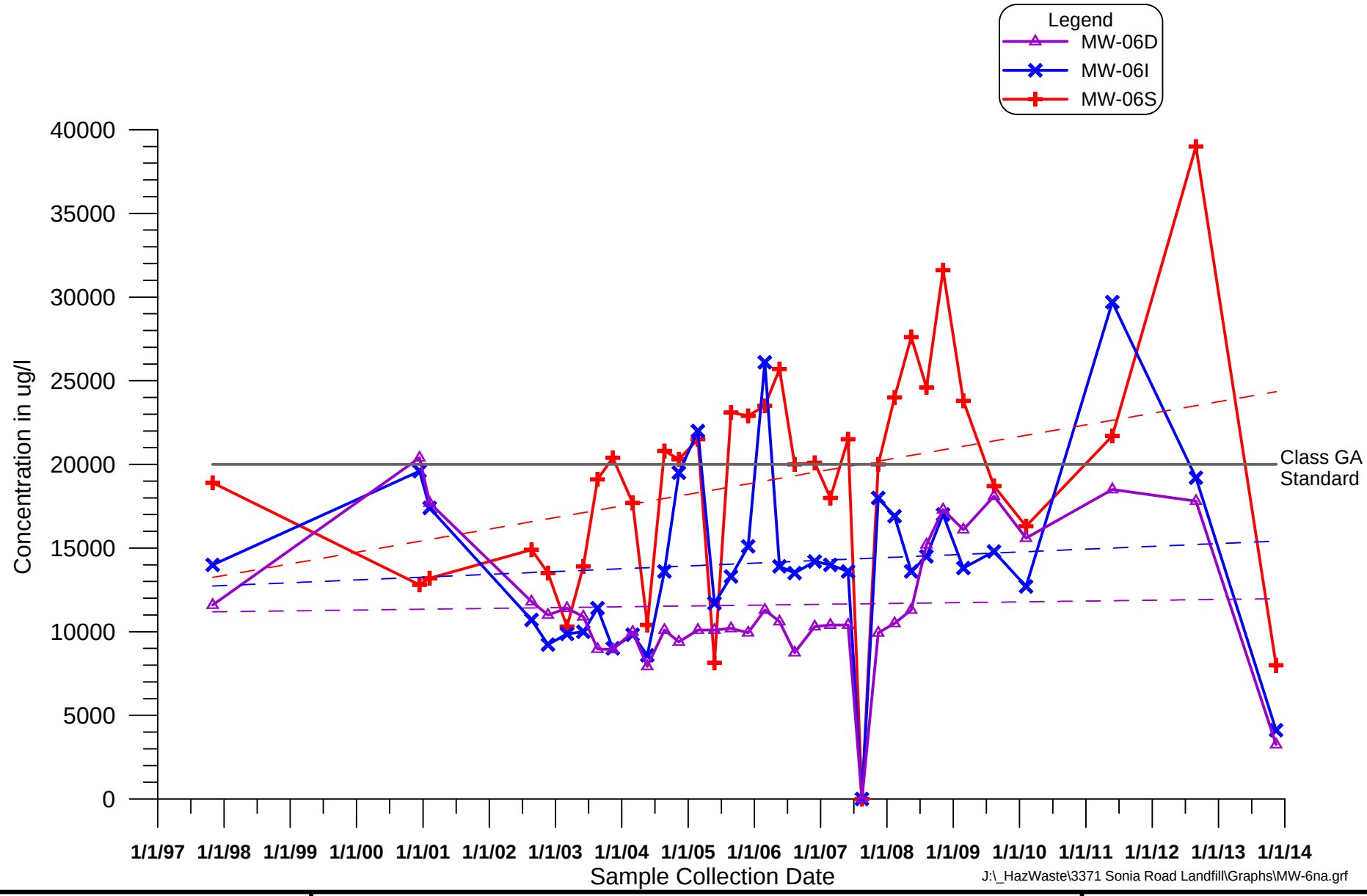
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sum of Iron and Manganses Data for
Monitoring Well Cluster 6

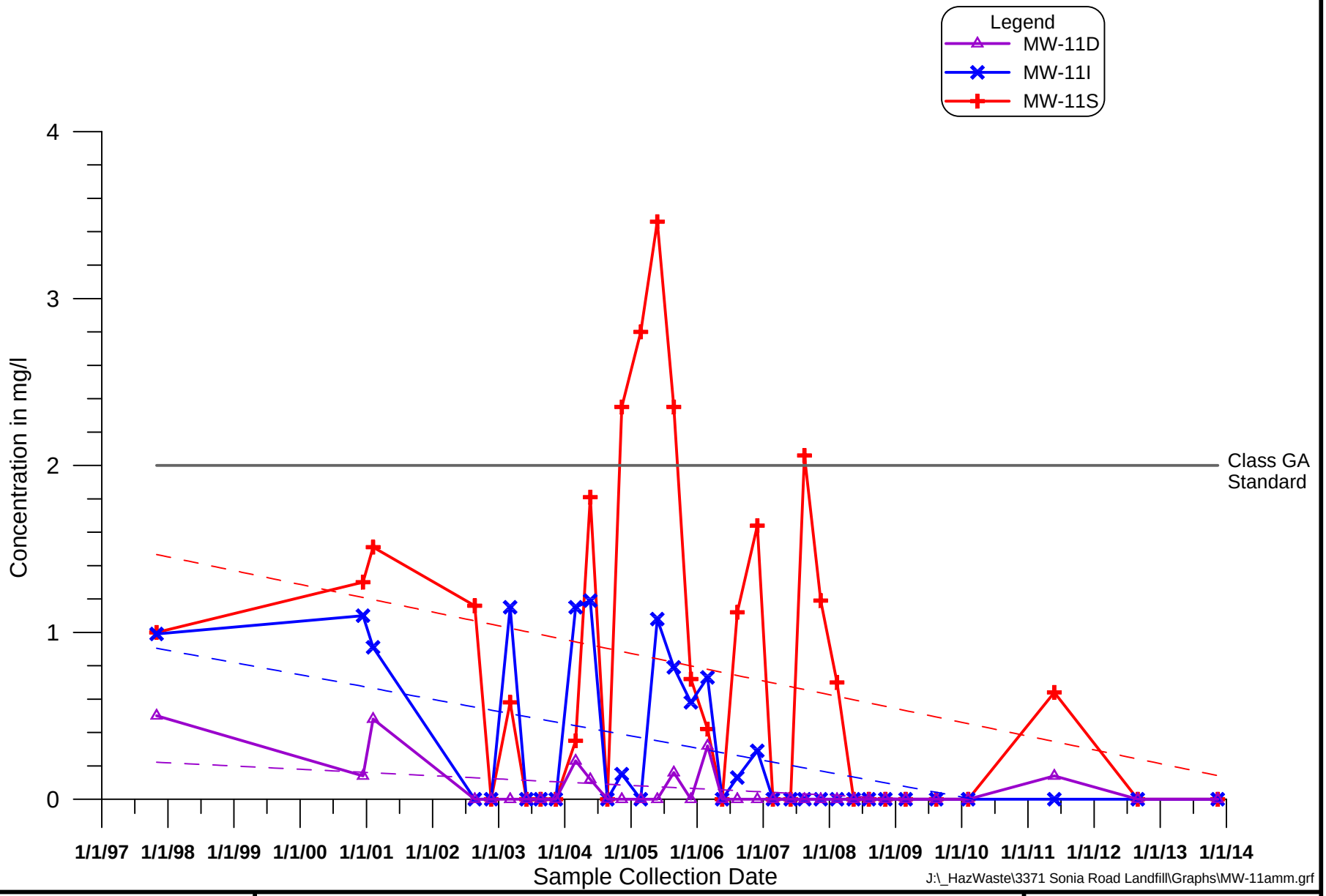
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sodium Data for Monitoring Well Cluster 6

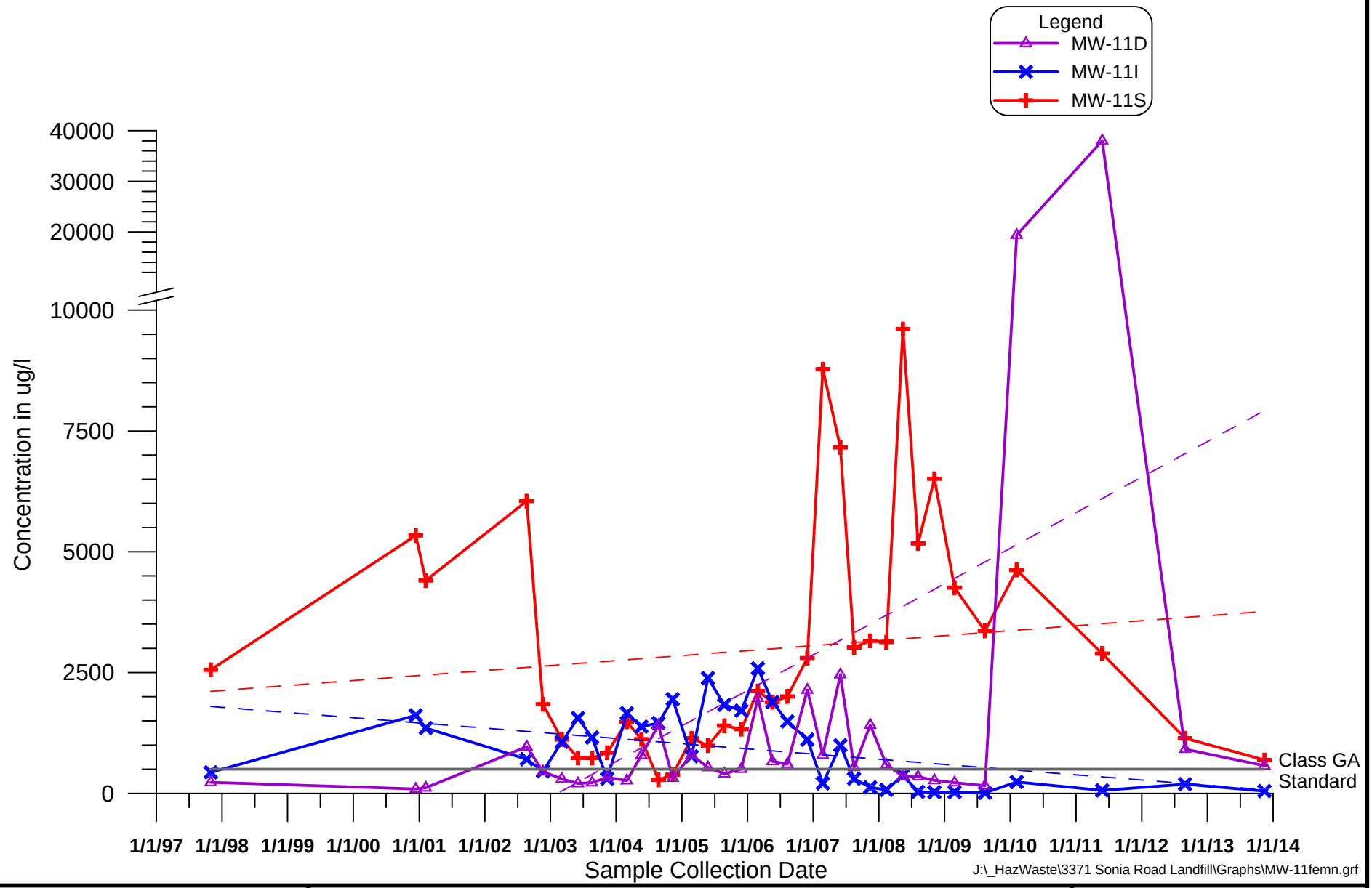
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Ammonia Data for Monitoring Well Cluster 11

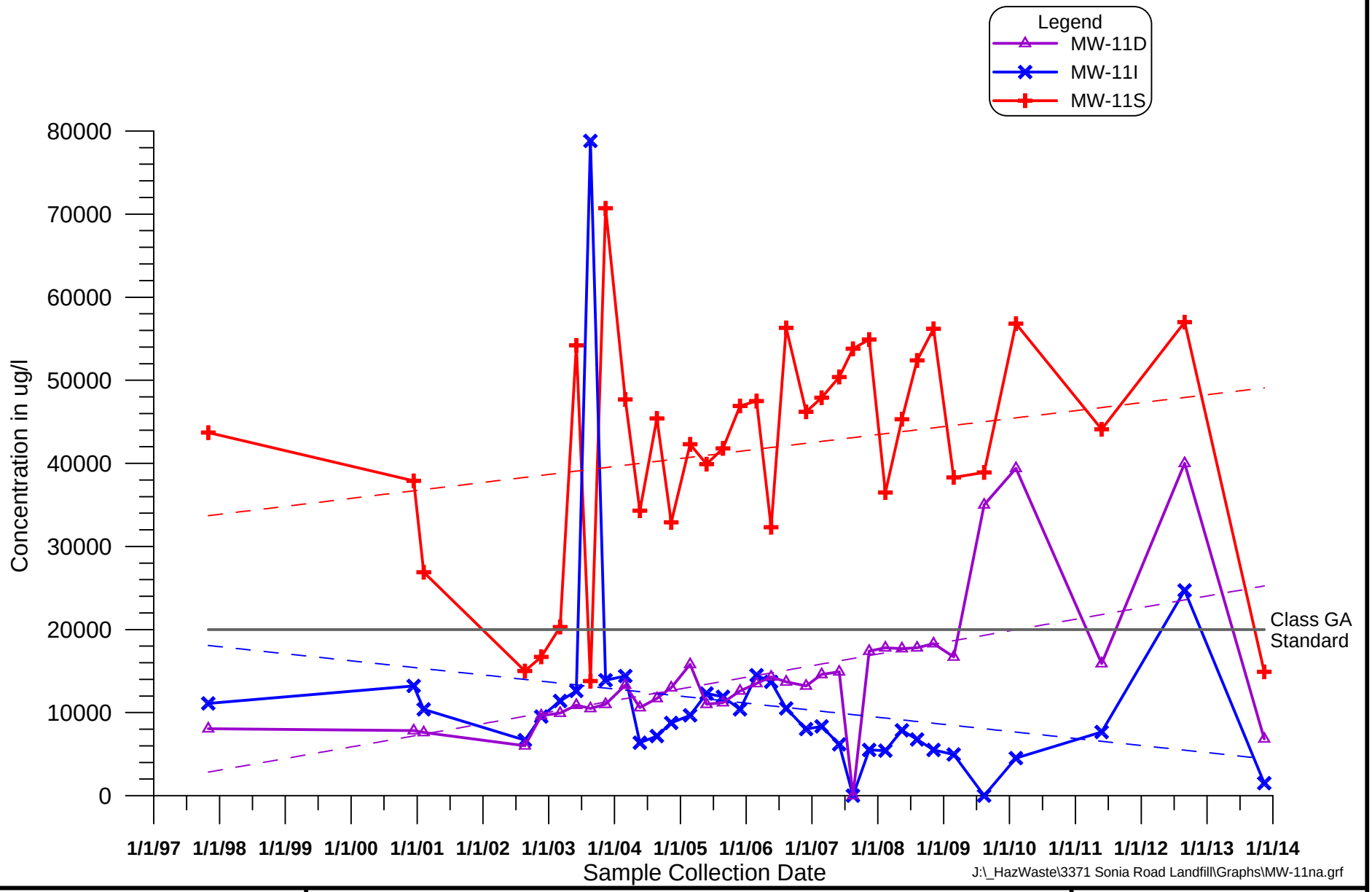
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sum of Iron and Manganses Data for
Monitoring Well Cluster 11

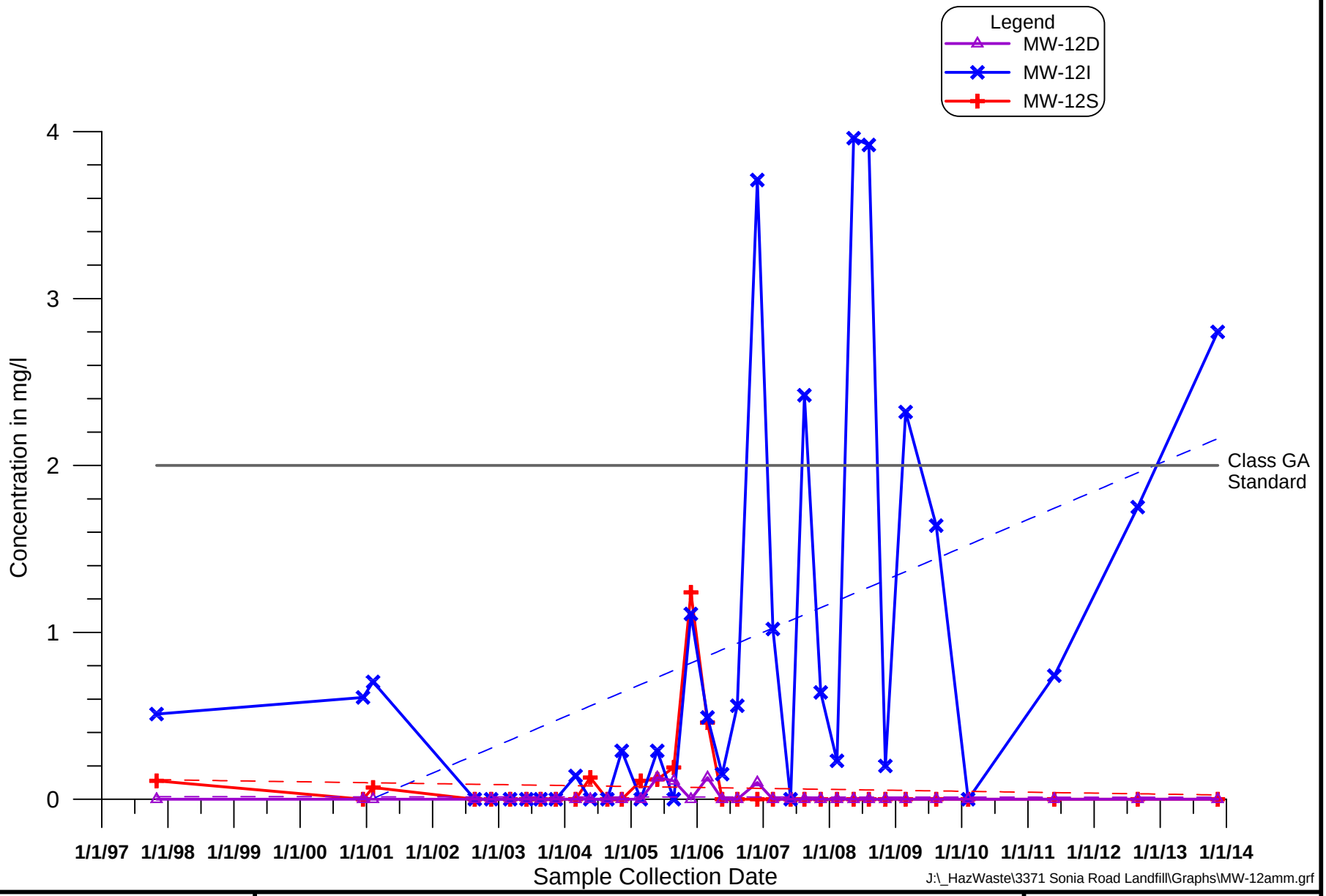
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sodium Data for Monitoring Well Cluster 11

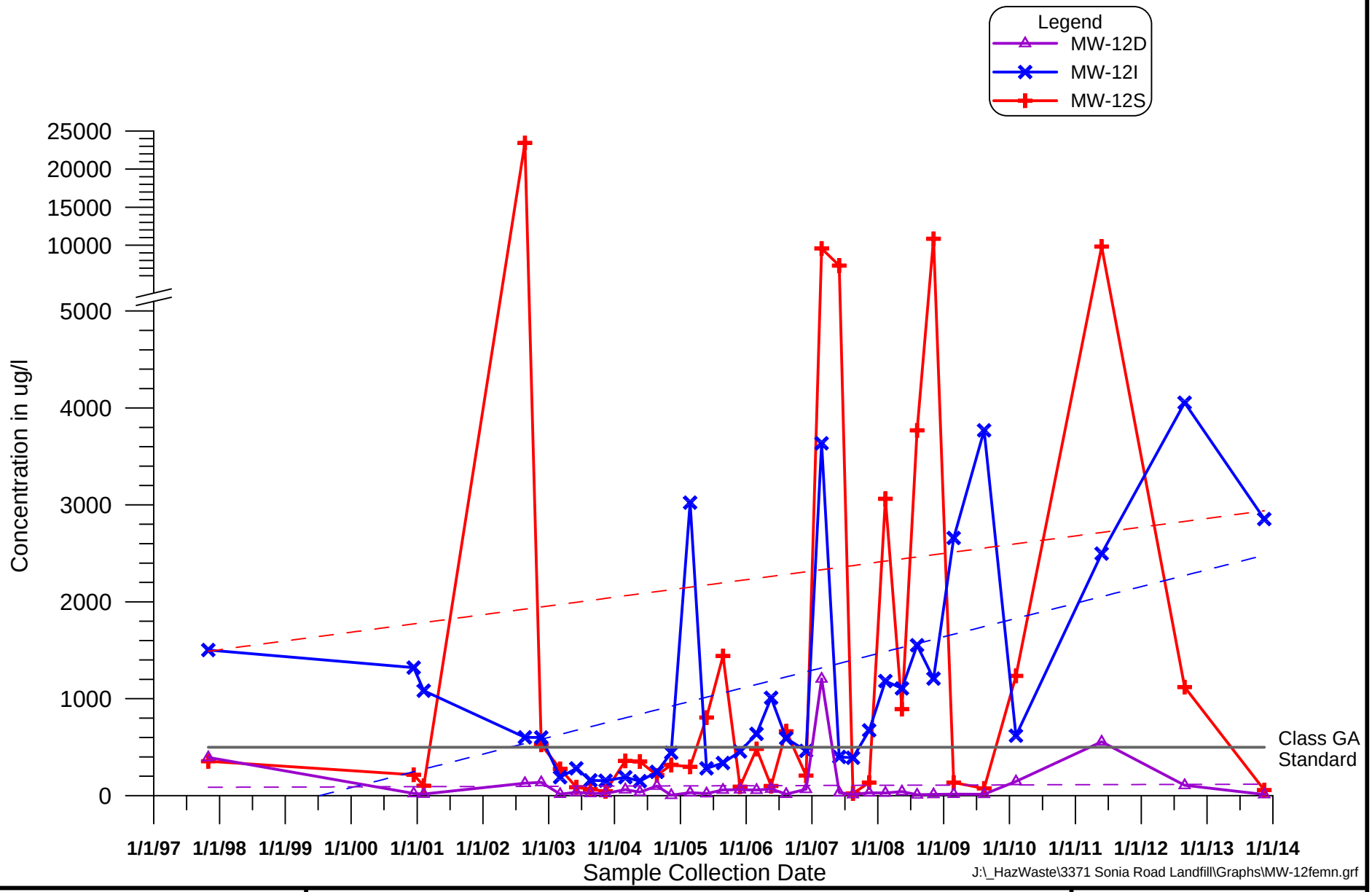
Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Ammonia Data for Monitoring Well Cluster 12

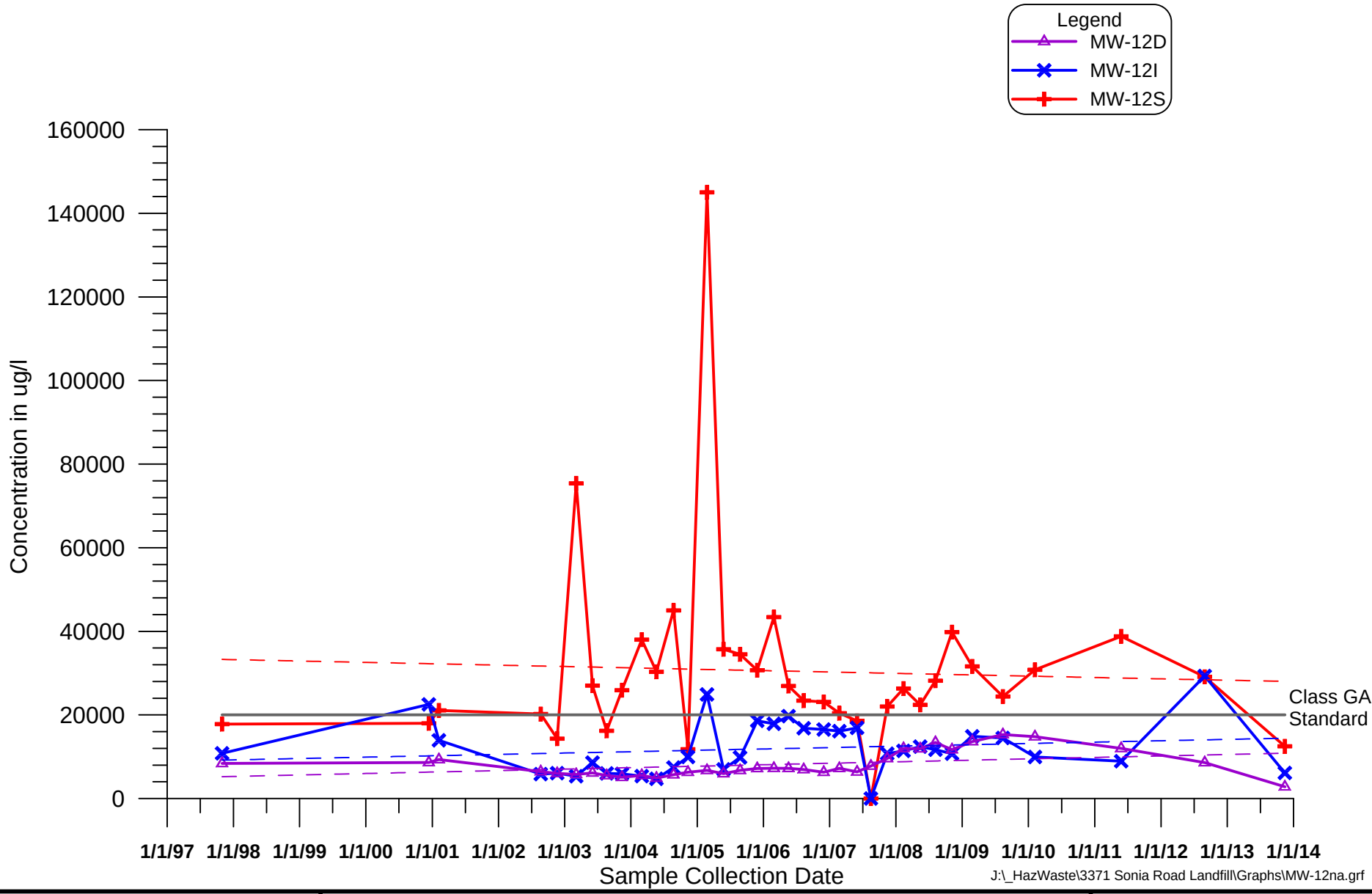
Appendix B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sum of Iron and Manganses Data for
Monitoring Well Cluster 12

Appendix
B



DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.

Sonia Road Landfill
Historical Sodium Data for Monitoring Well Cluster 12

Appendix
B

APPENDIX C

Data Validation Forms

DATA VALIDATION CHECKLIST

Project Name:	Sonia Road Landfill
Project Number:	3371
Sample Date(s):	November 12, 2013
Sample Team:	Keith Robins
Matrix/Number of Samples:	Water/ 8 Field Duplicates/ 1 Trip Blanks / 1 Field Blanks/ 0
Analyzing Laboratory:	American Analytical Laboratories, Farmingdale, NY; subcontracted BOD and color to Analytical Chemists, Farmingdale, NY and subcontracted TOC to Summit Environmental Technologies, Cuyahoga Falls, OH
Analyses:	Volatile Organic Compounds (VOCs): by SW846 8260C Metals: by SW846 Method E200.7, mercury by Method E245.1 and Cyanide by Method E335.4 General Chemistry: Hardness (E200.7), Bromide (MP.S44), Chloride (SM4500), Hexavalent Chromium (SM3500), Sulfate (ASTMD516-90 02) , Alkalinity (SM2320B), Total Dissolved Solids (SM 2540C), Ammonia (E350.1), Nitrate (L 10-107-4-1C), Total Kjeldahl Nitrogen (L 10-107-06-2), Phenolics (EPA 420.4) and Chemical Oxygen Demand (COD) (E410.4) by analyzed American Analytical Laboratories; Biochemical Oxygen Demand (BOD) (SM5210B), and Color (SM 2120B) analyzed by Analytical Chemists; and Total Organic Carbon (SM 5310B) analyzed by Summit Environmental Technologies
Laboratory Report No:	1311100 Date:11/22/2013

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. The monitoring program requires a 20% validation. A validation

was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of June 2008, or USEPA National Functional Guidelines of Inorganic Data Review, January 2010, method performance criteria, and Dvirka and Bartilucci Consulting Engineers, a Division of D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

Custody Numbers:1311100
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis				
				VOC	SVOC	PCB	MET	MISC
TRIP BLANK	1311100-01	11/12/13		X				
MW-01D	1311100-02	11/12/13		X			X	X
MW-01I	1311100-05	11/12/13		X			X	X
MW-01S	1311100-06	11/12/13		X			X	X
MW-02D	1311100-07	11/12/13		X			X	X
Blind Duplicate A	1311100-08	11/12/13	MW-02D	X			X	X
MW-02I	1311100-09	11/12/13		X			X	X
MW-07I	1311100-10	11/12/13		X			X	X
MW-06I	1311100-11	11/12/13		X			X	X
MW-06D	1311100-12	11/12/13		X			X	X

ORGANIC ANALYSE
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X	X		
B. Trip blanks		X	X		
C. Field blanks		X	X		
3. Matrix spike (MS) %R		X		X	
4. Matrix spike duplicate (MSD) %R		X		X	
5. MS/MSD precision (RPD)		X		X	
6. Laboratory control sample %R		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard responses		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD		X		X	
14. Tentatively Identified Compounds (TICs)					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:
Performance was acceptable with the following exception:

2A-C. Methylene chloride, toluene and trichloroethene were detected in the method blank. Ethylbenzene, m,p-xylene, o-xylene and methylene chloride were detected in the Trip Blank. Methylene chloride was detected in the Field Blank in package 1311107. Methylene chloride was qualified as non-detect (UB) in all samples.

INORGANIC ANALYSES
METALS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks		X	X		
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R					X
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X		X	
9. Post digestive spike sample %R					X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D					X
12. Total verse dissolved results					X
13. Field duplicates RPD		X		X	

%R - percent recovery %D - percent difference RPD - relative percent difference

Comments:
Performance was acceptable, with the following exception:

2A&B. Calcium, cyanide, iron and zinc were detected in the Field Blank. The following metals were qualified as non-detect (UB) for the following: iron in samples Blind Duplicate A, MW-01D, MW-01I, MW-02D, MW-06I and MW-07I; and zinc and cyanide in all samples.

INORGANIC ANALYSES
GENERAL CHEMISTRY

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Laboratory blanks		X		X	
B. Field blanks		X	X		
3. Standards %R					X
4. Laboratory spike %R		X		X	
5. Laboratory duplicate RPD					X
6. Matrix spike and matrix spike duplicate %R		X	X		
7. Total verse dissolved results					X
8. Field duplicates RPD		X		X	

%R percent recovery RPD - relative percent difference %D – percent difference
RSD - relative standard deviation

Comments:
Performance was acceptable with the following exceptions:

2A&B. Phenolics was detected in the initial blank, preparation blank and/or Field Blank. Phenolics were qualified as non-detect (UB) in all samples.

6. Nitrate %R was above QC limits in the matrix spike and matrix spike duplicate. Nitrate was qualified as estimated (J) in all samples except MW-01S.

DATA VALIDATION AND QUALIFICATION SUMMARY **Laboratory Numbers:1311100**

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
All samples	Methylene chloride	UB	Detected in the method blank, Trip Blank and Field Blank in package 1311107
Metals			
Blind Duplicate A, MW-01D, MW-01I, MW-02D, MW-06I and MW-07I	Iron	UB	Detected in the Field Blank
All samples	Zinc and cyanide	UB	Detected in the Field Blank
General Chemistry			
All samples	Phenolics	UB	Detected in the Field Blank
All samples except MW-01S	Nitrate	J	%R was above QC limits in the matrix spike and matrix spike duplicate

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 1/2/2014
VALIDATION PERFORMED BY SIGNATURE:	

DATA VALIDATION CHECKLIST

Project Name:	Sonia Road Landfill
Project Number:	3371
Sample Date(s):	November 13, 2013
Sample Team:	Keith Robins
Matrix/Number of Samples:	Water/ 8 Field Duplicates/ 0 Trip Blanks / 1 Field Blanks/ 1
Analyzing Laboratory:	American Analytical Laboratories, Farmingdale, NY; subcontracted BOD and color to Analytical Chemists, Farmingdale, NY and subcontracted TOC to Summit Environmental Technologies, Cuyahoga Falls, OH
Analyses:	Volatile Organic Compounds (VOCs): by SW846 8260C Metals: by SW846 Method E200.7, mercury by Method E245.1 and Cyanide by Method E335.4 General Chemistry: Hardness (E200.7), Bromide (MP.S44), Chloride (SM4500), Hexavalent Chromium (SM3500), Sulfate (ASTMD516-90 02) , Alkalinity (SM2320B), Total Dissolved Solids (SM 2540C), Ammonia (E350.1), Nitrate (L 10-107-4-1C), Total Kjeldahl Nitrogen (L 10-107-06-2), Phenolics (EPA 420.4) and Chemical Oxygen Demand (COD) (E410.4) by analyzed American Analytical Laboratories; Biochemical Oxygen Demand (BOD) (SM5210B), and Color (SM 2120B) analyzed by Analytical Chemists; and Total Organic Carbon (SM 5310B) analyzed by Summit Environmental Technologies
Laboratory Report No:	1311107 Date:11/26/2013

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. The monitoring program requires a 20% validation. A validation

was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of June 2008, or USEPA National Functional Guidelines of Inorganic Data Review, January 2010, method performance criteria, and Dvirka and Bartilucci Consulting Engineers, a Division of D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

Custody Numbers:1311107
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis				
				VOC	SVOC	PCB	MET	MISC
TRIP BLANK	1311107-01	11/13/13		X				
MW-06S	1311107-02	11/13/13		X			X	X
MW-04I	1311107-03	11/13/13		X			X	X
MW-04D	1311107-04	11/13/13		X			X	X
MW-03S	1311107-05	11/13/13		X			X	X
MW-05D	1311107-06	11/13/13		X			X	X
MW-05I	1311107-07	11/13/13		X			X	X
MW-05S	1311107-08	11/13/13		X			X	X
Field Blank	1311107-09	11/13/13		X			X	X
MW-04S	1311107-10	11/13/13		X			X	X

ORGANIC ANALYSES
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X	X		
B. Trip blanks		X	X		
C. Field blanks		X	X		
3. Matrix spike (MS) %R		X		X	
4. Matrix spike duplicate (MSD) %R		X		X	
5. MS/MSD precision (RPD)		X	X		
6. Laboratory control sample %R		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard responses		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X
14. Tentatively Identified Compounds (TICs)					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:
Performance was acceptable with the following exceptions:

2A-C. Methylene chloride was detected in the Trip, Field and method blanks. Acetone was detected in the method blank but not detected in the associated samples. Methylene chloride was qualified as non-detect (UB) in all samples.

5. Bromomethane %RPD was above QC limits in the MS/MSD. Bromomethane was not detected in the samples therefore, qualification of the data was not necessary.

INORGANIC ANALYSES
METALS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks		X	X		
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R					X
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					X
11. Serial dilution check %D					X
12. Total verse dissolved results					X
13. Field duplicates RPD					X

%R - percent recovery %D - percent difference RPD - relative percent difference

Comments:
Performance was acceptable, with the following exception:

2B. Calcium, cyanide, iron and zinc were detected in the Field Blank. The following metals were qualified as non-detect (UB) for the following: iron in sample MW-05D; and zinc and cyanide in all samples.

INORGANIC ANALYSES
GENERAL CHEMISTRY

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Laboratory blanks		X		X	
B. Field blanks		X	X		
3. Standards %R		X		X	
4. Laboratory spike %R		X		X	
5. Laboratory duplicate RPD					X
6. Matrix spike and matrix spike duplicate %R		X		X	
7. Total verse dissolved results					X
8. Field duplicates RPD					X

%R percent recovery RPD - relative percent difference %D – percent difference
RSD - relative standard deviation

Comments:
Performance was acceptable with the following exception:

2B. Phenolics were detected in the Field Blank. Phenolics were qualified as non-detect (UB) in all samples.

DATA VALIDATION AND QUALIFICATION SUMMARY

Laboratory Numbers:1311107

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
All samples	Methylene chloride	UB	Detected in the method blank, Trip Blank and Field Blank
Metals			
MW-05D	Iron	UB	Detected in the Field Blank
All samples	Zinc and cyanide	UB	Detected in the Field Blank
General Chemistry			
All samples	Phenolics	UB	Detected in the Field Blank

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 1/2/2014
VALIDATION PERFORMED BY SIGNATURE:	

DATA VALIDATION CHECKLIST

Project Name:	Sonia Road Landfill
Project Number:	3371
Sample Date(s):	November 14, 2013
Sample Team:	Keith Robins
Matrix/Number of Samples:	Water/ 6 Field Duplicates/ 0 Trip Blanks / 1 Field Blanks/ 0
Analyzing Laboratory:	American Analytical Laboratories, Farmingdale, NY; subcontracted BOD and color to Analytical Chemists, Farmingdale, NY and subcontracted TOC to Summit Environmental Technologies, Cuyahoga Falls, OH
Analyses:	Volatile Organic Compounds (VOCs): by SW846 8260C Metals: by SW846 Method E200.7, mercury by Method E245.1 and Cyanide by Method E335.4 General Chemistry: Hardness (E200.7), Bromide (MP.S44), Chloride (SM4500), Hexavalent Chromium (SM3500), Sulfate (ASTMD516-90 02) , Alkalinity (SM2320B), Total Dissolved Solids (SM 2540C), Ammonia (E350.1), Nitrate (L 10-107-4-1C), Total Kjeldahl Nitrogen (L 10-107-06-2), Phenolics (EPA 420.4) and Chemical Oxygen Demand (COD) (E410.4) by analyzed American Analytical Laboratories; Biochemical Oxygen Demand (BOD) (SM5210B), and Color (SM 2120B) analyzed by Analytical Chemists; and Total Organic Carbon (SM 5310B) analyzed by Summit Environmental Technologies
Laboratory Report No:	1311114 Date:11/26/2013

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. The monitoring program requires a 20% validation. A validation

was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of June 2008, or USEPA National Functional Guidelines of Inorganic Data Review, January 2010, method performance criteria, and Dvirka and Bartilucci Consulting Engineers, a Division of D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

Custody Numbers:1311114
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis				
				VOC	SVOC	PCB	MET	MISC
TRIP BLANK	1311114-01	11/14/13		X				
MW-11I	1311114-02	11/14/13		X			X	X
MW-11S	1311114-03	11/14/13		X			X	X
MW-11D	1311114-04	11/14/13		X			X	X
MW-12D	1311114-05	11/14/13		X			X	X
MW-12I	1311114-06	11/14/13		X			X	X
MW-12S	1311114-07	11/14/13		X			X	X

ORGANIC ANALYSE
VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X	X		
B. Trip blanks		X	X		
C. Field blanks		X	X		
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory control sample %R		X		X	
7. Surrogate spike recoveries		X		X	
8. Instrument performance check		X		X	
9. Internal standard responses		X		X	
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD					X
14. Tentatively Identified Compounds (TICs)					X

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:
Performance was acceptable with the following exception:

2A-C. Acetone and methylene chloride were detected in the Trip Blank and method blank. Methylene chloride was detected in the method blank and Field Blank in package 1311107. Methylene chloride and acetone were qualified as non-detect (UB) in all samples.

INORGANIC ANALYSES
METALS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X			
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks		X	X		
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R					X
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					X
11. Serial dilution check %D					X
12. Total verse dissolved results					X
13. Field duplicates RPD					X

%R - percent recovery %D - percent difference RPD - relative percent difference

Comments:
Performance was acceptable, with the following exceptions:

2A&B. Calcium, cyanide, iron and zinc were Field Blank. The following metals were qualified as non-detect (UB) for the following: iron in sample MW-11I, MW-11S, MW-12D; MW-12I and MW-12S and zinc and cyanide in all samples.

INORGANIC ANALYSES
GENERAL CHEMISTRY

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Laboratory blanks		X		X	
B. Field blanks		X	X		
3. Standards %R		X		X	
4. Laboratory spike %R		X		X	
5. Laboratory duplicate RPD					X
6. Matrix spike and matrix spike duplicate %R					X
7. Total verse dissolved results					X
8. Field duplicates RPD					X

%R percent recovery RPD - relative percent difference %D – percent difference
RSD - relative standard deviation

Comments:
Performance was acceptable with the following exception:

2A. Phenolics were detected in the Field Blank. Phenolics were qualified as non-detect (UB) in all samples.

DATA VALIDATION AND QUALIFICATION SUMMARY

Laboratory Numbers:1311114

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
All samples	Methylene chloride and acetone	UB	Detected in the method blank, Trip Blank and Field Blank
Metals			
MW-11I, MW-11S, MW-12D; MW-12I and MW-12S	Iron	UB	Detected in the Field Blank
All samples	Zinc and cyanide	UB	Detected in the Field Blank
General Chemistry			
All samples	Phenolics	UB	Detected in the Field Blank

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 1/2/2014
VALIDATION PERFORMED BY SIGNATURE:	