DRAFT

PERIODIC REVIEW REPORT

for

Reporting Period March 31, 2024 to March 31, 2025

TOWN OF ISLIP

SONIA ROAD LANDFILL

BRENTWOOD, NEW YORK

SITE ID NO. 152013

Prepared for:

TOWN OF ISLIP

ISLIP RESOURCE RECOVERY AGENCY

ISLIP, NEW YORK

Prepared by:

D&B ENGINEERS AND ARCHITECTS, D.P.C.

WOODBURY, NEW YORK

January 2026

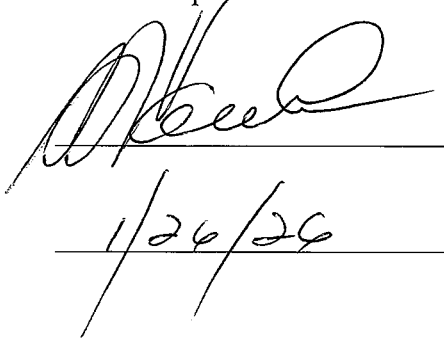
PERIODIC REVIEW REPORT
CERTIFICATION
SONIA ROAD LANDFILL
BRENTWOOD, NEW YORK

For each institutional or engineering control identified for the Site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the Site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program and generally accepted engineering practices; and
- The information presented in this report is accurate and complete.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Anthony J. Varrichio, of 401 Main Street, Islip, New York 11751, am certifying as Owner's/Remedial Party's Designated Site for the Site."

I certify that the New York State Education Department has granted a Certificate of Authorization to provide Professional Engineering services to the firm that prepared this Periodic Review Report.



_____ P.E.

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PERIODIC REVIEW REPORT
SONIA ROAD LANDFILL
BRENTWOOD, NEW YORK

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EXECUTIVE SUMMARY

The purpose of this Periodic Review Report (PRR) is to document the implementation of and compliance with the Post Closure Monitoring and Maintenance Program requirements for the Sonia Road Landfill Complex (Site ID NO.152013). This serves as the third PPR prepared for this Site and covers the period March 2024 to March 2025.

The Sonia Road Landfill site (Landfill) is an approximately 40-acre capped and closed inactive municipal solid waste landfill owned by the Town of Islip. Landfilling occurred between 1965 and 1977, with the most active period of landfilling occurring between 1965 and 1974. The Record of Decision (ROD) issued by the New York State Department of Environmental Conservation (NYSDEC) in July 1998, selected capping, landfill gas control, a long-term monitoring program and institutional controls as the selected remedy.

The Sonia Road Landfill was capped in the fall of 2000. 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 Landfill. In May 2011, the NYSDEC, with concurrence from the New York State Department of Health (NYSDOH) changed the Landfill classification from a Class 2 site to Class 4 site. In that decision document, the NYSDEC stated, and the NYSDOH concurred, that the Landfill no longer presents a significant threat to public health and/or the environment. The Landfill currently has a secondary use as a storage yard for new automobiles.

The Landfill has been managed to date under an active long-term site management program in accordance with the NYSDEC-approved Post Closure Monitoring and Maintenance Plan, Volumes 1 through 4 (PCMMP). The results in the Post Closure Groundwater Monitoring Reports since 2002 have shown that the remedial measures have been effective in meeting the remedial action objectives for both groundwater and landfill gas.

The Landfill cover systems are adequate and operating as designed. However, subsidence associated with the natural decomposition of the waste mass has been observed. In addition, slope movement, settlement, soil erosion and ponding, and stressed vegetation and undesirable

vegetative growth has been observed at select locations. In addition, several monitoring wells (MW-3D, MW-11S and MW-14I) need to be resurveyed. D&B submitted a Corrective Measures Report to the NYSDEC on February 16, 2024. In a letter by the NYSDEC dated March 25, 2024, it was requested that new J-plugs be installed at monitoring wells MW-1D and MW-11I, monitoring wells MW-03D, MW-11S, and MW-14I be resurveyed, and the dead tree be removed from the southern fence line. In addition, the NYSDEC's March 25, 2024 letter requested an inspection be performed to confirm that the slope movement, settlement, soil erosion, and ponding observed throughout the Site, as well as undesirable vegetative growth observed on the Site cover and Recharge Basins No. 1 and No.2 are not impacting the ability of the Engineering Controls to operate as designed. These activities were completed in the fourth quarter of 2024. In addition, the portion of the fence damaged as a result of a car accident (Grid H1) has been repaired.

During this reporting period 19 of 22 monitoring wells were sampled during the January 2025 sampling event, including a round of synoptic water level measurements, which are currently conducted on a 15-month rotating schedule. Upgradient groundwater monitoring well cluster MW-11 (MW-11S, MW-11I, MW-11D) was not accessible due to snow and ice. Two leachate indicators (ammonia, total phenols) exceeded NYSDEC Class GA groundwater standards with ammonia (3 of 19 wells) detected at a maximum concentration of 4.4 mg/l in downgradient monitoring well MW-06S and total phenols (4 of 19 wells) detected at a maximum concentration of 0.024 J mg/l at downgradient monitoring well MW-5D. In addition, ten inorganic parameters (antimony, cadmium, total chromium, iron, manganese, nickel, selenium, sodium, thallium, and total combined iron plus manganese) were detected in one or more monitoring wells at concentrations exceeding NYSDEC Class GA groundwater standards or guidance values. For the 19 wells sampled during the January 2025 sampling event, volatile organic compounds (VOCs) were not detected in 15 of the 19 monitoring wells sampled and of the four detectable concentrations, none were detected above NYSDEC Class GA groundwater standards.

Landfill gas monitoring is performed monthly at 17 landfill gas monitoring wells located around the perimeter of the Landfill and at the Landfill Gas Management Compound (blower location). Methane was not detected in any of the 17 landfill gas monitoring wells in 10 of 12

monitoring events and at relatively low concentrations at the blower. Methane was detected at two landfill gas monitoring wells in February 2025 and at four landfill gas monitoring wells in March 2025 at relatively low concentrations. Blower reading for percent methane ranged from 0.0 to 6.4, with an average over the reporting period of 5.42 percent.

In addition, prior to collecting synoptic water level measurements as part of the 15-month rotating groundwater monitoring activities, volatile organic vapors were not detected in the headspace of the 32 groundwater monitoring wells and combustible gas readings for all groundwater monitoring wells were recorded at 0% of the Lower Explosive Limit (LEL). As indicated above, upgradient groundwater monitoring well cluster MW-11 (MW-11S, MW-11I, MW-11D) was not accessible due to snow and ice. These results are consistent with historical monitoring results. At this time, it is recommended to continue groundwater sampling scheduled for the second quarter of 2026, monitoring and Site inspections in accordance with the requirements set forth in the PCMMP. It is also recommended to continue the current monthly landfill gas monitoring program.

Site management activities and reporting will continue for the Site while the remedy relies on institutional controls (ICs) and engineering controls (ECs) to be protective, and until all remedial action objectives (RAOs) for the Site and the criteria for site close out in DER-10 have been met. The submittal of the Periodic Review Report (PRR) shall be completed on an annual basis until groundwater monitoring data demonstrates consistent and sustainable water quality improvement as determined in consultation with the NYSDEC.

1.0 INTRODUCTION

The purpose of this Periodic Review Report (PRR) is to document the implementation of and compliance with the Post Closure Monitoring and Maintenance Program requirements for the Sonia Road Landfill Complex (Site ID NO.152013). A site location map is presented on **Figure 1-1**. The reporting period for this PRR is from March 31, 2024 to March 31, 2025. In addition, portions of this report incorporate pertinent historical project background information and monitoring data, as appropriate.

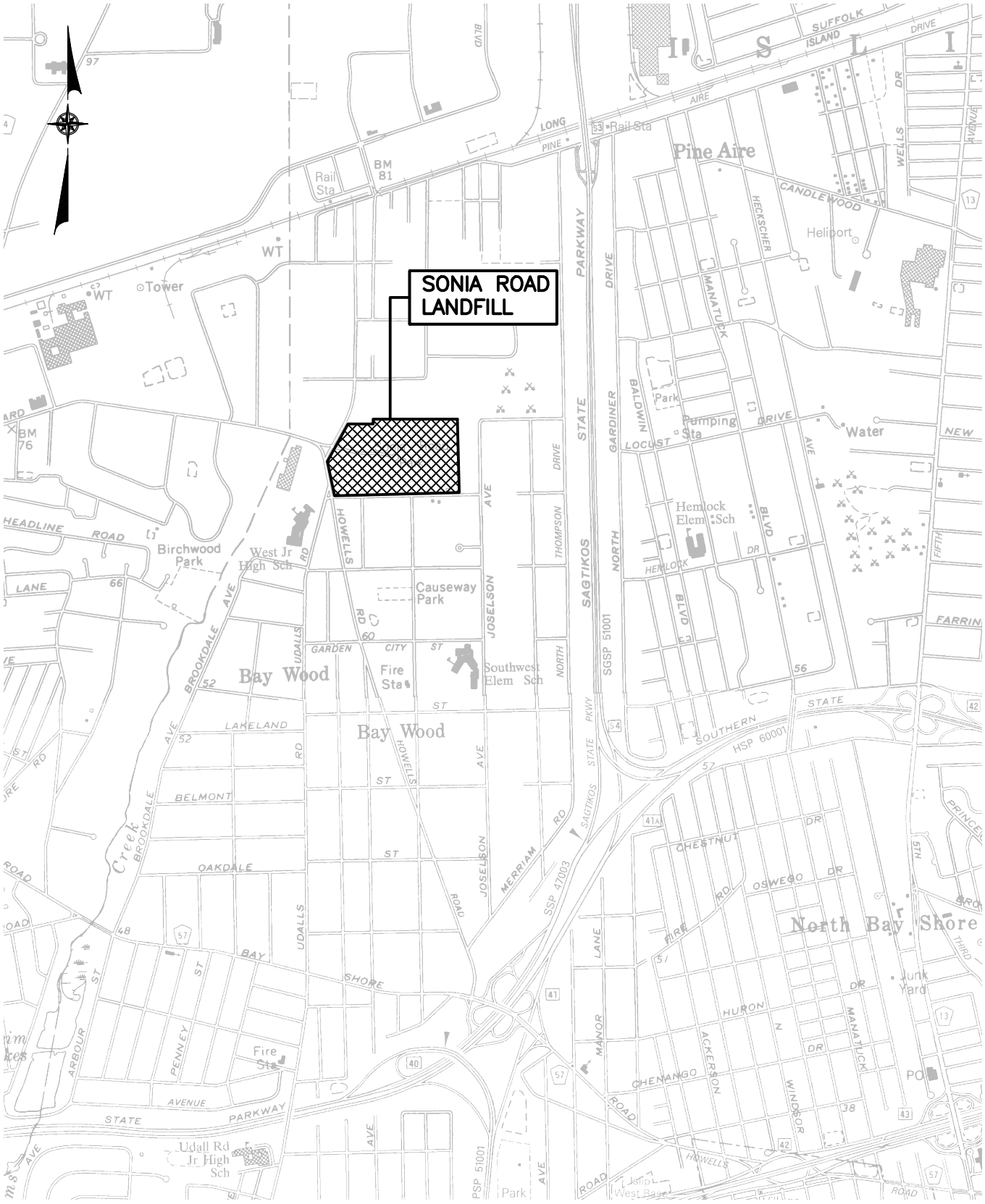
1.1 Objectives of the Periodic Review Report

The objectives of the PRR process include:

- Presenting background information;
- Identifying the remedial goals established for the Landfill;
- Evaluating the remedy performance, effectiveness and protectiveness;
- Institutional Controls and Engineering Control (IC/EC) Compliance;
- Monitoring and Maintenance Plan Compliance; and
- Presenting conclusions and recommendations regarding the components of the monitoring plan, with respect to achieving the remedial goals established for the Landfill.

1.2 Selected Remedy

As stipulated in the Record of Decision (ROD) issued by the New York State Department of Environmental Conservation (NYSDEC) in July 1998, the NYSDEC has selected capping and landfill gas control as the selected remedy. The components of the selected remedy include:



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

D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER
MONITORING PROGRAM

SITE LOCATION MAP

SCALE: 1"=2000'

FIGURE 1-1

F:\5604-1B\dwg\5604-USGS.dwg, FIG 1-1, 7/6/2021 11:44:52 AM, rferrell

- Remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program;

- Construction of a Part 360 landfill cap, featuring a geotextile layer, a 12" gas venting layer, geomembrane hydraulic barrier, geocomposite drainage layer, 24" barrier protection layer, and a 6' vegetative growth medium or 6" stone/recycled concrete layer;

- An active gas collection system consists of gas collection wells around the perimeter and gas recovery wells within the interior of the landfill. Extracted gas will be treated using a flare, if necessary;

- Institute a long-term monitoring program for groundwater and landfill gas; and

- Implementation of institutional controls including deed restrictions for the Landfill and restrictions on the use or installation of wells within the groundwater contaminant plume.

2.0 SITE OVERVIEW

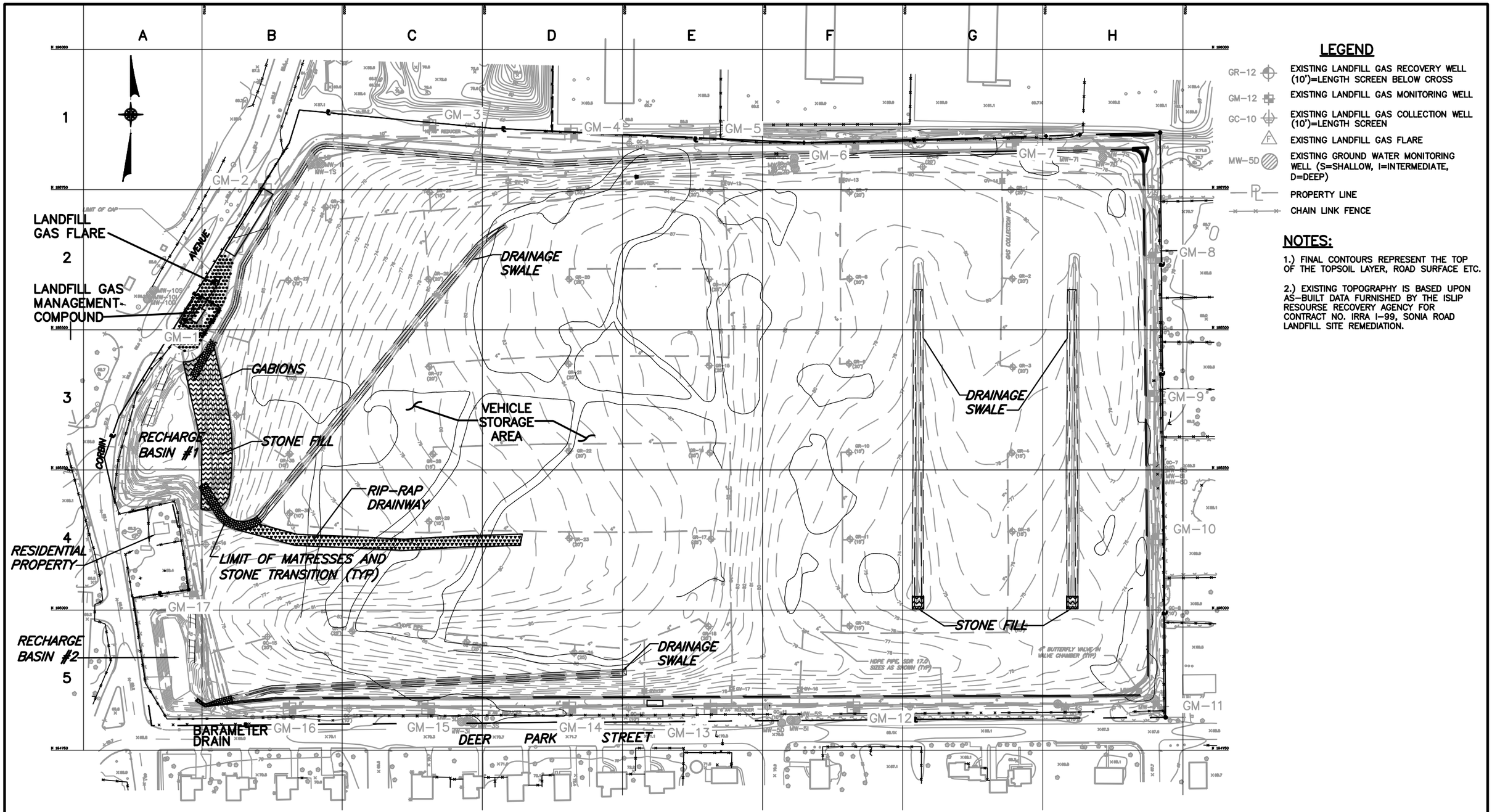
2.1 Site Location and Description

The Sonia Road Landfill site (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 of Islip. The location of the Sonia Road Landfill is illustrated on **Figure 1-1.**

The landfill property is 42.2 acres in area and is approximately rectangular in shape as shown on **Figure 2-1**. 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. As shown on **Figure 2-1**, there is one commercial property, located immediately adjacent to the Landfill's western property boundary, that currently operates as a landscape and masonry supply company Tax Map No. 221-2-1. 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.

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 Landfill using recycled concrete aggregate. The storm water management system consists of a series of drainage swales, catch basins, buried storm water



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
- GM-12 — EXISTING LANDFILL GAS MONITORING WELL
- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
- EXISTING LANDFILL GAS FLARE
- MW-5D — EXISTING GROUND WATER MONITORING WELL (S=SHALLOW, I=INTERMEDIATE, D=DEEP)
- PL — PROPERTY LINE
- CHAIN LINK FENCE

NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

2.) EXISTING TOPOGRAPHY IS BASED UPON AS-BUILT DATA FURNISHED BY THE ISLIP RESOURSE RECOVERY AGENCY FOR CONTRACT NO. IRRA I-99, SONIA ROAD LANDFILL SITE REMEDIATION.

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SONIA ROAD LANDFILL

SITE PLAN

SCALE: N.T.S.

FIGURE 2-1

property is discharged to a series of dry wells (leaching rings) in the area of Sonia Road. The remainder of the Landfill 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 Landfill, drainage swales are located on the in-board side of the perimeter road.

2.2 Surrounding Area

The Landfill is bordered to the north and west by commercial and industrial properties and to the south and east by residential properties. To the southwest of the Landfill property is 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 Sampawams Creek ultimately discharges to The Great South Bay.

2.3 Significant Features

The Landfill study area is situated on a south-sloping glacial outwash plain approximately four miles south of the Ronkonkoma Moraine. The Landfill is located in the upper portion of a south-southwest trending valley in which Sampawams Creek flows. The head waters of the creek lie approximately 3,000 feet southwest of the Landfill, however, the dry creek channel extends north to within approximately 800 feet southwest of the Landfill (Sorenson, 1979). The land surrounding the Landfill slopes gently to the south-southwest except in the area of the Sampawams Creek where land generally slopes toward the creek (see **Figure 1-1**). Elevations in the vicinity of the Landfill (within about 1000 feet) range from approximately 50 feet above mean sea level (AMSL) at the head of the Sampawams dry creek channel to approximately 85 feet AMSL to the north-northeast of the Landfill, although a few isolated bermed areas on the Landfill are over 90 feet AMSL.

Soils in the Landfill study area are predominantly glacial outwash consisting of highly permeable sands with some areas of locally gravelly sands. According to the Soil Survey of Suffolk County, New York, prepared by the United States Soil Conservation Service, the predominant soil type designated for the area surrounding the Landfill is the Haven loam (with 0-2% slopes). The Riverhead and Haven soils (with 0-8% slopes) are also found to the southeast and southwest of the Landfill. Also, according to the Soil Survey of Suffolk County, the actual soil types designated for the Sonia Road Landfill are Gp (Gravel Pits) for the northern half of the Landfill and Ma (Made Land) for the southern half of the Landfill. These classifications were obviously made after the native cover soils at the Landfill were removed and/or reworked.

2.4 Site History

The Landfill has been owned by the Town of Islip since 1965. Prior to 1965, the property was privately owned and used as a source of mined sand and gravel. As a result of this mining operation, virtually the entire property 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 Landfill (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 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 Landfill. There are no weight records to substantiate this estimate.

The Landfill reportedly accepted all municipal solid waste which included 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 of at the facility and that underground fires were common.

2.5 Nature and Extent of Contamination Prior to Site Remediation

On March 29, 1996, an Order on Consent was signed between the Town of Islip and the NYSDEC requiring a Remedial Investigation/Feasibility Study (RI/FS) be completed at the Landfill. The Landfill at that time was listed as a Class 2 site on the NYSDEC registry of inactive hazardous waste sites, that indicates a site poses a significant threat to public health or the environment.

The following information was presented in the ROD and is a summary based on the findings of the RI/FS activities that were initiated in February 1997.

Surface Soils

Low levels of volatile organic compounds (VOCs) and pesticides were detected in on-site surface soil samples, although none were above soil cleanup objectives. Six of the seven samples indicated the presence of semivolatile organic compounds (SVOCs), specifically polycyclic aromatic hydrocarbons (PAHs), above the cleanup objective. PAHs are typically associated with incomplete combustion of fossil fuels and are found in asphalt, cinder, coal and tar. Iron and zinc were also detected above cleanup objectives in all surface soil samples. Although on-site concentrations of SVOCs and metals were above the cleanup objectives for these parameters, on-site concentrations were consistent with off-site background samples.

Subsurface Soil

Zinc was the only compound detected above the soil cleanup objective in the sample collected from subsurface soil at a maximum concentration of 54 parts per million (ppm). The NYSDEC soil cleanup objective (SCO) at the time was 20 ppm. The current SCO for zinc presented in 6 NYCRR Part 375 for unrestricted use (Table 375-6.8(a)) is 109 ppm.

Groundwater

Upgradient and downgradient samples collected from the shallow, intermediate and deep groundwater indicate the presence of VOCs, metals, and leachate parameters that exceed groundwater standards. The most substantial contamination was found in the deep groundwater zone (approximately 110 feet below grade and atop the Gardiner's clay). This location showed the maximum concentration of the volatile organic compound (VOC) tetrachloroethene at 1,600 parts per billion (ppb). This deep zone groundwater contamination is believed to be from upgradient offsite sources and did not originate from the Landfill, based on review of existing historical information and data from upgradient sites that confirmed similar contaminants and the potential for off-site migration towards Landfill.

Soil Vapor/Explosive Gas

No elevated levels of total VOCs in soil vapor were detected throughout the Landfill. However, fourteen locations did indicate the presence of explosive gas, predominantly located on the eastern side of the Landfill, were screened again and indicated elevated concentrations of methane gas, as high as 58% methane gas by volume. Additional locations closest to the boundaries of the Landfill were sampled and did not indicate the presence of methane gas and no methane has migrated off the property. The generation and presence of methane gas at solid waste landfills is not unexpected and is the result of decomposition of organic materials such as grass clippings and food waste.

2.6 Summary of Remedy

Based on the findings of the RI, the NYSDEC issued a ROD on July 7, 1998, for the remediation of the Landfill in accordance with the site-specific Remedial Action Objectives (RAOs) to protect human health and the environment. The RAOs, as defined in the ROD, included the following:

1. Reduce, control, or eliminate to the extent practicable the contamination present within the soils/waste on site (generation of leachate within the fill mass);

2. Eliminate the threat to surface waters by eliminating any future contaminated surface run-off from the contaminated soil on site;

3. Eliminate the potential for direct human or animal contact with the contaminated soil on site;

4. Mitigate the impacts of contaminated groundwater to the environment;

5. Prevent, to the extent possible, migration of contaminants in the Landfill to groundwater; and

6. Control Landfill gas emissions to levels that are protective of on-site and off-site receptors.

To meet the site-specific RAOs, the NYSDEC selected Alternate 4 – Landfill Gas Control and Capping as the remedy for the Landfill, which consist of the following components:

1. Installation of a 6 NYCRR Part 360 landfill cap. The areal extent of the cap is approximately 40 acres;

2. An active gas collection system consisting of gas collection wells around the perimeter and gas recovery wells within the interior of the Landfill. Extracted gas to be treated using a flare, if necessary; and

3. An operation and maintenance program including a long-term monitoring program to monitor groundwater and landfill gas to evaluate the effectiveness of the selected remedy.

In accordance with Component No. 1 of the selected remedy, the construction of the 6 NYCRR Part 360 cap over the Landfill was completed in the fall of 2000. The final components of the cap consisted of the following, from the surface downward:

- Topsoil Layer: A six-inch surface layer of uncompacted soil capable of supporting vegetation;

- Barrier Protection Layer (Type II): A twelve-inch layer of clean general fill mixed with wood mulch/wood chips;

- Barrier Protection Layer (Type I): A twelve-inch layer of clean general fill;

- Geocomposite Drainage Layer: A fabricated composite consisting of a geosynthetic (polyethylene) drainage layer (geonet) core with a nonwoven geotextile (8 oz./sq. yd., polyethylene) permanently bonded to each side of the geosynthetic drainage layer;

- Geomembrane Cap: The high-density polyethylene (HDPE) geosynthetic liner was placed below the geocomposite drainage layer. The geosynthetic liner is a 60-mil textured HDPE flexible geomembrane;

- Gas Venting Layer: The gas venting layer consists of twelve inches of natural sand with a minimum coefficient of permeability of 1 x 10--3 cm/sec. Active gas collection laterals (lateral extensions of the landfill gas recovery wells) were placed within the sand to collect gas from this layer and the vertical component of the landfill gas recovery wells were extended vertically downward into the waste materials to collect gases generated there; and

- Prepared Subgrade: The prepared subgrade surface serves as the graded and compacted surface upon which the veneered layers of the capping system are sequentially constructed. The prepared subgrade surface was achieved through a combination of activities which included: excavation of municipal solid waste in areas of cut, re-landfilling of excavated municipal solid waste in areas of fill, and placement of contour grading material (general fill) to achieve the proposed subgrade contours. In areas where the depth of fill required to achieve subgrade elevations exceeded two feet, a six-inch layer of compost overs (a byproduct from the Town of Islip Yard Waste Composting Facility) was placed in conjunction with the re-landfilling of excavated municipal solid waste.

The above-described capping system was constructed throughout the Landfill, to the limits of cap, except for the eastern side slope area of Recharge Basin No. 1. The eastern side slope of Recharge Basin No. 1 lies within the limits of waste. To mitigate the potential for impounded water infiltrating the waste mass from the recharge basin, a composite hydraulic barrier was designed and constructed. This composite system consisted of layered geosynthetics (60 mil textured HDPE geomembrane, geosynthetic clay liner (GCL) and 60 mil textured HDPE geomembrane) placed above the gas venting layer. The geocomposite drainage layer overlies the composite hydraulic barrier. Above the geocomposite drainage layer, a layer of fine stone fill was placed in lieu of the barrier protection and topsoil layers. The stone fill provides ballast to the geosynthetics to keep them in place. At the top of the side slope, a row of stone filled gabion baskets were installed and separates the areas with stone fill from the adjacent areas with soils above the geosynthetics.

In accordance with Component No. 2 of the selected remedy, an active gas collection and gas monitoring system was constructed during the Landfill closure/capping activities. A blower system actively collects landfill gases from 37 newer gas recovery wells located throughout the Landfill and discharges them to a new flare for destruction. There are an additional 17 landfill gas monitoring wells (i.e., perimeter collection system), located at relatively uniform intervals around the perimeter of the Landfill, which are also connected to the gas header system leading to the new landfill gas management facility. The blowers and flare are located in the Landfill Gas Management Compound on the western edge of the Landfill to the north of Recharge Basin No. 1 and the Landfill entrance from Corbin Avenue. The 17 gas monitoring wells that have been installed at relatively uniform intervals around the perimeter of the Landfill in close proximity to the property line, are sampled to determine if gas is migrating off-site.

In accordance with Component No. 3 of the selected remedy, an operation and maintenance program were implemented including a long-term monitoring program to monitor groundwater and landfill gas to evaluate the effectiveness of the selected remedy. The details of the long-term monitoring program were presented in the Post Closure Monitoring and Maintenance Plan (PCMMP) (Volume 4 of 4) (YEC, Inc, October 2000) and included procedures for Landfill inspections, maintenance and repair procedures, a sampling and analysis plan for groundwater monitoring, and a gas monitoring plan.

In December 2001, the PCMMP (Volume 3 of 4) Sampling and Analysis Plan (SAP) (D&B, December 2001) was prepared to specifically address the sampling and analytical program to be performed to monitor groundwater quality conditions during the post closure monitoring period of the landfill. This revised SAP was prepared to supersede the interim SAP, dated October 2000, used to establish the baseline groundwater quality following the construction of the Landfill capping system. The SAP is a part of the Sonia Road Post Closure Monitoring and Maintenance Plan (Volume 3 of 4), which was approved by the NYSDEC in a letter dated January 18, 2006.

In July 2006, the PCMMP Supplement No. 1 to Volume 1 of 4 (D&B, July 2006) was prepared to outline several modifications or improvements that had been constructed at the

Landfill to address select issues or to accommodate the secondary use of the Landfill. This document was prepared to serve as a supplement to the October 2000 PCMMP and is used in conjunction with the October 2000 PCMMP. These changes include the following:

1. Installation of eight drainage rings (dry wells) in the area of the Landfill to address the need for additional storm water management. Additional storage capacity was provided by the installation of eight additional dry well structures located in the right-of-way of Sonia Road in the area between Johnson Avenue and the Landfill property. The three structures are 8 feet in diameter and have a leaching ring depth of 16 feet. The remaining five structures are 12 feet in diameter and have a leaching ring depth of 18 feet. Each structure is fitted with a manhole casting to allow access for maintenance, which is not anticipated.

2. Installation of a buried 6,000-gallon, double-walled, fiberglass storage tank in the Landfill Gas Management compound to store the accumulation of landfill gas condensate from the gas collection system for off-site disposal. The system consists of the buried storage tank, dual contained piping to deliver condensate to the tank, leak detection, liquid level monitoring, auto dialer and an interface with the landfill gas blower system.

3. Operation of the landfill gas flare as a vent stack (no flame) during the operation of the landfill gas management system due to the variability of combustible methane in the system. Operation of the Landfill Gas Management System has revealed that methane is still being generated at the site and warrants continued operation of the system. However, the generation rate for methane is insufficient to provide a quality of gas suitable to support combustion at the flare.

4. Installation of site improvements to address subsurface drainage in the area of the perimeter road along the northwest comer of the property. The drainage detail provides both a waterstop constructed with a geosynthetic clay liner (GCL) and a French drain constructed with 6-inch diameter perforated, corrugated HDPE pipe and drainage stone (pea gravel). The overall length of the drain is approximately 800 feet. The drainpipe is installed above the HDPE geomembrane and is located approximately 2 feet below grade. The drain discharges at the north end of Recharge Basin No. 1. The pipe outlet is fitted with an animal guard. The drain is constructed parallel to the perimeter drainage swale (approximately 3 feet to the outboard side of the swale). Other than the pipe outlet, the drain is not visible. No routine maintenance of the drain is required.

5. Revisions to select landfill gas monitoring wellheads and groundwater monitoring wells as a result of the settlement of surrounding soils following completion of the landfill capping system.

6. Site improvements including, but not limited to, roads, drainage culverts, site lighting and two new entrances to the Landfill to accommodate the secondary use of the site

for the storage of automobiles. The Town of Islip has entered into a lease agreement for the secondary use of the capped and closed Sonia Road Landfill. The lessee is an automobile dealer and the secondary use involves the storage of new automobiles awaiting distribution. The lease agreement provides for the use of approximately 32 acres of the site, all within the area encompassed by the perimeter road. The agreement provides for the on-site storage of approximately 5,000 new vehicles. Management of the inventory should provide for the movement of approximately 1,000 vehicles per month.

These improvements include two new entrances to the site located along the north property line. The entrances are accessed from South Fourth Street through an adjacent parcel of land arranged by the lessee. The adjacent parcel of land is not part of the Sonia Road Landfill and its care and maintenance are not addressed by this document.

Additional on-site improvements include the construction of road areas or aisles to access the stored vehicles, site lighting, a security trailer, fire stations and the installation of culvert pipes in areas where the new roads or aisles would otherwise impact the flow of surface drainage. All of these improvements have been installed at or above the top of the landfill capping system and should not directly impact the integrity of the cap.

The Landfill has been managed to date under an active long-term site management program in accordance with the NYSDEC-approved PCMMP.

3.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

As indicated in **Section 2.0**, the remedy for the Landfill was selected to achieve the identified RAOs for the Landfill.

3.1 Effectiveness of the Remedial Program

Based on an evaluation of the RAOs presented in the ROD for the Site and the information presented in support of the PCMMP, the components of the remedy continue to meet the following RAOs stated in Section 2.6:

1. Reduce, control, or eliminate to the extent practicable the contamination present within the soils/waste on site (generation of leachate within the fill mass);
2. Eliminate the threat to surface waters by eliminating any future contaminated surface run-off from the contaminated soil on site;
3. Eliminate the potential for direct human or animal contact with the contaminated soil on site; and
6. Control landfill gas emissions to levels that are protective of on-site and off-site receptors.

The RAOs identified above have been effectively achieved with the construction of the Part 360 landfill cap, active gas collection and gas monitoring system, stormwater collection system and drainage improvements and ongoing site management and maintenance activities.

In May 2011, following a review of the results from the April 2010 Post Closure Groundwater Monitoring Program, the NYSDEC, with concurrence from the New York State Department of Health (NYSDOH) changed the Landfill classification from a Class 2 to Class 4. In that decision document, the NYSDEC stated, and the NYSDOH concurred, that the Landfill no longer presents a significant threat to public health and/or the environment. A Class 4 site is assigned to a site that has been properly closed but that requires continued site management consisting of operation, maintenance and/or monitoring. The NYSDEC-approved PCMMP

continues to be implemented as part of site management to document the effectiveness of the remedy.

Based on the 2025 groundwater monitoring data, three inorganic parameters, several leachate indicators and one VOC exceeded their respective NYSDEC Class GA Groundwater Standards/Guidance Values. The following two RAOs are still actively progressing toward achieving RAO No. 4 and No. 5, which are:

4. Mitigate the impacts of contaminated groundwater to the environment; and
5. Prevent, to the extent possible, migration of contaminants in the Landfill to groundwater.

A discussion of the 2025 groundwater monitoring data is presented in Section 5.

3.2 Green and Sustainable Remediation Evaluation

The Landfill is currently closed and is used for parking of storage for a automotive dealer. Green and sustainable remediation (GSR) principles and techniques will be implemented to the extent feasible in the Site management of the remedy as per DER-31. The major GSR components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing the use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling, and increasing reuse of materials which would otherwise be considered a waste; and
- Incorporating GSR principles and techniques to the extent feasible in the future development at the Site. Any future on-site buildings shall be constructed, at a

minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

Waste Generation

Monitoring, maintenance and reporting activities associated with the groundwater monitoring and operation and maintenance of the landfill gas collection system result in material consumption and the generation of waste. A summary of the current material consumption and waste generation activities for these activities are summarized below:

- Personal protective equipment and disposable equipment and associated with groundwater sampling, such as disposable gloves, tubing, etc.;
- Repair or replacement of equipment associated with the landfill gas collection system;
- Repair of replacement of monitoring/injection wells;
- Packaging material and ice used to pack and preserve samples to be submitted for laboratory analysis; and
- Paper and office supplies associated with site logs, monitoring logs and report preparation.

Electric Usage

The landfill gas collection systems currently obtains 100% of its electricity from the local electric utility. Going forward the Town will collect data regarding the annual energy consumption assuming the blower on the landfill gas collection systems operates continuously year-round. In addition, if a heater is operated in the winter months and an exhaust fan in the summer months the total energy consumption associated with the Landfill will increase. Minor electricity usage can be attributed to the system controls.

Emissions

As indicated above, operation of the Landfill Gas Management System has revealed that methane is still being generated at the site and warrants continued operation of the system. However, the Landfill Gas Management Systems rate of generation for methane is insufficient to provide a quality of gas suitable to support combustion at the flare due to the variability of combustible methane in the system. Groundwater monitoring does not directly use fossil fuels as part of its routine operation; however, fossil fuels are indirectly used during the completion of groundwater monitoring. Indirect fossil fuel use results from completion of the following Site related activities:

- Transportation to and from the Site for monitoring and sampling activities.
- Off-site transportation and shipment of samples collected for laboratory analysis. A local laboratory is utilized to minimize emissions.
- Disposal of waste generated at the Site.

Water Usage

Site engineering controls do not directly use water as part of its maintenance; however, minimal amounts of water are used during groundwater sampling to decontaminate sampling equipment.

Timing of Green Remediation Evaluations

For major remedial system components, green remediation evaluations and corresponding modifications will be undertaken as part of a formal Remedial System Optimization (RSO), or at any time that the Project Manager feels appropriate, e.g. during significant maintenance events or in conjunction with storm recovery activities.

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance activities. Reporting of these modifications, if any, will be presented in the PRR.

3.2.1 Remedial Systems

Remedial systems have been operated properly considering the current Site conditions to conserve materials and resources to the greatest extent possible. Consideration is given to operating rates and mechanical efficiencies associated with the blower system. Spent materials will be sent for recycling, as appropriate.

3.2.2 Building Operations

Structures, including buildings and sheds, will be operated and maintained to provide for the most efficient operation of the remedy, while minimizing energy, waste generation and water consumption.

Components evaluated associated with the Landfill Gas Compound include, but are not limited to:

- Heating/cooling systems and seasonal temperature set-points;
- Building skin, insulation and building use and occupancy;
- Ventilation; and
- Grounds and property management.

3.2.3 Frequency of System Checks, Sampling and Other Periodic Activities

Transportation to and from the Site, use of consumables in relation to visiting the Site in order to conduct system checks and/or collect samples, and shipping samples to a laboratory for analyses have direct and/or inherent energy costs. The schedule and/or means of these periodic

activities have been prepared so that these tasks can be accomplished in a manner that does not impact remedy protectiveness but reduces expenditure of energy or resources.

3.2.4 Metrics and Reporting

As shown in **Appendix G** – Green Remediation Metrics, information on energy usage, solid waste generation, transportation and shipping, water usage and land use and ecosystems has been estimated to facilitate and document consistent implementation of green remediation during site management and to identify corresponding benefits; a set of metrics has been developed.

3.3 Remedial System Optimization

A Remedial Site Optimization (RSO) study will be conducted any time that the NYSDEC project manager or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the Decision Document;
- The management and operation of the remedial system is exceeding the estimated costs;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of site management activities to another remedial party or agency; and
- A new and applicable remedial technology becomes available.

An RSO will provide a critique of a site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the Site's

cleanup goals, gather additional performance or media specific data and information and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

The RSO study will focus on overall site cleanup strategy, process optimization and management with the intent of identifying impediments to cleanup and improvements to Site operations to increase efficiency, cost effectiveness and remedial time frames. Green remediation technology and principals are to be considered when performing the RSO.

4.0 IC/EC PLAN COMPLIANCE

In accordance with the Institutional and Engineering Controls (IC/EC) Certification Form provided by the NYSDEC, the following is a summary of the IC/ECs for the Sonia Road Landfill:

- Institutional Control: PCMMP and associated supplements
- Institutional Control: Land use restrictions
- Institutional Control: Groundwater Use Restrictions
- Institutional Control: Building Use Restrictions
- Institutional Control: Surface Water Use Restrictions
- Institutional Control: Monitoring Plan and Operation and Maintenance (O&M) Plan
- Engineering Control: Vapor Mitigation
- Engineering Control: Cover System
- Engineering Control: Fencing/Access Control

As described above, institutional controls (ICs) in the form of land use restrictions, groundwater use restrictions, building use restrictions (no buildings are currently present), and surface water use restrictions is required for the Landfill. These controls are a nonphysical means to limit the use of the land and ensure that no structures are built on the property and no potable groundwater wells are installed without prior approval from the NYSDEC and/or the NYSDOH. The land use restriction is maintained by a Deed Restriction for the property, which was recorded in the Suffolk County Clerk's Office on June 1, 2004. The Town is currently in compliance and maintains the restriction by reviewing site conditions as part of the annual monitoring and maintenance.

Several engineering controls (ECs) are also required for the Landfill, including vapor mitigation, a cover system and access control.

Table 4-1 (below**)** provides a description of each control, its objectives, how performance of the control is evaluated and a summary of the status of each goal. Based on a review of the current activities completed at the Landfill in support of the IC/EC Plan, Monitoring Plan and O&M Plan, all ICs/ECs are currently in place and are effectively meeting their objective and should be continued. A copy of the completed and certified IC/EC Certification Form is included in **Appendix A**.

TABLE 4-1
SONIA ROAD LANDFILL
MARCH 2024 - MARCH 2025 PERIODIC REVIEW REPORT
SUMMARY OF ENGINEERING CONTROLS

Engineering Control	Objective	How Performance Is Evaluated	Current Status
6 NYCRR Part 360 geosynthetic membrane cap, consisting of fill material, drainage layers, an impermeable membrane, and a gas-venting system	• Minimize the infiltration of rainfall or snow melt into the landfill, thus reducing the quantity of water percolating through the landfill materials and leaching out contaminants. • Prevent the potential for direct human and animal contact with contaminated soils and waste materials. • Prevent inhalation of vapors from the landfill. • Reduce the movement and toxicity of the contaminated landfill leachate into groundwater and subsequent downgradient migration of contaminants.	• Semi-annual field inspection to assess the physical conditions of the cap. • Semi-annual field inspection to assess the physical conditions of the cap. • Refer to Landfill gas monitoring and control program. • Semi-annual groundwater sampling to assess the concentration of VOC, leachate and inorganic associated contaminants in the groundwater.	Landfill cap is in good condition and is meeting the objectives stated.
Stormwater collection systems - (downshutes, gravity sewer drain, diversion swales and recharge basins)	• Minimize the infiltration of rainfall or snow melt into the landfill, thus reducing the quantity of water percolating through the landfill materials and leaching out contaminants.	• Semi-annual field inspection to assess the physical conditions of the storm water runoff control system.	Stormwater collection system is in good condition and is meeting the objectives stated.
Perimeter site fence	• Prevent access to the landfill area by neighboring residents.	• Semi-annual field inspection to assess the physical conditions of the fence.	Perimeter site fence is in good condition and is meeting the objectives stated.
Landfill gas monitoring and control program	• Prevent off-site migration and inhalation of vapors from the landfill. • Collection and control of landfill gas.	• Monthly monitoring of landfill gas extraction wells, blowers and landfill gas monitoring wells. • Semi-annual field inspections to assess the physical conditions of the system.	Results from the landfill gas monitoring program conducted on a monthly basis throughout the reporting period, indicate that the landfill gas controls are effectively capturing landfill gases and preventing off-site migration.

Note: Field inspections shall be performed for each engineering control after a specified rainfall event (5-year storm, or greater, as required by 6 NYCRR Part 360).

5.0 MONITORING PLAN COMPLIANCE

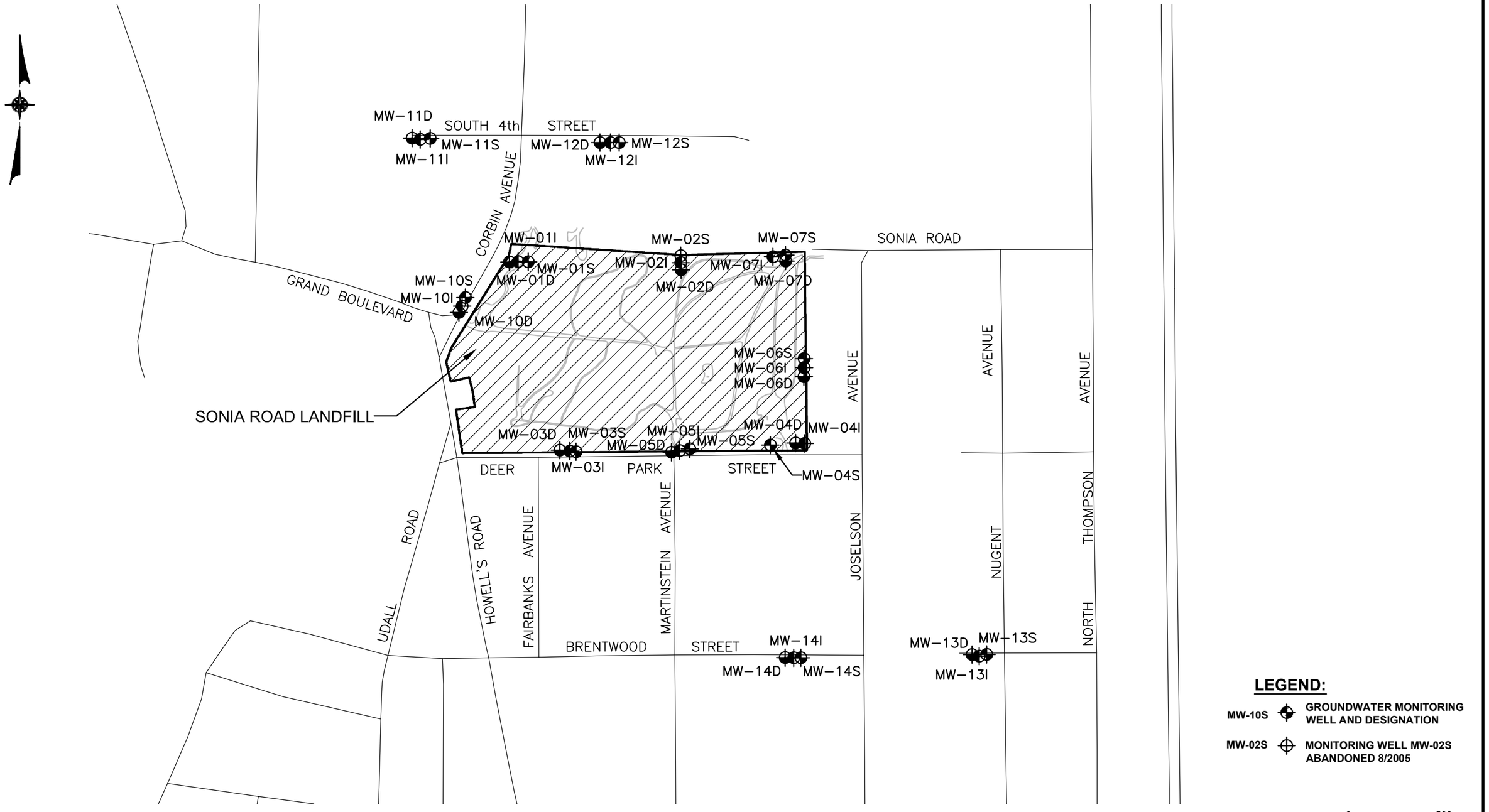
The scope of the monitoring program for the Landfill addresses the groundwater monitoring activities, landfill gas monitoring, VOC and combustible gas monitoring, landfill cap and site security inspections. Presented below is a summary of each monitoring activity performed throughout the March 31, 2024 through March 31, 2025 reporting period, as well as associated performance standards, performance evaluation and compliance status.

5.1 Groundwater Monitoring/Sampling Activities

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 part of the Sonia Road PCMMP (Volume 3 of 4), which was approved by the NYSDEC in a letter dated January 18, 2006. 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 Landfill. The post closure groundwater monitoring program currently consists of synoptic water level measurements and groundwater sampling on a rotating 15-month basis for the 6 NYCRR Part 363 Baseline Parameter List.

The monitoring well network for the Landfill consists of 35 groundwater monitoring wells. Well locations are shown on **Figure 5-1**. 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 5-1**.

Twenty-two (22) wells are sampled as part of the Post Closure Monitoring Program. The sampled wells are presented in **Table 5-2**. As indicated above, during this reporting period, only 19 of 22 monitoring wells were sampled during the January 2025 sampling event as upgradient groundwater monitoring well cluster MW-11 (MW-11S, MW-11I, MW-11D) was not accessible due to snow and ice.



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D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

GROUNDWATER MONITORING WELL LOCATIONS

SCALE: 1" = 500'

FIGURE 5-1

Table 5-1

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 5-1 (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 5-2

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	

5.1.1 Groundwater Level Measurement Procedures

Synoptic water level measurements were obtained from 32 of 35 monitoring wells for determination of groundwater elevations and groundwater flow direction on January 24, 2025. Upgradient groundwater monitoring well cluster MW-11 (MW-11S, MW-11I, MW-11D) was not accessible due to snow and ice. 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 5.2.**

5.1.2 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 (DO) 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. Groundwater samples were collected in laboratory supplied containers, labeled and stored on wet ice in the laboratory supplied coolers in accordance with following United States Environmental Protection Agency (USEPA) SW-846 requirements. The collected groundwater monitoring well were relinquished following standard chain-of-custody procedures to Pace Analytical, Melville, NY.

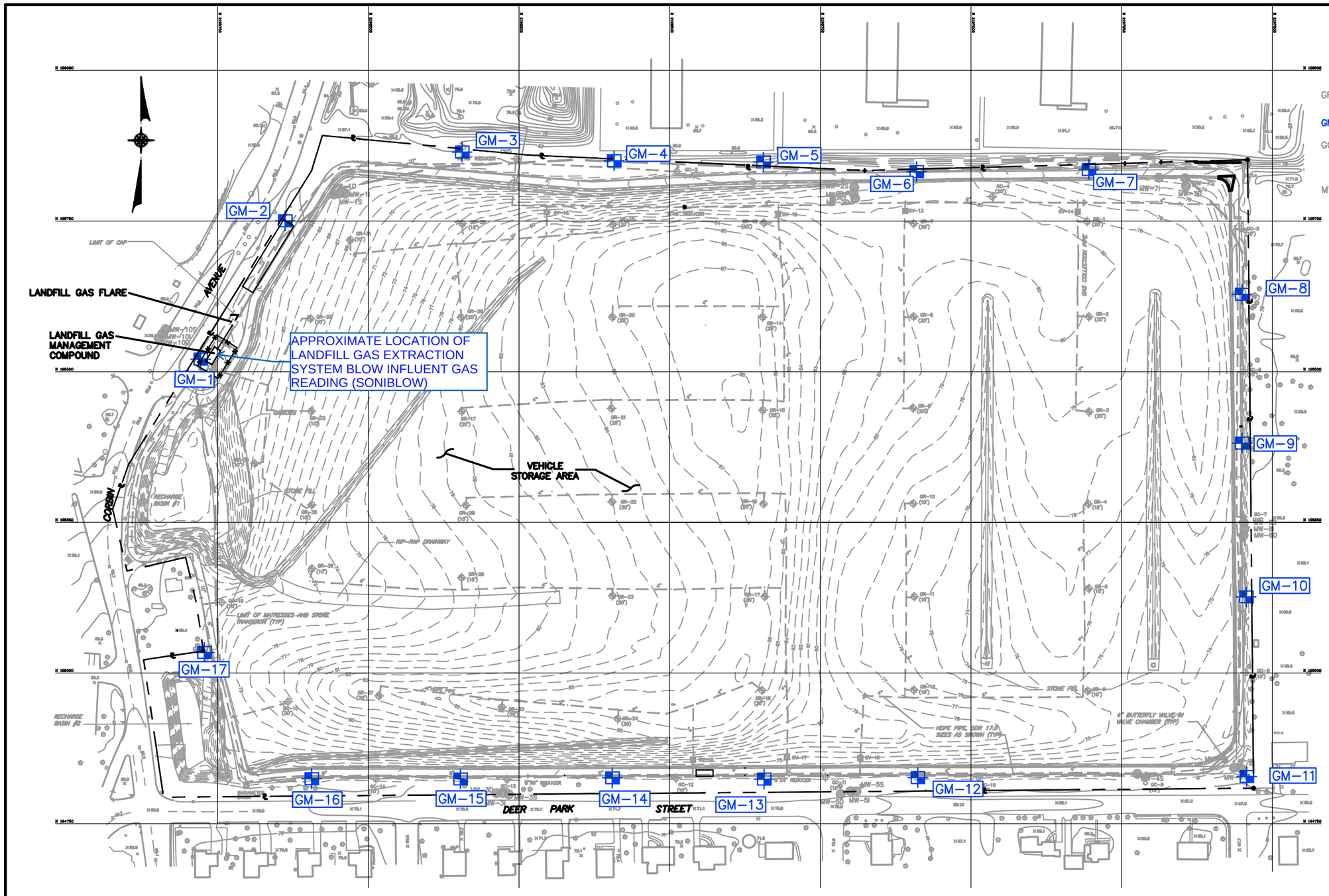
Appropriate quality assurance/quality control (QA/QC) samples, which included one field blank, one matrix spike and matrix spike duplicate (MS/MSD) set and one blind duplicate, were collected in accordance with the SAP. In addition, a trip blank sample accompanied the laboratory cooler for each day of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

5.1.3 Landfill Gas, Volatile Organic Vapor and Combustible Gas Monitoring

Landfill gas monitoring is performed monthly at 17 landfill gas monitoring wells located around the perimeter of the Landfill and at the Landfill Gas Management Compound (blower location) using a Landtec GEM 5000 Gas Analyzer. These monitoring locations are shown on **Figure 5-2**. The gas analyzer is calibrated with 50 percent (%) methane (CH4) and 35% carbon dioxide (CO2) with the balance nitrogen (N2) gas, and 4% O2 with the balance N2 gas according to the manufacturer's recommendation prior to sampling. For each landfill gas monitoring well and the blower location, the following readings are recorded (methane, carbon dioxide, oxygen, atmospheric pressure and relative pressure). Methane, carbon dioxide and oxygen are reported in percent gas. Atmosphere pressure is reported in inches of mercury and relative well head pressure is reported in inches of water.

In addition, prior to collecting synoptic water level measurements as part of the 15-month rotating groundwater monitoring activities, volatile organic vapor and combustible gas monitoring is conducted at each monitoring well. Volatile organic vapor and combustible gas measurements were collected at all 35 monitoring wells. Volatile organic vapors are measured using a photoionization detector (PID) and combustible gas was measured using a portable multi-gas meter.



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
- GM-12 — EXISTING LANDFILL GAS MONITORING WELL
- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
- EXISTING LANDFILL GAS FLARE
- MW-5D — EXISTING GROUND WATER MONITORING WELL (S=SHALLOW, I=INTERMEDIATE, D=DEEP)

NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

2.) EXISTING TOPOGRAPHY IS BASED UPON AS-BUILT DATA FURNISHED BY THE ISLIP RESOURSE RECOVERY AGENCY FOR CONTRACT NO. IRRA I-99, SONIA ROAD LANDFILL SITE REMEDIATION.

D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

LANDFILL GAS MONITORING LOCATIONS

NOT TO SCALE

FIGURE 5-2

S:\MFrangione\Figures\PW9848-Figure B-3.dwg, 11x17, 3/9/2021 3:06:29 PM, kalesius

5.2 Groundwater Level Measurements and Flow Direction

Groundwater level measurements were obtained on January 24, 2025 from 19 of 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 32 monitoring wells are summarized in **Table 5-3**.

The January 24, 2025 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 Landfill. Considering variability of precipitation and seasonal fluctuation, the water level data appears to be consistent with previous monitoring events. Water table and potentiometric surface (for the intermediate and deep wells) elevation contour maps are presented on **Figures 5-3, 5-4** and **5-5,** respectively. Groundwater flow in the vicinity of the Landfill is toward the southeast for the zones of the Upper Glacial aquifer screened by the shallow, intermediate and deep wells. This flow direction is consistent with historic data for the Landfill.

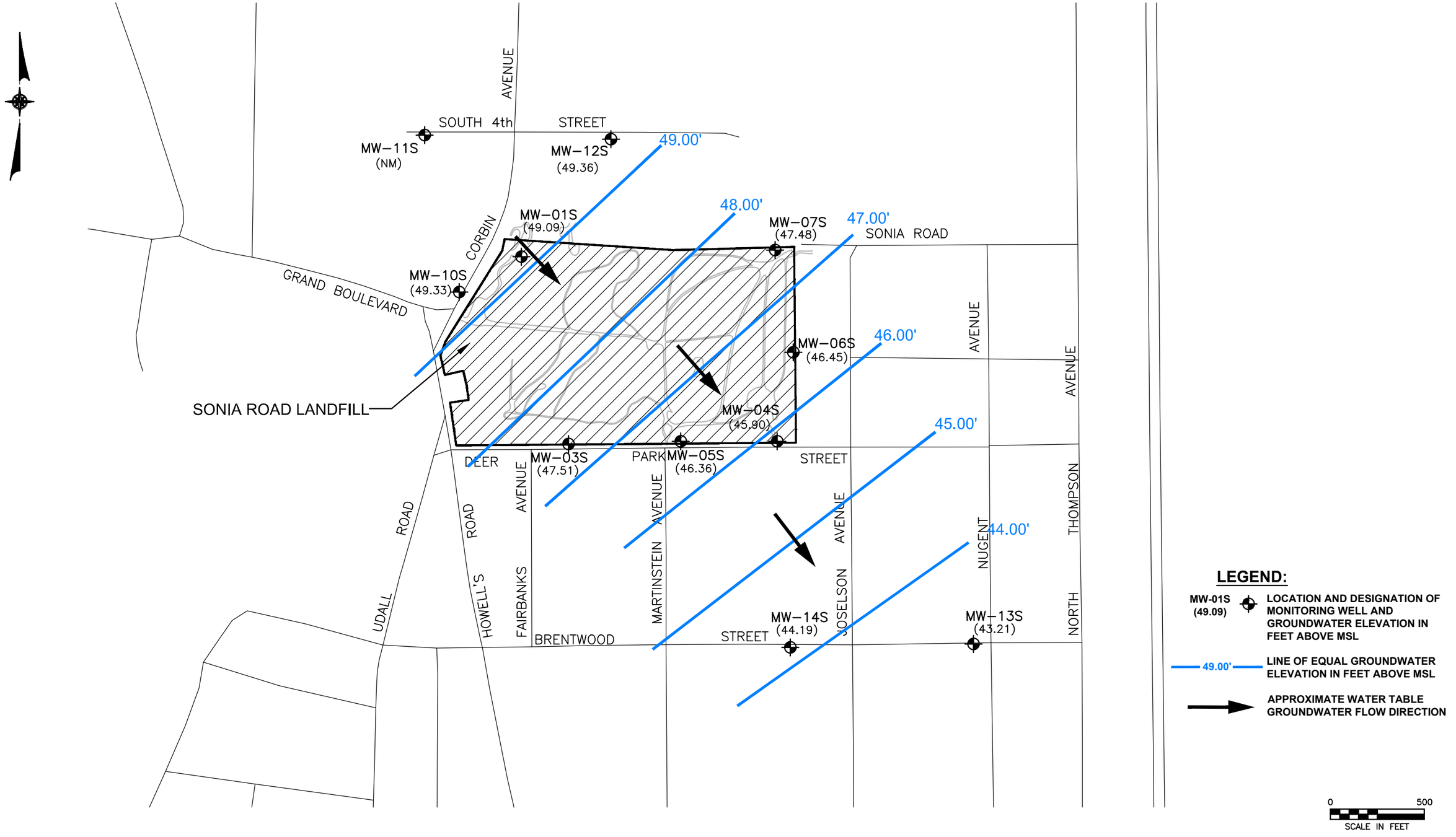
Regarding the vertical component of groundwater flow in the Upper Glacial aquifer, net differential hydraulic heads between monitoring wells within clusters in both upgradient and downgradient wells vary. Upgradient well cluster MW-10 located on the western side of the landfill, MW-02 located on the northern side of the landfill, and downgradient well clusters MW-03 and MW-13 exhibit a downward flow. Well cluster MW-05 located on the southern perimeter of the landfill exhibits an upward flow, and well clusters MW-01, MW-04, MW-06, MW-07, MW-12 and MW-14 essentially exhibit a horizontal flow.

Table 5-3

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS
JANUARY 24, 2025

Well	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point (feet)	Groundwater Elevation (feet above msl)
MW-01S	66.01	16.92	49.09
MW-01I	65.36	16.28	49.08
MW-01D	64.53	15.45	49.08
MW-02I	78.24	29.84	48.40
MW-02D	78.43	30.31	48.12
MW-03S	70.76	23.25	47.51
MW-03I	70.77	23.48	47.29
MW-03D	70.50	23.31	47.19
MW-04S	71.10	25.20	45.90
MW-04I	69.31	23.48	45.83
MW-04D	69.03	23.14	45.89
MW-05S	70.28	23.92	46.36
MW-05I	70.26	23.89	46.37
MW-05D	70.96	24.37	46.59
MW-06S	74.45	28.00	46.45
MW-06I	74.52	28.09	46.43
MW-06D	75.02	28.58	46.44
MW-07S	72.83	25.35	47.48
MW-07I	73.43	25.94	47.49
MW-07D	75.04	27.61	47.43
MW-10S	56.65	7.32	49.33
MW-10I	56.16	7.12	49.04
MW-10D	56.34	7.32	49.02
MW-11S	59.87	NM	NM
MW-11I	60.38	NM	NM
MW-11D	60.19	NM	NM
MW-12S	58.79	9.43	49.36
MW-12I	58.92	9.56	49.36
MW-12D	58.61	9.26	49.35
MW-13S	70.51	27.30	43.21
MW-13I	70.30	27.27	43.03
MW-13D	70.37	27.27	43.10
MW-14S	64.55	20.36	44.19
MW-14I	64.57	20.48	44.09
MW-14D	64.58	20.44	44.14

NM – Not measured. Monitoring well cluster MW-11 was not accessible due to snow and ice.



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SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
WATER TABLE CONTOUR MAP
JANUARY 24, 2025

FIGURE 5-3

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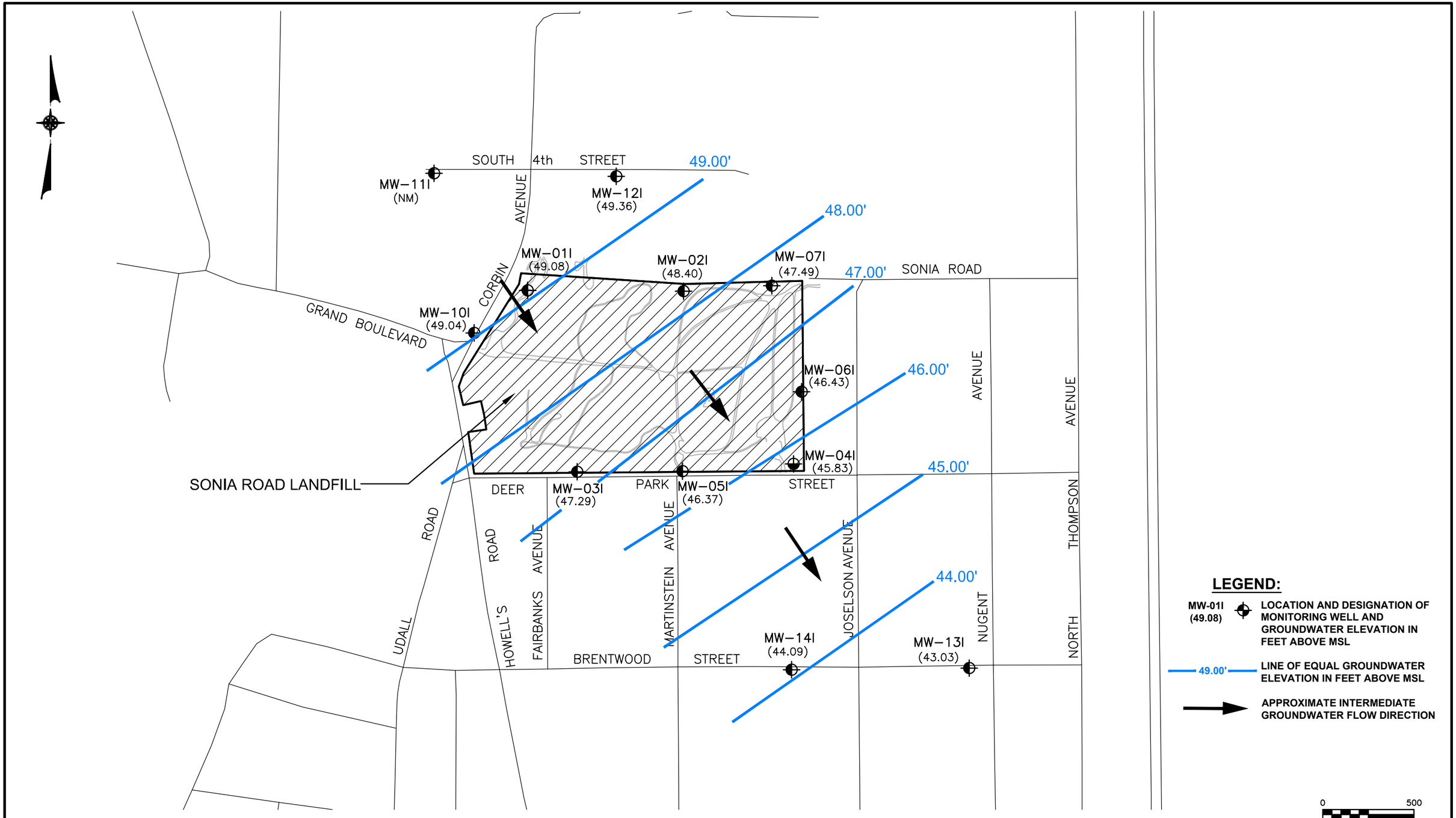

F:\56041\5604-3B\dwg\5604-3B-FIG 5-4.dwg, Layout 1, 7/29/2025 2:17:32 PM, zkaplan

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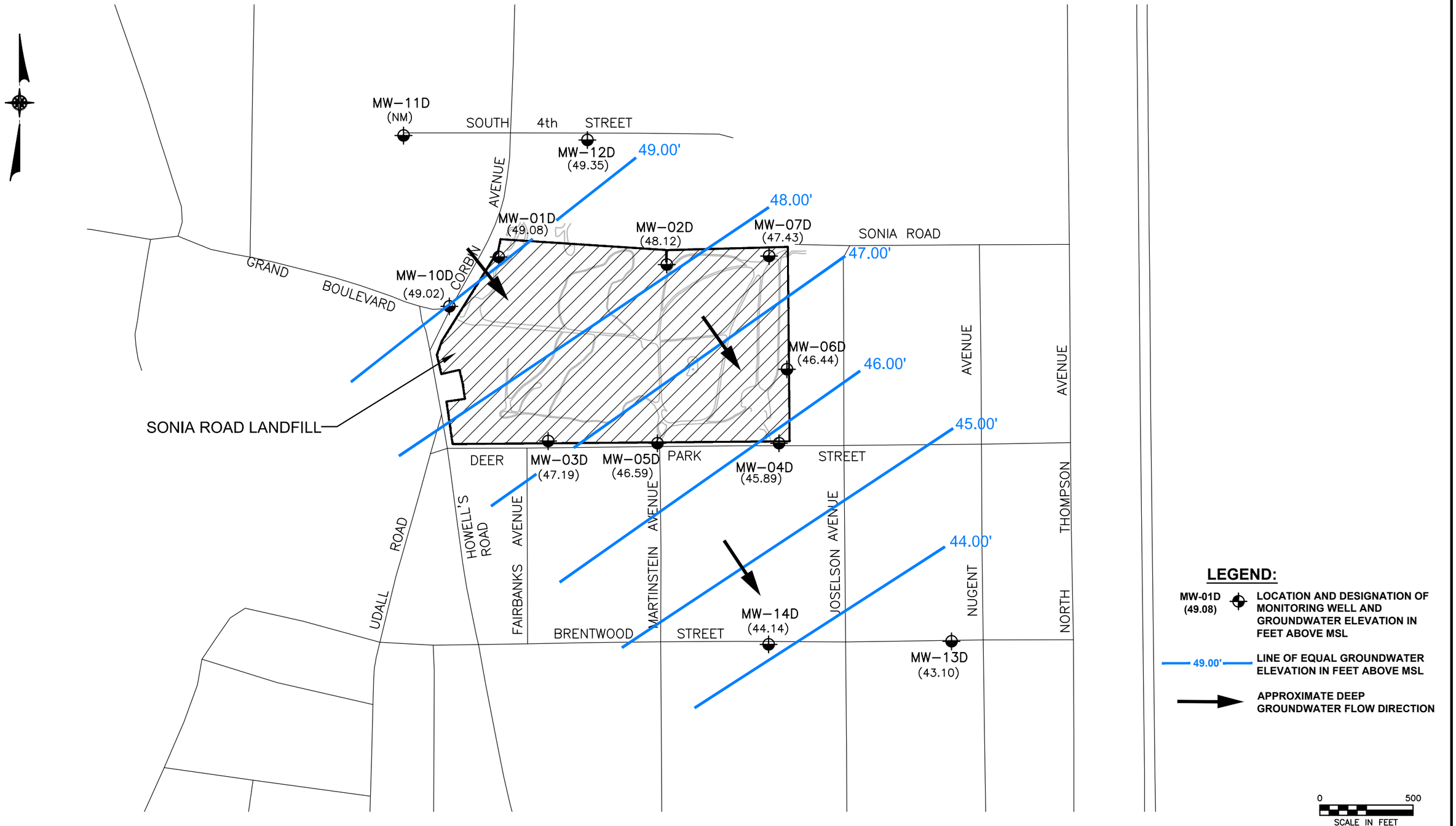
SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

POTENTIOMETERIC SURFACE ELEVATION CONTOUR MAP FOR INTERMEDIATE UPPER GLACIAL AQUIFER
JANUARY 24, 2025

FIGURE 5-4



D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

POTENTIOMETERIC SURFACE ELEVATION CONTOUR MAP FOR DEEP UPPER GLACIAL AQUIFER
JANUARY 24, 2025

FIGURE 5-5

F:\5604\5604-3B\dwg\5604-3B-FIG 5-5.dwg, Layout 1, 7/29/2025 2:20:44 PM, zkaplan

5.3 Field Parameters

A summary of the final field parameter values measured at the time of sample collection during the January 2025 sampling event is provided in **Table 5-4**. As shown in **Table 5-4**, pH was not measured at several sampling locations due to an equipment malfunction.

Field parameters are a potential indicator of the presence of leachate. Presented below is a brief summary of the field parameter results collected during the January 2025 sampling event.

- Temperature which can indicate the general water source and can be affected by seasonal fluctuation ranged from 12.43° Celsius (C) at upgradient monitoring well MW-12I to 16.89° C at monitoring well MW-1S. Higher groundwater temperatures at landfills are often the result of the decomposition of waste.

- pH which measures the acidity or alkalinity of water ranged from 6.18 at monitoring well MW-01D to 7.50 at monitoring well MW-07I which are both located on the north side of the landfill. Higher pH are often associated with older landfills due to the production of alkaline compounds during the decomposition process. The highest pH observed in downgradient monitoring wells was observed at MW-06I at 7.03.

- Specific conductance is a measurement of dissolved solids in water ranged from 0.149 mS/cm in monitoring well MW-07I to 2.91 mS/cm in monitoring well MW-01D which are both located on the north side of the landfill. Higher specific conductance is a typical indicator of leachate in landfills and varies based on the type of waste, age of landfill, moisture content and the presence of heavy metals.

- Turbidity which is an optical property of water clarity measured in nephelometric turbidity units (NTUs) ranged from 0 NTUs at several monitoring wells to 47.1 NTUs at MW-06S.

- Dissolved oxygen (DO) is an important indicator of the environmental conditions (aerobic/anerobic) and landfill leachate typically has a low DO. DO ranged from 0.0 mg/l at monitoring well MW-01S to 11.66 mg/l at monitoring well MW-2D which are both located on the north side of the landfill.

- Oxidation Reduction Potential (ORP) is the measure of how likely a solution is to give or receive electrons. In the case of landfill leachate enriched groundwater, the ORP measurement will be generally governed by the level of dissolved oxygen (DO) in the groundwater sample. ORP ranged from -32 millivolts (mV) at monitoring well MW-01S to 158 mV at upgradient monitoring well MW-02D.

Table 5-4

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY OF FINAL FIELD PARAMETER RESULTS
JANUARY 2025 SAMPLING EVENT

Monitoring Well	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	DO (mg/l)	Temperature (ºC)	ORP (mV)
MW-01S	6.24	2.25	0.0	0.00	16.89	-32
MW-01I	6.29	1.91	0.0	0.06	14.66	116
MW-01D	6.18	2.91	0.0	0.06	14.29	158
MW-02I	6.42	1.83	0.0	1.17	15.80	134
MW-02D	6.19	2.77	0.0	11.66	14.99	167
MW-03S	NM	0.862	18.5	1.24	15.79	72
MW-04S	NM	1.16	14.9	0.69	15.07	23
MW-04I	NM	0.636	16.7	1.63	14.30	36
MW-04D	NM	0.489	0.0	1.79	14.16	50
MW-05S	NM	1.21	22.5	1.26	15.96	26
MW-05I	NM	0.695	0.8	4.62	14.42	47
MW-05D	6.83	0.298	3.2	8.12	13.21	84
MW-06S	NM	0.874	47.1	1.96	16.86	100
MW-06I	7.03	0.576	0.0	0.18	15.56	42
MW-06D	6.49	0.402	0.0	1.04	15.22	123
MW-07I	7.50	0.149	0.0	1.82	15.90	27
MW-11S	NM	NM	NM	NM	NM	NM
MW-11I	NM	NM	NM	NM	NM	NM
MW-11D	NM	NM	NM	NM	NM	NM
MW-12S	7.28	0.519	0.0	2.75	14.26	-5
MW-12I	7.38	0.444	4.1	1.33	12.43	27
MW-12D	6.56	0.340	1.8	3.84	14.12	89

Notes:
mg/l: Milligrams per liter
mS/cm: Millisiemens per centimeter
NTUs: Nephelometric turbidity units
mV: Millivolts
ºC: Degrees Celsius
ORP: Oxidation reduction potential
DO: Dissolved oxygen
NM: Not measured

5.4 Groundwater Monitoring Well Results

The analytical results for the groundwater samples collected during the January 2025 sampling event, compared to NYSDEC Class GA groundwater standards and guidance values, are provided in **Appendix B-1** (leachate indicators), **Appendix B-2** (inorganic parameters), **Appendix B-3** (volatile organic compounds). Historic sample results from 2007 to December 2023 are also included in these tables. Historical data from 1996 to 2006 have been provided to the NYSDEC in previous post closure groundwater monitoring reports.

Also included are graphics presented in **Appendix B-4**, depicting the estimated concentration of key landfill leachate indicator parameters (alkalinity, ammonia, chloride, conductivity, iron, manganese and total dissolved solids) in groundwater by contouring groundwater concentrations and creating an isopleth map using data for each well cluster. The leachate indicator isopleth map has been prepared for each aquifer zone including the shallow upper glacial aquifer, intermediate upper glacial aquifer, and deep upper glacial aquifer.

5.4.1 Leachate Indicators

As shown in **Appendix B-1**, two leachate indicators (ammonia and total phenolics) were detected in one or more wells at concentrations exceeding NYSDEC Class GA groundwater standards. The differences in leachate indicator concentrations for the January 2025 sampling event compared to the previous November and December 2023 sampling event are summarized in **Table 5-5**. 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 ammonia were graphed for the shallow, intermediate and deep zones for upgradient wells and downgradient wells. These graphs are presented in **Appendix C**. The leachate indicators which exhibited concentrations exceeding NYSDEC Class GA groundwater standards or guidance values are discussed below and shown on **Figure 5-6**.

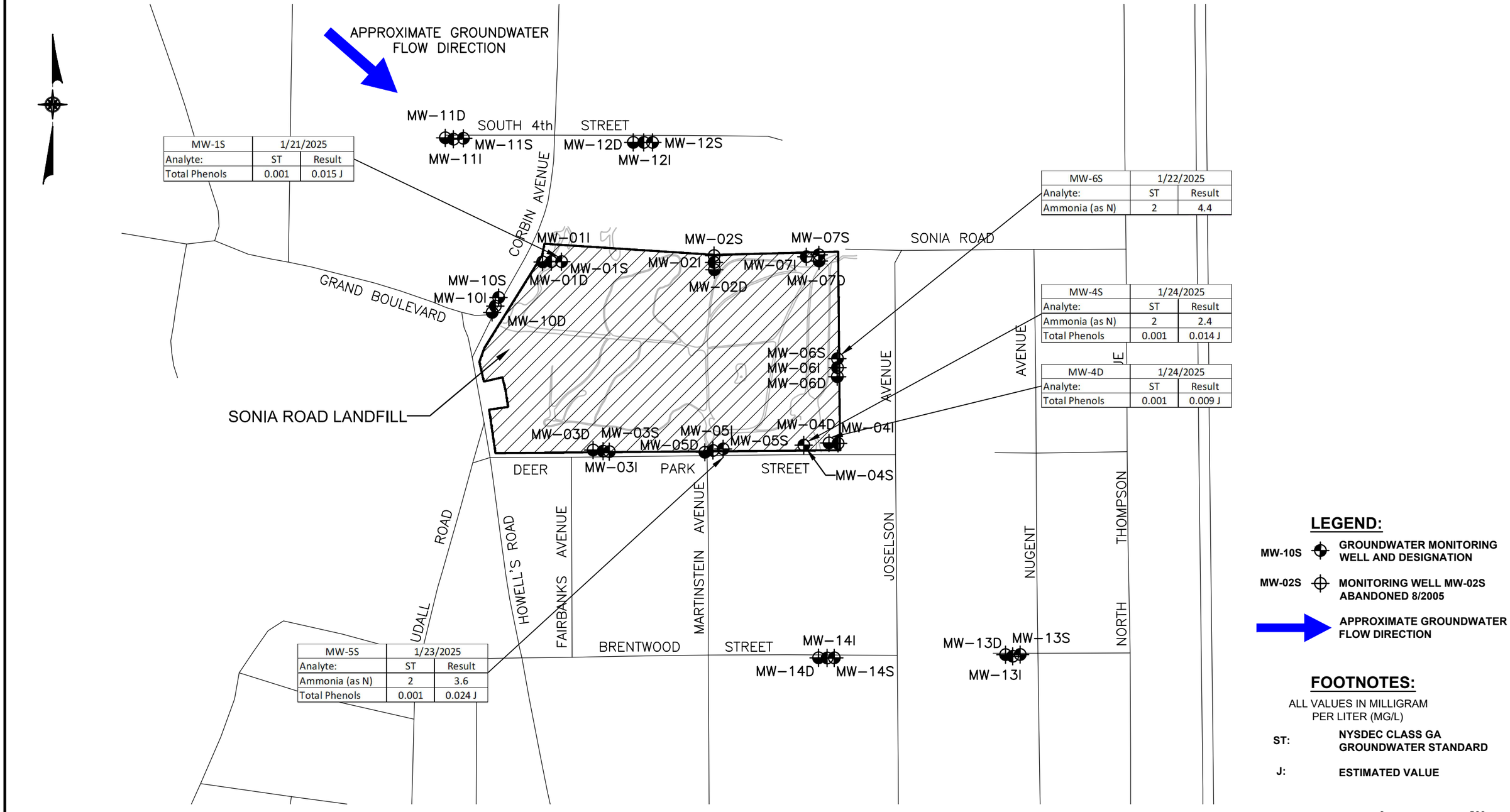
Table 5-5

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY COMPARISON OF 2023 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	I	I	D	D	C	I	D	I	C	C	C	C
MW-01I	Upgradient	C	C	C	C	D	D	D	I	I	I	D	C	D
MW-01D	Upgradient	D	C	C	C	D	D	D	D	C	D	C	D	D
MW-02I	Upgradient	I	D	C	D	D	I	I	C	C	I	D	I	D
MW-02D	Upgradient	C	C	C	D	D	I	I	I	D	C	D	I	C
MW-03S	Downgradient	C	I	C	I	I	C	I	I	D	D	I	C	I
MW-04S	Downgradient	C	D	I	I	C	C	C	C	I	C	C	C	C
MW-04I	Downgradient	C	D	D	D	D	C	C	I	I	I	D	C	D
MW-04D	Downgradient	D	C	C	D	I	C	C	D	I	D	D	D	D
MW-05S	Downgradient	I	I	I	I	I	I	I	C	I	C	I	C	I
MW-05I	Downgradient	I	D	D	D	I	I	I	I	C	I	C	C	D
MW-05D	Downgradient	C	C	C	D	I	C	C	C	D	D	D	D	D
MW-06S	Side gradient	I	I	I	I	I	D	D	C	I	C	I	I	I
MW-06I	Side gradient	C	I	C	D	I	C	D	C	I	D	C	C	I
MW-06D	Side gradient	I	C	C	D	C	C	C	C	C	C	D	D	C
MW-07I	Upgradient	I	C	C	C	D	D	C	D	D	D	I	C	D
MW-11S	Upgradient	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-11I	Upgradient	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-11D	Upgradient	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-12S	Upgradient	C	D	C	D	I	C	C	I	I	I	C	C	I
MW-12I	Upgradient	C	D	D	C	C	I	C	C	I	I	C	C	D
MW-12D	Upgradient	I	C	C	C	I	I	I	D	I	C	I	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.

BOD: Biochemical Oxygen Demand
COD: Chemical Oxygen Demand
TOC: Total Organic Carbon
TKN: Total Kjeldahl Nitrogen



MW-1S	1/21/2025	
Analyte:	ST	Result
Total Phenols	0.001	0.015 J

MW-6S	1/22/2025	
Analyte:	ST	Result
Ammonia (as N)	2	4.4

MW-4S	1/24/2025	
Analyte:	ST	Result
Ammonia (as N)	2	2.4
Total Phenols	0.001	0.014 J

MW-4D	1/24/2025	
Analyte:	ST	Result
Total Phenols	0.001	0.009 J

MW-5S	1/23/2025	
Analyte:	ST	Result
Ammonia (as N)	2	3.6
Total Phenols	0.001	0.024 J

LEGEND:

- MW-10S — GROUNDWATER MONITORING WELL AND DESIGNATION
- MW-02S — MONITORING WELL MW-02S ABANDONED 8/2005
- APPROXIMATE GROUNDWATER FLOW DIRECTION

FOOTNOTES:

ALL VALUES IN MILLIGRAM PER LITER (MG/L)

- ST: NYSDEC CLASS GA GROUNDWATER STANDARD
- J: ESTIMATED VALUE

0 500
SCALE IN FEET

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POST CLOSURE GROUNDWATER MONITORING PROGRAM

2025 GROUNDWATER ANALYTICAL EXCEEDANCES - LEACHATE INDICATORS

SCALE: 1" = 500'

FIGURE 5-6

F:\5604-1B\dwg\5604-1B-23-FIG 5-6-Sonia Landfill.dwg, Layout 1, 7/29/2025 2:21:39 PM, zkaplan

Ammonia

Ammonia slightly exceeded the groundwater standard of 2 milligrams per liter (mg/l) in downgradient wells MW-4S, MW-5S, and MW-6S, at concentrations of 2.4 mg/l, 3.6 mg/l, and 4.4 mg/l, respectively. These results are all below the historically high concentrations observed and ammonia concentrations at these locations are trending downward. It should be noted that increases for these wells exceeding the groundwater standard were observed at monitoring well MW-4S from 2.4 mg/l in 2023 to 3.6 mg/l in 2025 and at MW-6S from 0.59 mg/l in 2023 to 4.4 mg/l in 2025. A decrease was observed at monitoring well MW-4S from 3.4 mg/l in 2023 to 2.4 mg/l in 2025.

Total Phenolics

Total phenolics slightly exceeded the groundwater standard of 0.001 mg/l in upgradient well MW-01S at a concentration of 0.015 J mg/l and at downgradient monitoring wells MW-04S, MW-04D and MW-05S at concentrations of 0.014 J mg/l, 0.009 J mg/l and 0.024 mg/l, respectively. These results are all below the historically high concentrations observed and total phenolic concentrations at these locations are trending downward. Increases were observed for these wells exceeding the groundwater standard.

5.4.2 Inorganic Parameters

As shown in **Appendix B-2**, seven metals (cadmium, total chromium, iron, manganese, nickel, selenium and sodium) were detected in one or more wells at concentrations exceeding NYSDEC Class GA groundwater standards or guidance values. The differences in inorganic parameter concentrations for the November and December 2023 sampling event compared to the previous August to September 2022 sampling event are summarized in **Table 5-6.** 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. A discussion of individual trends for each constituent that exceeded the groundwater standard is provided below

Table 5-6

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY COMPARISON OF 2023 SAMPLING EVENT TO PREVIOUS SAMPLING EVENT FOR INORGANIC PARAMETERS

Well	Location	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Hexavalent Chromium
MW-01S	Upgradient	I	C	I	I	C	C	I	I	C
MW-01I	Upgradient	C	C	C	I	C	C	D	D	C
MW-01D	Upgradient	D	C	C	I	C	D	D	D	C
MW-02I	Upgradient	I	C	C	C	C	C	C	I	C
MW-02D	Upgradient	I	C	C	C	C	I	C	I	C
MW-03S	Downgradient	I	C	C	I	C	C	I	I	C
MW-04S	Downgradient	D	C	D	D	C	C	D	C	C
MW-04I	Downgradient	D	C	D	C	C	C	D	I	C
MW-04D	Downgradient	D	C	C	C	C	D	D	C	C
MW-05S	Downgradient	I	C	C	I	C	I	C	I	C
MW-05I	Downgradient	C	C	C	C	C	I	C	I	C
MW-05D	Downgradient	C	C	C	I	C	D	D	C	C
MW-06S	Side gradient	I	C	C	I	C	I	C	I	C
MW-06I	Side gradient	I	C	C	I	C	C	C	C	C
MW-06D	Side gradient	I	C	C	I	C	C	C	C	C
MW-07I	Upgradient	D	C	C	D	C	C	C	C	C
MW-11S	Upgradient	-	-	-	-	-	-	-	-	-
MW-11I	Upgradient	-	-	-	-	-	-	-	-	-
MW-11D	Upgradient	-	-	-	-	-	-	-	-	-
MW-12S	Upgradient	I	I	C	I	C	C	I	C	C
MW-12I	Upgradient	C	C	I	C	C	C	I	C	C
MW-12D	Upgradient	I	C	C	C	C	C	I	I	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 5-6 (continued)

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY COMPARISON OF 2023 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	C	D	C	C	I	I	C	I
MW-01I	Upgradient	D	C	C	C	C	D	C	C	C
MW-01D	Upgradient	C	C	D	D	D	D	I	C	D
MW-02I	Upgradient	D	C	C	C	C	I	D	C	I
MW-02D	Upgradient	D	C	C	C	C	I	D	C	I
MW-03S	Downgradient	D	C	C	I	I	I	C	C	I
MW-04S	Downgradient	C	C	D	D	I	C	C	C	C
MW-04I	Downgradient	C	C	D	C	C	C	D	C	I
MW-04D	Downgradient	C	C	C	C	C	C	I	C	I
MW-05S	Downgradient	I	C	I	I	C	I	C	C	I
MW-05I	Downgradient	I	C	I	I	I	I	D	C	I
MW-05D	Downgradient	I	C	C	D	D	C	C	C	I
MW-06S	Side gradient	I	C	I	I	C	I	I	C	I
MW-06I	Side gradient	I	C	D	D	C	D	D	C	C
MW-06D	Side gradient	I	C	C	C	C	C	I	C	I
MW-07I	Upgradient	D	I	D	D	C	C	D	C	D
MW-11S	Upgradient	-	-	-	-	-	-	-	-	-
MW-11I	Upgradient	-	-	-	-	-	-	-	-	-
MW-11D	Upgradient	-	-	-	-	-	-	-	-	-
MW-12S	Upgradient	I	I	I	I	I	C	I	C	I
MW-12I	Upgradient	D	C	D	C	D	C	C	C	I
MW-12D	Upgradient	D	C	I	I	C	C	I	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.

Table 5-6 (continued)

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY COMPARISON OF 2023 SAMPLING EVENT TO
PREVIOUS SAMPLING EVENT FOR INORGANIC PARAMETERS

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

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 C** and the inorganic parameters which exhibited concentrations exceeding NYSDEC Class GA groundwater standards or guidance values are discussed below and shown on **Figure 5-7**.

Antimony

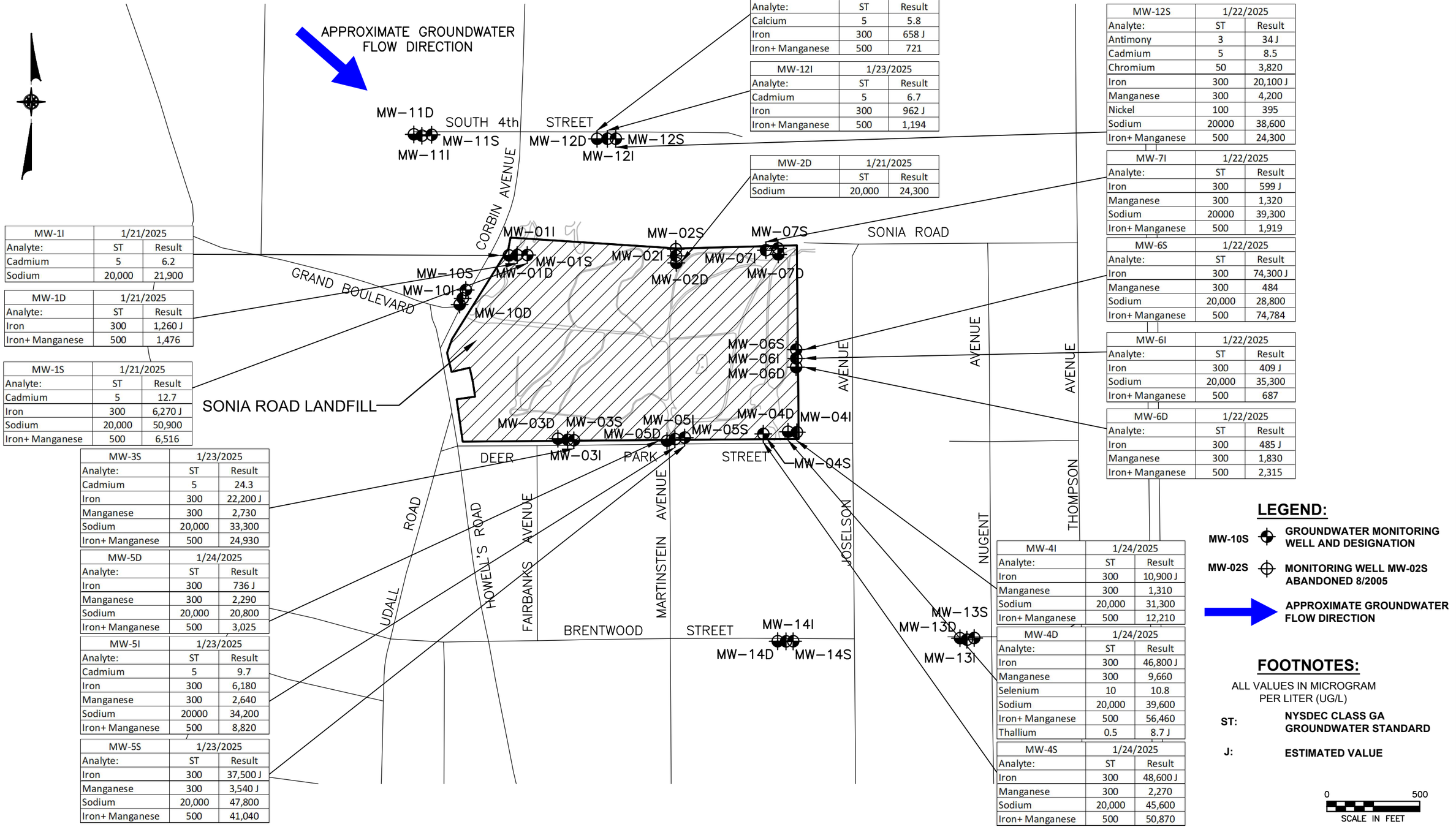
The groundwater guidance value for antimony of 3 ug/l was exceeded in upgradient monitoring well MW-12S at a concentration of 34 ug/l. Antimony was previously detected at this location in 2013 and 2015 at concentrations of 6.04 J ug/l and 6.6 J ug/l, respectively.

Cadmium

The groundwater standard for cadmium of 5 ug/l was exceeded in six monitoring wells (MW-01S, MW-01I, MW-03S, MW-05I, MW-12S, MW-12I and MW-12D). Cadmium concentrations increased in four upgradient monitoring wells that exceeded the groundwater standard with a maximum concentration observed at monitoring well MW-1S (12.7 ug/l). Cadmium concentrations increased in one downgradient monitoring well (MW-03S) at a concentration of 24.3 ug/l, which was the highest concentration observed during this reporting period. In 2023, the highest cadmium concentration of 11.5 ug/l was observed at downgradient monitoring well MW-5D.

Total Chromium

The groundwater standard for total chromium of 50 ug/l was exceeded in upgradient monitoring well MW-12S at a concentration of 3,820 ug/l, which is up from 1,050 ug/l observed at this location in 2023. This monitoring well was the only locations where an exceedance of the groundwater standard and an increase was observed. This was the seventh exceedance at MW-12S in 15 monitoring events going back to November 2008. The previous highest total chromium concentration at this upgradient monitoring wells was observed in May 2011 at a concentration of 1,350 ug/l.



MW-12D	1/23/2025	
Analyte:	ST	Result
Calcium	5	5.8
Iron	300	658 J
Iron+ Manganese	500	721

MW-12I	1/23/2025	
Analyte:	ST	Result
Cadmium	5	6.7
Iron	300	962 J
Iron+ Manganese	500	1,194

MW-2D	1/21/2025	
Analyte:	ST	Result
Sodium	20,000	24,300

MW-12S	1/22/2025	
Analyte:	ST	Result
Antimony	3	34 J
Cadmium	5	8.5
Chromium	50	3,820
Iron	300	20,100 J
Manganese	300	4,200
Nickel	100	395
Sodium	20000	38,600
Iron+ Manganese	500	24,300

MW-7I	1/22/2025	
Analyte:	ST	Result
Iron	300	599 J
Manganese	300	1,320
Sodium	20000	39,300
Iron+ Manganese	500	1,919

MW-6S	1/22/2025	
Analyte:	ST	Result
Iron	300	74,300 J
Manganese	300	484
Sodium	20,000	28,800
Iron+ Manganese	500	74,784

MW-6I	1/22/2025	
Analyte:	ST	Result
Iron	300	409 J
Sodium	20,000	35,300
Iron+ Manganese	500	687

MW-6D	1/22/2025	
Analyte:	ST	Result
Iron	300	485 J
Manganese	300	1,830
Iron+ Manganese	500	2,315

MW-1I	1/21/2025	
Analyte:	ST	Result
Cadmium	5	6.2
Sodium	20,000	21,900

MW-1D	1/21/2025	
Analyte:	ST	Result
Iron	300	1,260 J
Iron+ Manganese	500	1,476

MW-1S	1/21/2025	
Analyte:	ST	Result
Cadmium	5	12.7
Iron	300	6,270 J
Sodium	20,000	50,900
Iron+ Manganese	500	6,516

MW-3S	1/23/2025	
Analyte:	ST	Result
Cadmium	5	24.3
Iron	300	22,200 J
Manganese	300	2,730
Sodium	20,000	33,300
Iron+ Manganese	500	24,930

MW-5D	1/24/2025	
Analyte:	ST	Result
Iron	300	736 J
Manganese	300	2,290
Sodium	20,000	20,800
Iron+ Manganese	500	3,025

MW-5I	1/23/2025	
Analyte:	ST	Result
Cadmium	5	9.7
Iron	300	6,180
Manganese	300	2,640
Sodium	20000	34,200
Iron+ Manganese	500	8,820

MW-5S	1/23/2025	
Analyte:	ST	Result
Iron	300	37,500 J
Manganese	300	3,540 J
Sodium	20,000	47,800
Iron+ Manganese	500	41,040

MW-4I	1/24/2025	
Analyte:	ST	Result
Iron	300	10,900 J
Manganese	300	1,310
Sodium	20,000	31,300
Iron+ Manganese	500	12,210

MW-4D	1/24/2025	
Analyte:	ST	Result
Iron	300	46,800 J
Manganese	300	9,660
Selenium	10	10.8
Sodium	20,000	39,600
Iron+ Manganese	500	56,460
Thallium	0.5	8.7 J

MW-4S	1/24/2025	
Analyte:	ST	Result
Iron	300	48,600 J
Manganese	300	2,270
Sodium	20,000	45,600
Iron+ Manganese	500	50,870

LEGEND:

- **MW-10S** — GROUNDWATER MONITORING WELL AND DESIGNATION
- **MW-02S** — MONITORING WELL MW-02S ABANDONED 8/2005
- APPROXIMATE GROUNDWATER FLOW DIRECTION

FOOTNOTES:

ALL VALUES IN MICROGRAM PER LITER (UG/L)

- **ST:** NYSDEC CLASS GA GROUNDWATER STANDARD
- **J:** ESTIMATED VALUE

0 500
SCALE IN FEET

D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

2025 GROUNDWATER ANALYTICAL EXCEEDANCES - INORGANIC PARAMETERS

SCALE: 1" = 500'

FIGURE 5-7

F:\5604-1B\dwg\5604-1B-23-FIG 5-7-Sonia Landfill.dwg, Layout 1, 7/29/2025 2:23:12 PM, zkaplan

Iron

The groundwater standard for iron of 300 ug/l was exceeded in sixteen monitoring wells (MW-01S, MW-01D, MW-03S, MW-04S, MW-04I, MW-04D, MW-05S, MW-05I, MW-05D, MW-06S, MW-06I, MW-06D, MW-07I, MW-12S, MW-12I and MW-12D). Iron concentrations detected in these wells ranged from 409 J ug/l in side gradient monitoring well MW-6I to 74,300 J ug/l in side gradient monitoring well MW-06S. Concentration of iron at MW-6S were observed at 60,800 ug/l in 2022 and 30,300 ug/l in 2023. As shown in Table 5-4 above, turbidity in this sample was reported at 47.1 NTUs which may account for the increase in 2025. Of the 16 monitoring wells that exceeded the groundwater standard for iron, six monitoring wells showed an increase, five remained constant and five showed a decrease in concentration.

Manganese

The groundwater standard for manganese of 300 ug/l was exceeded in eleven monitoring wells (MW-03S, MW-04S, MW-04I, MW-04D, MW-05S, MW-05I, MW-05D, MW-06S, MW-06D, MW-07I, and MW-12S). Manganese concentrations detected in these wells ranged from 484 ug/l in MW-06S to 9,660 ug/l in MW-04D. Of the 11 monitoring wells that exceeded the groundwater standard for manganese, four monitoring wells showed an increase, four remained constant and three showed a decrease in concentration. Of the monitoring wells exhibiting an increase, the highest upgradient concentration was observed at monitoring well MW-12S at 4,200 ug/l and the highest downgradient concentration was observed at monitoring well MW-4D at 9,660 ug/l.

Iron and Manganese

The groundwater standard for the sum of iron and manganese of 500 ug/L was exceeded in sixteen wells (MW-1S, MW-1D, MW-3S, MW-4S, MW-4I, MW-4D, MW-5S, MW-5I, MW-5D, MW-6S, MW-6I, MW-6D, MW-7I, MW-12S, MW-12I and MW-12D). The combined concentration of iron and manganese detected in these wells ranged from 687 ug/L in side gradient monitoring well MW-6I to 74,7840 ug/L in side gradient monitoring well MW-6S. Of

the 16 monitoring wells that exceeded the groundwater standard for iron and manganese, six monitoring wells showed an increase, six remained constant and four showed a decrease in concentration. Of the monitoring wells exhibiting an increase, the highest upgradient concentration was observed at monitoring well MW-12S at 24,300 ug/l and the highest downgradient concentration was observed at monitoring well MW-4D at 56,400 ug/l.

Nickel

The groundwater standard for nickel of 100 ug/l was exceeded in upgradient monitoring well MW-12S at a concentration of 395 ug/l, which was the monitoring well that exceeded the standard and exhibited an increase.

Selenium

The groundwater standard for selenium of 10 ug/l was slightly exceeded in downgradient monitoring well MW-04D at a concentration of 10.8 ug/l, which was consistent with results from the previous monitoring period.

Sodium

The groundwater standard for sodium of 20,000 ug/l was exceeded in fourteen monitoring wells (MW-01S, MW-1I, MW-2D, MW-03S, MW-04S, MW-04I, MW-04D, MW-05S, MW-5I, MW-05D, MW-06S, MW-06I, MW-07I, and MW-12S). Sodium concentrations detected in these monitoring wells ranged from 20,800 ug/l in downgradient monitoring well MW-05D to 50,900 ug/l in upgradient monitoring well MW-01S. Of the 14 monitoring wells that exceeded the groundwater standard for sodium, seven monitoring wells showed an increase, five remained constant and two showed a decrease in concentration.

Thallium

The groundwater guidance value for thallium of 0.5 ug/l was exceeded in downgradient well MW-4D at a concentration of 8.7 J ug/l. Thallium has occasionally been detected in monitoring wells exceeding the guidance value with the maximum upgradient exceedance observed at monitoring well MW-12D at a concentration of 8.3 J ug/l in 2020 and the maximum downgradient exceedance observed at monitoring well MW-5S at a concentration of 8.8 J ug/l in 2018.

The January 2025 sampling results exhibited one or more of the following inorganic parameters: antimony (1 well), cadmium (7 wells), total chromium (1 well), iron (16 wells), manganese (11 wells), iron and manganese (16 wells), nickel (1 well), selenium (1 well) and sodium (14 wells) at concentrations exceeding their respective groundwater standard/guidance value. A portion of the detected concentrations of several inorganic parameters are most likely not indicative of landfill influenced groundwater, since concentrations of these parameters exceeding groundwater standards were also detected in monitoring wells located both upgradient and downgradient of the Landfill.

5.4.3 Volatile Organic Compounds

Volatile organic compounds (VOCs) were analyzed and compared against NYSDEC Class GA groundwater standards or guidance values for the 19 wells sampled during the January 2025 sampling event. As shown in **Appendix B-3**, 15 of the 19 wells contained no detectable concentrations of VOCs. Four VOCs were detected including chlorobenzene (MW-4S, MW-6S), chloroform (MW-5D), cis-1,2-dichloroethene (MW-2I), and 1,4-dichlorobenzene (MW-6S). Of the four detectable concentrations, no VOCs were detected above groundwater standards or guidance values in any of the monitoring wells. The highest total VOC concentration was observed at side gradient monitoring well MW-6S at a concentration of 7.4 ug/l.

5.5 Documentation, Data Reduction and Reporting

5.5.1 Electronic Data Deliverables

As indicated above, laboratory analyses were performed by Pace Analytical of Melville, NY, a NYSDOH ELAP certified laboratory meeting the New York State requirements for documentation, data reduction and reporting. All data was cataloged according to sampling locations and sample identification nomenclature. The laboratory analysis was reported in the NYSDEC ASP Category B deliverables format. In addition, the laboratory provided an electronic data deliverable (EDD) for each data set in the most current NYSDEC EQuIS format, which was submitted to the NYSDEC EQuIS database portal.

5.5.2 Data Validation

Nineteen (19) groundwater samples, one blind duplicate sample, one matrix spike/matrix spike duplicate (MS/MSD) sample set, four trip blanks and one field blank was collected as part of the January 2025 Post Closure Groundwater Monitoring Program sampling event at the Sonia Road Landfill. The groundwater samples were collected on January 21 through 24, 2025. All groundwater samples were analyzed for Baseline NYCRR 360 VOCs, inorganic parameters and leachate indicators. Laboratory analyses were performed by Pace Analytical, Melville, NY and phenolics by Westborough, MA. All analyses were performed in accordance with United States Environmental Protection Agency (USEPA) SW-846 and New York State Department of Environmental Conservation (NYSDEC) 6/05 Analytical Services Protocol (ASP) methodologies as specified in NYCRR Part 363.

A data package [70333947(L2503755, L2504039, L2504335)] has been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/Quality Control (QA/QC) requirements. In accordance with the contract requirements and approved Sampling and Analysis Plan, 10 percent of the environmental samples and all the QA/QC samples (calibrations, blanks, spikes, etc.) were reviewed, yielding a “10%” validation”. While all samples were reviewed for transcription errors, calculations were verified for three environmental samples (MW-1I, MW-

06D and MW-04S), as well as all QA/QC data, were reviewed for compliance with analytical specifications. Data Validation Checklists were prepared for each data package and are presented in **Appendix D**.

The findings of the review process are summarized below:

- Acetone was detected in TRIP BLANK 1/21/25, TRIP BLANK 1/22/25, and FIELD BLANK. Acetone was qualified as non-detect (UB) in samples MW-01S, MW-12S, MW-12I, MW-05S, MW-05I, and MW-04S.

- The percent recovery (%R) was below the quality control (QC) limit for vinyl acetate in the matrix spike (MS) and matrix spike duplicate (MSD) associated with samples BLIND DUPLICATE, TRIP BLANK 1/24/2025, and MW-12I and was qualified as an estimated limit (UJ).

- The percent differences (%Ds) were above the QC limits for acetone, 2-butanone (MEK), 2-hexanone, and vinyl acetate associated with samples MW-01I, MW-02D, MW-02I, and TRIP BLANK 1/21/25; and vinyl acetate associated with samples TRIP BLANK 1/24/25, MW-12I, and BLIND DUPLICATE. They were qualified as an estimated limit (UJ) in associated samples.

- The %R was below the QC limit for the CRDL standard for iron and was qualified as estimated (J) in all samples.

- The following exceeded the holding time requirements and were qualified as an estimated limit (UJ): hexavalent chromium in samples BLIND DUPLICATE, MW-03S, MW-05S, MW-12D, and MW-12I.

- Phenolics was detected in the lab blank and was qualified as non-detect (UB) in sample MW-06D.

- The %Rs were above the QC limits in the MS and were qualified as estimated (J) for sulfate in samples MW-01S, MW-01I, MW-01D, MW-02D, MW-02I, MW-07I, MW-06D, MW-06I, and MW-12S; and total kjeldahl nitrogen in samples MW-06I and MW-06S.

- The %Rs were below the QC limits in the MS for and were qualified as estimated (J/UJ): nitrate in samples MW-01S, MW-01I, MW-01D, MW-02D, MW-02I, MW-06D, MW-06I, MW-06S, MW-12S, MW-05D, FIELD BLANK, MW-04I, MW-04D, MW-04S, and BLIND DUPLICATE.

- Sample MW-04I was field duplicated and labeled as BLIND DUPLICATE. The relative percent difference (RPD) was above QC limits and qualified as estimated (J/UJ) in samples MW-04I and BLIND DUPLICATE for chloride and total kjeldahl nitrogen.

Based on the findings of the data validation process, all results are deemed valid and usable for environmental assessment purposes as qualified above.

5.6 Landfill Gas Monitoring Evaluation

Pursuant to 6 NYCRR Part 360 – 2.17 regulations, the Landfill Complex utilizes an active landfill gas collection/control system to manage and reduce the potential for off-site migration of landfill gas. The IRRA monitors for methane gas from both monitoring wells placed along the perimeter of the Landfill site and from gas extraction wells and systems within the Landfill complex.

As indicated above, landfill gas monitoring is performed monthly at 17 locations around the perimeter of the landfill using a Landtec GEM 5000 Gas Analyzer. These monitoring locations are shown on **Figure 5-2**. Methane was not detected in any of the 17 landfill gas monitoring wells in 10 of 12 monitoring events and at relatively low concentrations at the blower. Methane was detected at two landfill gas monitoring wells in February 2025 at a maximum concentration of 0.4 percent and at four landfill gas monitoring wells in March 2025 at a maximum concentration of 6.4 percent. Blower reading for percent methane ranged from 0.0 to 6.4 percent, with an average over the reporting period of 5.4.2 percent. Monthly landfill gas monitoring results are provided in **Appendix E**. These results are consistent with historical monitoring results.

In addition, prior to collecting synoptic water level measurements as part of the 15-month rotating groundwater monitoring activities, volatile organic vapor and combustible gas monitoring is conducted at each monitoring well. Volatile organic vapor and combustible gas measurements were collected at all 35 monitoring wells on November 28, 2023. The volatile organic vapor and combustible gas headspace screening monitoring results are presented in **Table 5-7** (below). Volatile organic vapors were not detected in the headspace of 30 of 35 groundwater monitoring wells and combustible gas readings for all groundwater monitoring wells were recorded at 0% of the Lower Explosive Limit (LEL). Volatile organic vapor

detections in the 5 remaining wells were all at 0.1 ppm. In general, these results are consistent with historical monitoring results.

Based upon the results during this reporting period, landfill gas is not migrating beyond the Landfill boundary. VOCs have not been detected at the four ambient air locations. It is concluded that the active landfill gas collection/control system is operating effectively. Based on these findings, there are no known deficiencies with the landfill gas management system.

Table 5-7

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
VOLATILE ORGANIC VAPOR AND COMBUSTIBLE GAS RESULTS
NOVEMBER/DECEMBER 2023 SAMPLING EVENT

Well Number	PID (ppm)	Combustible Gas (% LEL)
MW-01D	0.0	0
MW-01I	0.1	0
MW-01S	0.0	0
MW-02D	0.0	0
MW-02I	0.0	0
MW-03S	0.1	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	--	--
MW-11I	--	--

Table 5-7 (continued)

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
VOLATILE ORGANIC VAPOR AND COMBUSTIBLE GAS RESULTS
NOVEMBER/DECEMBER 2023 SAMPLING EVENT

Well Number	PID (ppm)	Combustible Gas (% LEL)
MW-11S	--	--
MW-12D	0.0	0
MW-12I	0.0	0
MW-12S	0.0	0
MW-13D	0.1	0
MW-13I	0.1	0
MW-13S	0.1	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 combustible gas readings were measured in the headspace of the monitoring wells.
-- Not collected due to ice and snow.

6.0 MONITORING AND MAINTENANCE PLAN COMPLIANCE

The monitoring and maintenance scope of services for the Landfill is completed in accordance with the PCMMP. The PCMMP specifies the O&M inspection activities to be completed for the following Landfill management systems: landfill vegetative soil cover, revetment matting (rip rap), access roads, storm water collection systems, recharge basins, monitoring wells, landfill gas collection system, landfill gas management compound, and site facilities. Inspections are currently conducted annually or as needed based on inclement weather. An annual field inspection was completed in November and December 2024, with the groundwater monitoring wells being inspected in January 2025 as part of the GW Monitoring program. Copies of the completed inspection forms are included in the Post Closure Monitoring and Maintenance Report provided as **Appendix F**.

In general, all Landfill systems are adequate and operating as designed. It should be noted, settlement and/or subsidence are normal and to be expected on a capped landfill, provided the degree of settlement and or subsidence does not detrimentally impact the function of the system being considered.

6.1 Landfill Vegetative Soil Cover, Revetment Matting, and Access Roads

The Landfill cover systems are field inspected by an IRRA employee on an annual basis. As discussed in Section 2.1, the landfill was capped in the fall of 2000. Currently the capped landfill is used to store up to 5,000 new automobiles awaiting distribution.

As noted on the inspection forms, all areas of the cover system are adequate and operating as designed.

Settlement of the revetment matting was observed in three locations (Grid H1-H5, C5, B5) and is currently being monitored by IRRA.

Depressions were observed in the access road (Grid C5) and is currently being monitored by IRRA.

Inspections and observations are continuing to be performed on an annual basis. These observations must be viewed in the context of a capped and closed Landfill in the post closure period of its existence. Therefore, any observations noted as part of the inspections, are considered and evaluated to access whether the conditions impact the functions of the system or compromise the intent of the design and whether any maintenance or remedial activities are required.

6.2 Stormwater Collection System

The following observations were made regarding the stormwater collection system:

- Perimeter Swales – Slope movement was observed in perimeter swales (Grid H1 – H5) and are currently being monitored by IRRA.
- Diversion Swales – Excessive vegetation was observed in diversion swales (B4 and C4) and is maintained seasonally (i.e., during spring cleanup).
- Inlet Structures and Rip Rap Drainway – Loss of topsoil was observed in rip rap drainway (Grid B5) . and is currently being monitored by IRRA
- Energy Dissipators and Downchutes - No deficiencies noted.
- Drywells – Slope movement was observed (Grid C5) and is currently being monitored by IRRA.
- Culverts/Outlets – Soil erosion was observed (Grid B3) and is currently being monitored by IRRA.

6.3 Recharge Basins

Excessive vegetation was observed in Recharge Basin No. 1 (A3) and Recharge Basin No. 2 (A5) and is maintained seasonally (i.e., during spring cleanup).

6.4 Monitoring Wells

Slight settlement was observed around landfill gas monitoring well GM-5's concrete pad and is currently being monitored by IRRA. The flush mount cover at monitoring well MW-01S was observed cracked and needs to be replaced.

6.5 Landfill Gas Collection System

Soil erosion was observed around landfill gas recovery well GR-18 and is currently being monitored by IRRA. Settlement was observed around landfill gas collection well GC-5 and is currently being monitored by IRRA.

6.6 Landfill Gas Compound

Blower Pad, Blower No. 104 A and 104B

Minor oil leaks were observed at both blower motors (104A and 104B) which are being monitored and maintained by IRRA on a weekly basis. The electrical auto switch function is also inoperable for both blowers and is manually switched weekly by IRRA.

Condensate Storage

The 6,000-gallon condensate storage tank was observed to contain approximately 1,583 gallons of liquid during the December 2024 inspection. The tank will be emptied when the volume approaches 75 percent capacity (i.e., 3,000 to 3,500 gallons).

6.7 Site Facilities

The tree that was observed leaning on the fencing (Grid D5) has been removed and the portion of the fence damaged as a result of a car accident (Grid H1) has been repaired. All site

facilities were observed acceptable. Vandalism in the form of graffiti was observed on the site trailer.

6.8 Corrective Measures

As indicated above, the Landfill cover systems are adequate and operating as designed. However, subsidence associated with the natural decomposition of the waste mass has been observed. In addition, slope movement, settlement, soil erosion and ponding, and stressed vegetation and undesirable vegetative growth has been observed at select locations. In addition, several monitoring wells (MW-3D, MW-11S and MW-14I) need to be resurveyed. D&B submitted a Corrective Measures Report to the NYSDEC on February 16, 2024 which is provided as **Appendix H**. In a letter by the NYSDEC dated March 25, 2024, it was requested that new J-plugs be installed at monitoring wells MW-1D and MW-11I, monitoring wells MW-03D, MW-11S, and MW-14I be resurveyed, and the dead tree be removed from the southern fence line.

In addition, the NYSDEC's March 25, 2024 letter requested an inspection be performed to confirm that the slope movement, settlement, soil erosion, and ponding observed throughout the Site, as well as undesirable vegetative growth observed on the Site cover and Recharge Basins No. 1 and No.2 are not impacting the ability of the Engineering Controls to operate as designed. These activities were completed in the fourth quarter of 2024. In addition, the portion of the fence damaged as a result of a car accident (Grid H1) has been repaired.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

Compliance with PCMMP

Based on an evaluation of the remedy performance, effectiveness and protectiveness for the Landfill throughout this reporting period (March 31, 2024 through March 31, 2025), the following conclusions are presented:

IC/EC Plan

As noted in **Section 4.0**, all ICs are currently in place and all EC requirements, as listed in the IC/EC Certificate Form provided by the NYSDEC, are currently in place and operating as intended.

Monitoring and Maintenance Plan

As noted in **Section 6.0**, monitoring requirements were maintained throughout the reporting period in accordance with 6 NYCRR Part 360 regulations, the PCMMP (YEC, December 2000), the revised SAP (Volume 3 of 4) (D&B, 2001) and Supplement No. 1 (D&B, July 2006) to the PCMMP (Volume 1 of 4).

As noted in **Section 6.0**, the monitoring and maintenance scope of services was performed in accordance with the PCMMP. The Landfill cover systems are adequate and operating as designed. However, continued monitoring and maintenance of the deficiencies identified withing the 2024/2025 Post Closure Monitoring and Maintenance Report (**Appendix F**) are required, as necessary, to ensure effective protectiveness of the remedy.

Performance and Effectiveness of the Remedy

As noted in **Section 3.0**, RAO Nos. 1, 2, 3 and 6 are currently being met, based on the performance of the Landfill cap, storm water collection system and drainage improvements, landfill gas collection system and site facilities, as well as the results of the monitoring completed for the groundwater and landfill gas. RAO Nos. 4 and 5 have not been met but are actively progressing toward achieving the overall remediation design goal.

The submittal of the Periodic Review Report (PRR) shall be completed on an annual basis until groundwater monitoring data demonstrates a consistent and sustainable water quality improvement as determined in consultation with the NYSDEC.

7.2 Cost Evaluation

The total cost of the site management activities during the reporting period was $48,176.30. This total includes engineering and site management costs associated with the project support provided by D&B. It should be noted that this total does not include any administrative, site management or maintenance costs incurred by IRRA or the Town of Islip in support of the project.

7.3 Recommendations

IRRA in conjunction with the Town of Islip recommends continuing all required landfill monitoring and inspections consistent with the prescribed PCMMP requirements for the Sonia Road Landfill Complex.

APPENDIX A

INSTITUTIONAL AND ENGINEERING CONTROL CERTIFICATION FORM

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **152013**

Site Name Sonia Road Landfill

Site Address: Sonia Road Zip Code: 11706
City/Town: West Brentwood
County: Suffolk
Site Acreage: 42.000

Reporting Period: March 31, 2023 to March 31, 2024

	YES	NO
1. Is the information above correct?	☑ X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑ X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑ X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑ X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑ X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	☑ X	☐
7. Are all ICs in place and functioning as designed?	☑ X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

1/22/25
Date

SITE NO. 152013 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
060.022-100-200.2	TOWN OF ISLIP	Ground Water Use Restriction Landuse Restriction Building Use Restriction Surface Water Use Restriction Monitoring Plan O&M Plan

ROD, State Assistance Contract and Amendments, October 2000 Post Closure Monitoring and Maintenance Plan, Revised December 2001 and Amended by the 1/19/2004 Maintenance Plan for Vehicular Storage.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
060.022-100-200.2	Vapor Mitigation Cover System Fencing/Access Control

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑ X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑ X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

1/22/25
Date

IC CERTIFICATIONS
SITE NO. 152013

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I A.J. VARRICHIO at 401 MAIN ST,
print name print business address

am certifying as Owner Rep (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

1/22/25
Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I A J Varricchio (print name) at 401 Main St Islip (print business address),

am certifying as a Qualified Environmental Professional for the Owner (Owner or Remedial Party)

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date 1/22/26

APPENDIX B-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 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)	MW-01D 03/17/2015 (mg/l)	MW-01D 5/10/2016 (mg/l)	MW-01D 8/21/2017 (mg/l)	MW-01D 11/29/2018 (mg/l)	MW-01D 2/24/2020 (mg/l)
Color (APHA Units)	-	-	(units)	5	30	40	15	1	5 U	5 U	20	5 U	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	22.9	25.6	27.0 D	14.4	13.1	13.0	18.2	12.1 UB	12.1	12.1
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1 U	0.15	.1 U	0.0500 U	0.0500 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	2 U	4 U	3	4 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U	.50 U	.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	18.2	10 U	37.2	10 U	10.0 U	10.0 U	3.00 U	21.2	3.00 U	3.71 J
Chloride	250 ST	16887-00-6	(mg/l)	104	37.1	3.11	20.8	55.0	205	41.0	57.5 UB	343	59.6 DJ
Hardness (as CaCO3)	-	-	(mg/l)	15.0	56.0	38	20	9.34	25.4	17.3	22.7 UB	61.4	68.8
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	11.4	4.43	1.03 D	3.37 D	3.36 J	5.42 D	6.86 D	8.30 D	4.03	5.64 D
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	**12.5**	0.005 U	0.005 U	0.0120 UB	0.0100 U	**0.0420**	**0.0635**	**0.0336**	**0.0506**
Sulfate	250 ST		(mg/l)	16.9	5 U	5 U	12.4	12.6	33.3	18.3	29.2	39.6	47.2
Total Organic Carbon	-	-	(mg/l)	1	2.7	2.8	1 U	1 U	1 U	1.00 U	1.00 U	1.00 U	2.10 J
Total Dissolved Solids	-	-	(mg/l)	279	136	50	1820	173	454 D	167 D	250	710	200
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1	0.65 U	1.97	0.86	1.37	0.400 U	0.200 U	0.200 U	0.200 U	0.200 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-01D 5/20/21 (mg/l)	MW-01D 8/30/22 (mg/l)	MW-01D 11/28/2023 (mg/l)	MW-01D 1/21/25 (mg/l)	MW-01D (mg/l)	MW-01D (mg/l)	MW-01D (mg/l)	MW-01D (mg/l)	MW-01D (mg/l)	MW-01D (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	85	120						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	11	6.4	28.4	21.4						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.10 U	0.066 UB	0.10 U	0.10 U						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.22 J	0.50 U	0.50 U	0.50 U						
Chemical Oxygen Demand	-	-	(mg/l)	10 U	8.1	83	32.3						
Chloride	250 ST	16887-00-6	(mg/l)	38.1 J	30.9	28.4	7.5						
Hardness (as CaCO3)	-	-	(mg/l)	60.1	54.2	47.3	22.8						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	5.9	7.1	4.8	1.2 J						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.027 UBJ	0.03 U						
Sulfate	250 ST		(mg/l)	26.1	47.6	23.2 J	4.7 J						
Total Organic Carbon	-	-	(mg/l)	0.36 J	1	7.8	8.3						
Total Dissolved Solids	-	-	(mg/l)	228	451	140 J	51						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.10 U	0.11	2	0.85						

NOTES:

NA: Not analyzed

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

J: Estimated value

D: Diluted.

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

: Concentration exceeds Standard/Guidance Value

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

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

-: No standard or guildance value

D&B ENGINEERS AND ARCHITECTS

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 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)	MW-01I 03/17/2015 (mg/l)	MW-01I 5/10/2016 (mg/l)	MW-01I 8/21/2017 (mg/l)	MW-01I 11/29/2018 (mg/l)	MW-01I 2/24/2020 (mg/l)
Color (APHA Units)	-	-	(units)	5	10	5 U	15	1 U	5 U	5 U	20	5 U	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	10.0	8.90	6.40	10.20	6.06	5.00	3.50 U	10.1 UB	8.08	7.58
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1U	.10 U	1.47	0.280	0.0500 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	2 U	4 U	2 U	4 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U	.5 U	.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10	10 U	10 U	10 U	10.0 U	10.0 U	3.00 U	3.00 U	3.00 U	3.00 U
Chloride	250 ST	16887-00-6	(mg/l)	6.97	8.25	11.7	19.2	120	46.0	18.5	63.0 UB	18.2	29.8 J
Hardness (as CaCO3)	-	-	(mg/l)	24.0	25.0	22 D	22	95.3	30.3	24.5	35.8 UB	40.5	33.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.94	1.27	0.80	0.83	0.910 J	0.256	0.252	1.94 D	0.486	1.27
Phenols, total	0.001 ST	-	(mg/l)	24.0	5 U	0.005 U	0.005 U	0.0100 U	**0.0580**	**0.175**	**0.0415**	**0.0937**	**0.015**
Sulfate	250 ST		(mg/l)	21.9	13.2	9.89	6.86	3.34	9.79 UB	13.8	38.1	43.0	21.9
Total Organic Carbon	-	-	(mg/l)	1	1 U	1 U	1U	1	1 U	1.00 U	1.00 U	1.00 U	1.86 J
Total Dissolved Solids	-	-	(mg/l)	58	63	84	72	265	107 D	66.0 D	150	120	90
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.13	0.55 U	0.10 U	1.46	1.46	0.400 U	0.200 U	0.226 J	0.200 U	0.200 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-01I 5/20/21 (mg/l)	MW-01I 8/30/22 (mg/l)	MW-01I 11/28/2023 (mg/l)	MW-01I 1/21/25 (mg/l)	MW-01I (mg/l)	MW-01I (mg/l)	MW-01I (mg/l)	MW-01I (mg/l)	MW-01I (mg/l)	MW-01I (mg/l)
Color (APHA Units)	-	-	(units)	5 U	4	22	18						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	5.2	6.4	7.5	9						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.10 U	0.058 UB	0.10 U	0.10 U						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.075 J	0.50 U	0.50 U	0.50 U						
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	22.6	10.6						
Chloride	250 ST	16887-00-6	(mg/l)	29.3 J	52.9	36.7	11.6						
Hardness (as CaCO3)	-	-	(mg/l)	32.5	56.7	31600	18.5						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.3	1.9	1.6	2.9 J						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.0152 UBJ	0.03 U						
Sulfate	250 ST		(mg/l)	11.3	11.6	14.6 J	25.2 J						
Total Organic Carbon	-	-	(mg/l)	0.49 J	1.0 U	2.5	1.6						
Total Dissolved Solids	-	-	(mg/l)	124	177	102 J	85						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.10 U	0.12	0.51	0.34						

NOTES:

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: Concentration exceeds Standard/Guidance Value

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

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

-: No standard or guildance value

D&B ENGINEERS AND ARCHITECTS

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 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)	MW-01S 03/17/2015 (mg/l)	MW-01S 5/10/2016 (mg/l)	MW-01S 8/21/2017 (mg/l)	MW-01S 11/29/2018 (mg/l)	MW-01S 2/24/2020 (mg/l)
Color (APHA Units)	-	-	(units)	50	20	30	55	15	5 U	50	30	25	20
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	168	157	137 D	120 D	120	144	131	140 UB	143	159
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1 U	0.41	0.7	0.543	0.126	0.0250 U	0.454	0.0250 U	0.0250 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	2 U	4 U	3	4 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5	0.5 U	0.5 U	.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0945 J	0.07 U
Chemical Oxygen Demand	-	-	(mg/l)	32.7	19.4	18.6	29.3	11.3	7.35 J	10.3	3.00 U	15.7	14.6 J
Chloride	250 ST	16887-00-6	(mg/l)	106	46.4	175 D	60.9	42.0	47.0	79.0	50.0 UB	42.6	47.6 J
Hardness (as CaCO3)	-	-	(mg/l)	200	170	220 D	220 D	133	158	166	179	164	210
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.14	0.33	0.16	.1 U	0.100 U	0.442	0.490	0.0500 U	0.471	2.30 D
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.00560 UB	0.0100 U	**0.00995 J**	**0.0319**	**0.0206**	**0.00891 J**
Sulfate	250 ST		(mg/l)	86.0	47.1	57.8 D	39.8	36.9	43.7	26.7	25.0 D	53.4	64.3
Total Organic Carbon	-	-	(mg/l)	8.6	6.8	6.4	5.9	4.6	4.5	4.04	3.70	6.30	7.59
Total Dissolved Solids	-	-	(mg/l)	421	322	499	336	262	300 D	327 D	330	320	340
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.81	0.74 U	0.63 U*	0.66	2.05	0.231 J	0.293 J	0.874	0.200 U	0.200 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-01S 5/20/21 (mg/l)	MW-01S 8/30/22 (mg/l)	MW-01S 11/28/2023 (mg/l)	MW-01S 1/21/25 (mg/l)	MW-01S (mg/l)	MW-01S (mg/l)	MW-01S (mg/l)	MW-01S (mg/l)	MW-01S (mg/l)	MW-01S (mg/l)
Color (APHA Units)	-	-	(units)	15	28	45	90						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	182	200	202	230						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.18	0.14 UB	0.15	0.3						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2.1	4 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.15 J	0.50 U	0.50 U	0.087 J						
Chemical Oxygen Demand	-	-	(mg/l)	27	19.1	59.3	40.9						
Chloride	250 ST	16887-00-6	(mg/l)	97 J	62.5	36.8	41.2						
Hardness (as CaCO3)	-	-	(mg/l)	195	216	195	295						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.60	0.11	0.29	0.11 J						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.0999 UBJ	**0.015 J**						
Sulfate	250 ST		(mg/l)	51.4	57.0	85.9 J	76.9 J						
Total Organic Carbon	-	-	(mg/l)	1.0 U	2.9	13	11.1						
Total Dissolved Solids	-	-	(mg/l)	434	418	379 J	414						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.53 UB	0.48	1.3	1.2						

NOTES:

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D: Diluted.

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: Concentration exceeds Standard/Guidance Value

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

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D&B ENGINEERS AND ARCHITECTS

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 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)	MW-02D 03/17/2015 (mg/l)	MW-02D 05/10/2016 (mg/l)	MW-02D 8/21/2017 (mg/l)	MW-02D 11/29/2018 (mg/l)	MW-02D 2/24/2020 (mg/l)
Color (APHA Units)	-	-	(units)	5	5	5 U	5 U	1 U	5 U	5 U	20	5 U	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	8.30	7.60	9.60	70.6 D	12.1	25.0	15.2	15.2 UB	18.2	19.2
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1	0.1 U	0.10 U	1.81	0.0500 U	0.0500 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	10 U	4 U	3	4 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0578 J	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10.0 U	10.0 U	3.00 U	3.00 U	3.00 U	3.00 U
Chloride	250 ST	16887-00-6	(mg/l)	11.3	5.38	5.92	38.4	25.0	32.0	29.0	42.0 UB	41.1	47.0 J
Hardness (as CaCO3)	-	-	(mg/l)	23.0	19.0	23	100	36.2	69.5	59.7	74.1 UB	55.2	59.0
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.45	0.46	2.05 D	0.1 U	1.41 J	1.22 D	1.82 D	2.77 D	3	4.55 D
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0190 UB	**0.0120**	**0.0660**	**0.0647**	**0.0513**	**0.0196**
Sulfate	250 ST		(mg/l)	17.5	11.3	13.4	20.8	11.7	18.2	26.4	40.2 D	43.5	37.7
Total Organic Carbon	-	-	(mg/l)	1	1 U	1.0 U	1.5	1 U	1 U	1.00 U	1.00 U	1.00 U	1.63 J
Total Dissolved Solids	-	-	(mg/l)	62	56	61	183	95.0	119 D	129 D	160	210	200
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1U	0.23	0.10 U	1.88	0.817	0.400 U	0.200 U	0.200 U	0.200 U	0.200 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-02D 5/20/21 (mg/l)	MW-02D 8/31/22 (mg/l)	MW-02D 11/28/2023 (mg/l)	MW-02D 1/21/25 (mg/l)	MW-02D (mg/l)	MW-02D (mg/l)	MW-02D (mg/l)	MW-02D (mg/l)	MW-02D (mg/l)	MW-02D (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	7	4 J						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	25.3	22	21.5	22						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.10 U	0.054 UB	0.056 J	0.10 U						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.17 J	0.0098 J	0.50 U	0.028 J						
Chemical Oxygen Demand	-	-	(mg/l)	10 U	8.1	18.3	6.3 J						
Chloride	250 ST	16887-00-6	(mg/l)	41.6 J	49.0	27.2	38.6						
Hardness (as CaCO3)	-	-	(mg/l)	38.7	51.4	50.8	72.1						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	4.8	2.9 J	0.05 U	3.4 J						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.0609 UBJ	0.03 U						
Sulfate	250 ST		(mg/l)	39.7	32.6	26.8 J	28.6 J						
Total Organic Carbon	-	-	(mg/l)	5.5 J	1.0 U	1.1 UB	0.64 J						
Total Dissolved Solids	-	-	(mg/l)	190	200	116 J	143						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.10 U	0.11	0.10 U	0.10 U						

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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)	MW-02I 03/17/2015 (mg/l)	MW-02I 05/10/2016 (mg/l)	MW-02I 8/21/2017 (mg/l)	MW-02I 11/29/2018 (mg/l)	MW-02I 2/24/2020 (mg/l)
Color (APHA Units)	-	-	(units)	5	5	5	5 U	1	5 U	5 U	20	5 U	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	28.1	29.6	44.9	11.7	52.5	50.0	127	30.3 UB	40.4	16.2
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	**2.95**	0.1 U	**4.08**	0.886	0.0300 J	1.59	1.49	0.960
Biochemical Oxygen Demand	-	-	(mg/l)	2	2 U	2 U	2 U	4 U	2 U	4 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0516 J	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10	10 U	10 U	10 U	3.44 J	10.0 U	7.57 J	3.00 U	3.00 U	3.00 U
Chloride	250 ST	16887-00-6	(mg/l)	26.7	20.0	16.9	14.9	34.0	42.5	177	37.5 UB	39.6	31.0 J
Hardness (as CaCO3)	-	-	(mg/l)	44.0	42.0	44	34	73.9	78.2	101	64.9 UB	74.7	41.2
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.35	1.80	0.42	1.76	0.900 J	1.92 D	1.41 D	1.59 D	1.37	2.14 D
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	**23.4**	0.005 U	0.005 U	0.0140 UB	0.0100 U	**0.0610**	**0.0340**	**0.0671**	**0.0339**
Sulfate	250 ST		(mg/l)	19.1	9.82	19	91.7	17.8	23.8	43.4	40.0	23.2	13.9
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1.2	1 U	1.1	1.1	2.27	1.00 U	1.00 U	1.67 J
Total Dissolved Solids	-	-	(mg/l)	103	105	98	77	140	149 D	514 D	160	150	100
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.13	1.74	3.22	2.03	6.38	1.12	0.332 J	2.38	1.64	1.65

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-02I 5/20/21 (mg/l)	MW-02I 8/31/22 (mg/l)	MW-02I 11/28/2023 (mg/l)	MW-02I 1/21/25 (mg/l)	MW-02I (mg/l)	MW-02I (mg/l)	MW-02I (mg/l)	MW-02I (mg/l)	MW-02I (mg/l)	MW-02I (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	17	6						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	18	21.1	14.8	28.1						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.50	0.11 UB	0.10 U	0.055 J						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.087 J	0.012 J	0.50 U	0.022 J						
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	16.2	12.8						
Chloride	250 ST	16887-00-6	(mg/l)	25.4 J	41.3	19.4	23.6						
Hardness (as CaCO3)	-	-	(mg/l)	35	46.5	25.9	37.3						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	2.0	1.2 J	1.2	1.4 J						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.0278 UBJ	0.03 U						
Sulfate	250 ST		(mg/l)	14.9	8.5	10.3 J	12.4 J						
Total Organic Carbon	-	-	(mg/l)	1.0 U	1.0 U	2 UB	1.4						
Total Dissolved Solids	-	-	(mg/l)	109	139	66 J	85						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.36 UB	0.11	0.3	0.10 U						

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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)	MW-03S 03/18/2015 (mg/l)	MW-03S 05/11/2016 (mg/l)	MW-03S 8/23/2017 (mg/l)	MW-03S 11/29/2018 (mg/l)	MW-03S 2/25/2020 (mg/l)
Color (APHA Units)	-	-	(units)	200	200	150 D	125 D	25	250	5	30	7	200
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	304	259	210 D	186 D	222	201	276	184 UB	197	259
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.67	1.27	**2.27**	1.75 D	1.70	0.88 J	0.886	1.41	1.44	1.52
Biochemical Oxygen Demand	-	-	(mg/l)	9	16	9	14	22	13 J	7 U	2 U	4 U	6.7 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	30.3	21.8	25.9	29.9	4.07 J	14.6	6.66 J	3.00 UJ	11.5	21.9
Chloride	250 ST	16887-00-6	(mg/l)	48.8	53.8	50	49.4	56.0	42.0	51.0	47.5 UB	62.8	47.9
Hardness (as CaCO3)	-	-	(mg/l)	300	240	220 D	270 D	183	175	183	203	174	83.4
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.24	0.10 U	.1 U	0.100 U	1.89 DJ	0.0500 U	0.0500 U	0.0500 U	0.207
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.00663 UB	**0.00989 J**	**0.111**	**0.0463**	**0.0406**	**0.0204**
Sulfate	250 ST		(mg/l)	9.30	5 U	5 U	5 U	4.48	3.49 UB	2.37	17.2 D	5.63	0.500 U
Total Organic Carbon	-	-	(mg/l)	8.9	6.4	7.5	6.2	6.3	6	5.58	2.99 J	5.88	8.34
Total Dissolved Solids	-	-	(mg/l)	419	338	304	324	333	305 D	282 D	330	310	390
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	2.40	3.55	2.69	2.15	4.82	1.22	1.79	2.92	1.81	2.48

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-03S 5/24/21 (mg/l)	MW-03S 9/7/22 (mg/l)	MW-03S 12/1/2023 (mg/l)	MW-03S 1/23/25 (mg/l)	MW-03S (mg/l)	MW-03S (mg/l)	MW-03S (mg/l)	MW-03S (mg/l)	MW-03S (mg/l)	MW-03S (mg/l)
Color (APHA Units)	-	-	(units)	150	90	100	280						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	259	272	213	231						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.4	1.1	0.82	1.2						
Biochemical Oxygen Demand	-	-	(mg/l)	4.1	6.0	6.4	5.3						
Bromide	2 GV	24959-67-9	(mg/l)	0.058 J	0.0059	0.037 J	0.056 J						
Chemical Oxygen Demand	-	-	(mg/l)	29.2	23.6	55	79.9						
Chloride	250 ST	16887-00-6	(mg/l)	41.8 J	51.8	44.6	49						
Hardness (as CaCO3)	-	-	(mg/l)	181	210	180	235						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.084	0.05 U	0.05 UJ	0.16						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.0876 UB	0.03 U						
Sulfate	250 ST		(mg/l)	0.98 J	0.95 UB	8.7	2 J						
Total Organic Carbon	-	-	(mg/l)	7.2	4.5	8.3 J	10.2						
Total Dissolved Solids	-	-	(mg/l)	296	600	370 J	321						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.7 J	2.1	2.3	3.1						

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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)	MW-04D 03/18/2015 (mg/l)	MW-04D 05/11/2016 (mg/l)	MW-04D 8/22/2017 (mg/l)	MW-04D 11/30/2018 (mg/l)	MW-04D 2/25/2020 (mg/l)
Color (APHA Units)	-	-	(units)	140	20	30	10	10	350	5 U	40	6.5	150
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	28.5	18.4	18.8	19.7	110	17.0	29.3	43.4 UB	125	70.7
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.39	0.1 U	0.10 U	0.22	0.180	0.167 J	0.0840	0.382	0.903	0.590
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	8 U	5 J	7 U	2 U	4 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	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10.0 U	7.35 J	9.99 J	3.00 UJ	27.2	4.37 J
Chloride	250 ST	16887-00-6	(mg/l)	39.6	13.0	20.9	17.5	55.0	45.5	52.0	73.0 UB	6.36	61.4 D
Hardness (as CaCO3)	-	-	(mg/l)	54.0	40.0	47	48 D	68.8	50.3	65.0	80.1 UB	115	72.3
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.50	0.42	0.37	0.100 U	1.79 DJ	0.0500 U	0.0500 U	0.0500 U	0.0800 J
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	**16.3**	0.005 U	0.005 U	0.00592 UB	**0.0100**	**0.113**	**0.0287**	**0.0595**	**0.0472**
Sulfate	250 ST		(mg/l)	16.8	11.0	15.3	12.6	37.0	26.5	42.0	52.5 D	1.92 J	37.8
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1.8	1.5	2.01	1.00 U	2.31 J	2.36 J
Total Dissolved Solids	-	-	(mg/l)	177	72	97	92	209	181 D	191 D	330	410	210
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.50	0.21 U	0.10 U	0.1 U	1.67	0.400 U	0.547	0.404	1.04	0.790

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-04D 5/20/21 (mg/l)	MW-04D 9/7/22 (mg/l)	MW-04D 11/29/2023 (mg/l)	MW-04D 1/24/25 (mg/l)	MW-04D (mg/l)	MW-04D (mg/l)	MW-04D (mg/l)	MW-04D (mg/l)	MW-04D (mg/l)	MW-04D (mg/l)
Color (APHA Units)	-	-	(units)	150	280	560	280						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	46.8	44.0	61.1	45.6						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.37	0.17 UB	0.18	0.14						
Biochemical Oxygen Demand	-	-	(mg/l)	3.0	2.0 U	2.3	2.3						
Bromide	2 GV	24959-67-9	(mg/l)	0.12 J	0.0069 J	0.50 U	0.042 J						
Chemical Oxygen Demand	-	-	(mg/l)	12.1	10.3	22.6	32.3						
Chloride	250 ST	16887-00-6	(mg/l)	68.7 J	57.7	66	65.4						
Hardness (as CaCO3)	-	-	(mg/l)	67.4	66.8	73.3	82.8						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.050 U	0.05 U	0.05 UJ	0.05 UJ						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.0466 UBJ	**0.009 J**						
Sulfate	250 ST		(mg/l)	39.4	34.9	36.5 J	49.5						
Total Organic Carbon	-	-	(mg/l)	0.69 J	1.0 U	0.95 UB	0.89						
Total Dissolved Solids	-	-	(mg/l)	232	260 J	260 J	229						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.39 UB	0.46	0.27	0.10 U						

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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)	MW-04I 03/18/2015 (mg/l)	MW-04I 05/11/2016 (mg/l)	MW-04I 8/22/2017 (mg/l)	MW-04I 11/30/2018 (mg/l)	MW-04I 2/25/2020 (mg/l)
Color (APHA Units)	-	-	(units)	200	10	70	75 D	15	150	5	100	6.5	150
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	243	75.1	52.4 U	141 D	104	63.0	271	435	234	145
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.37	0.1 U	0.1 U	0.22	1.42	**2.36 DJ**	1.12	**4.76 D**	**2.32**	**6.20 D**
Biochemical Oxygen Demand	-	-	(mg/l)	17 J*	2 U	2 U	6	8 U	4 UJ	7 U	2 U	4 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	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	27.9	10 U	10 U	14.7	10.0 U	10.0 U	6.36 J	3.00 UJ	17.1	8.68 J
Chloride	250 ST	16887-00-6	(mg/l)	79.6	48.8	19.1	83.9 D	93.0	58.5	68.0	77.0 UB	5.19	104 D
Hardness (as CaCO3)	-	-	(mg/l)	180	92.0	58 D	180 D	76.3	99.3	155	238	188	144
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.28	0.83	0.1 U	0.1 U	0.0503 J	1.48 DJ	0.0500 U	0.0500 U	0.0500 U	0.145
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.00780 UB	**0.00795 J**	**0.0730**	**0.0602**	**0.0675**	**0.0517**
Sulfate	250 ST		(mg/l)	11.3 U	19.9	14.8	7.08	22.6	22.4	34.0	2.00 DU	1.35 UB	45.6
Total Organic Carbon	-	-	(mg/l)	3.6	1.2	1.1	2.3	2.8	1.9	3.92	2.62 J	4.67	4.36
Total Dissolved Solids	-	-	(mg/l)	337	200	111	326	287	223 D	305 D	410	410	390
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.90	0.64 U	0.15 U*	0.23	3.80	2.50	1.80	7.14 D	2.75	4.36

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-04I 5/20/21 (mg/l)	MW-04I 9/7/22 (mg/l)	MW-04I 11/29/2023 (mg/l)	MW-04I 1/24/25 (mg/l)	MW-04I (mg/l)	MW-04I (mg/l)	MW-04I (mg/l)	MW-04I (mg/l)	MW-04I (mg/l)	MW-04I (mg/l)
Color (APHA Units)	-	-	(units)	100	240	360	250						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	118	93.8	76	61.5						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	**4.8**	**2.3**	**2.1**	0.53						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	12.4	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.12 J	0.0079	0.063 J	0.042 J						
Chemical Oxygen Demand	-	-	(mg/l)	14.2	10 U	37.7	25.8						
Chloride	250 ST	16887-00-6	(mg/l)	52.2 J	50.4	40.7	47.5 J						
Hardness (as CaCO3)	-	-	(mg/l)	85	92.7	78.2	92.7						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.05 U	0.05 U	0.05 J	1 J						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.01U	0.03 U						
Sulfate	250 ST		(mg/l)	31.7	21.9	8.2 J	24.1						
Total Organic Carbon	-	-	(mg/l)	1.8	0.61	7.8	2.1						
Total Dissolved Solids	-	-	(mg/l)	244	400	152 J	179						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	4.8	2.7	2.5	0.3 J						

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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)	MW-04S 03/18/2015 (mg/l)	MW-04S 05/11/2016 (mg/l)	MW-04S 8/22/2017 (mg/l)	MW-04S 11/30/2018 (mg/l)	MW-04S 2/25/2020 (mg/l)
Color (APHA Units)	-	-	(units)	120	60	300 D	75 D	30	250	5	100	6.5	200
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	350	297	292 D	290 D	338	323	136	340	381	333
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	**2.61**	**2.66**	**5.73 D**	**3.64**	**3.97**	1.82 J	1.54	**4.40 D**	**2.86**	**2.44 D**
Biochemical Oxygen Demand	-	-	(mg/l)	19 J*	14	17 J*	17	32	27 J	7 U	18.3	9.9	15.9
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.50 U	.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	23.0	36.0	28.6	26	26.2	20.2	21.2	24.9 J	26.1	22.9
Chloride	250 ST	16887-00-6	(mg/l)	48.4	49.9	52.4 D	52.7 D	45.0	44.0	48.0	47.0 UB	36.8	61.0 D
Hardness (as CaCO3)	-	-	(mg/l)	290	275	300 D	310 D	245	277	303	383	286	255
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.11	0.10 U*J*	.1 U	0.0773 J	2.64 DJ	0.0500 U	0.0500 U	0.0500 U	0.151
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0107 UB	**0.0160**	**0.0220**	**0.0423**	**0.0215**	**0.0178**
Sulfate	250 ST		(mg/l)	10.2	5 U	5.00 U	5 U	2.00 U	2.00 U	2.22	2.00 DU	8.04	0.500 U
Total Organic Carbon	-	-	(mg/l)	6.3	5.4	6.6	5.8	6.7	8.2	8.96	5.84	8.17	7.82
Total Dissolved Solids	-	-	(mg/l)	398	378	432	448	394	459 D	419 D	550	480	420
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	5.38	4.79	6.03 D	4.30 D	8.92	3.90	4.18	7.18 D	4.29	3.86

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-04S 5/21/21 (mg/l)	MW-04S 9/7/22 (mg/l)	MW-04S 11/29/2023 (mg/l)	MW-04S 1/24/25 (mg/l)	MW-04S (mg/l)	MW-04S (mg/l)	MW-04S (mg/l)	MW-04S (mg/l)	MW-04S (mg/l)	MW-04S (mg/l)
Color (APHA Units)	-	-	(units)	180	160	460	280						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	349	339	354	313						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	**2.9**	**2.6**	**3.4**	**2.4**						
Biochemical Oxygen Demand	-	-	(mg/l)	10 U	21.4	6.2	12.1						
Bromide	2 GV	24959-67-9	(mg/l)	0.11 J	0.11	0.056	0.13 J						
Chemical Oxygen Demand	-	-	(mg/l)	33.4	30.2	57.2	53.9						
Chloride	250 ST	16887-00-6	(mg/l)	61.5 J	60.7	55.7	55.7						
Hardness (as CaCO3)	-	-	(mg/l)	256	279	331	277						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.05 U	0.05 U	0.05 UJ	0.05 UJ						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.148 UBJ	**0.014 J**						
Sulfate	250 ST		(mg/l)	5 U	0.24 UB	5.0 U	5.0 U						
Total Organic Carbon	-	-	(mg/l)	6.4	4.4	8.4	8.4						
Total Dissolved Solids	-	-	(mg/l)	422	700	442 J	425						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	3.1	3.8	3.3	3.3						

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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)	MW-05D 03/19/2015 (mg/l)	MW-05D 05/11/2016 (mg/l)	MW-05D 8/22/2017 (mg/l)	MW-05D 11/30/2018 (mg/l)	MW-05D 2/25/2020 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	10	5 U	5	1 U	5 U	5 U	40	5 U	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	23.5	12.4	13.4	14.6 D	9.09	12.0	453	16.2 UB	14.1	16.2
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.13	.1 U	0.0500 U	0.0500 UJ	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U	2 U	7 U	2 U	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	12	10 U	10.0 U	10.0 U	3.00 U	3.00 UJ	3.82 J	3.00 U
Chloride	250 ST	16887-00-6	(mg/l)	67.5	46.4	34.5	9.32	13.0	22.5	39.0	12.0 UB	15.9	29.1
Hardness (as CaCO3)	-	-	(mg/l)	110	82.0	70	19	25.5	45.2	53.9	32.9 UB	51.2	70.6
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	4.45	5.28	2.3 D	1.6	1.07	0.948 D	0.901	2.07 D	2.35	1.86 D
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0216 UB	**0.0240**	**0.00805 J**	**0.0607**	**0.0440**	**0.0241**
Sulfate	250 ST		(mg/l)	84.0	29.3	49.9 D	20.1	29.4	38.3	22.3	24.1	0.652 UB	35.3
Total Organic Carbon	-	-	(mg/l)	1.0	1.2	1.2	1 U	1.2	1 U	1.00 U	1.00 U	1.76 J	1.85 J
Total Dissolved Solids	-	-	(mg/l)	300	179	163	98	110	122 D	124 D	130	110	120
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.41	1.37	0.19	0.62	1.07	0.645	0.200 U	0.200 U	0.200 U	0.200 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-05D 5/21/21 (mg/l)	MW-05D 9/7/22 (mg/l)	MW-05D 12/1/2023 (mg/l)	MW-05D 1/24/25 (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)	MW-05D (mg/l)
Color (APHA Units)	-	-	(units)	4.0 J	4	60	55						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	25.5	21.7	20.8	17.1						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.10 U	0.063 UB	0.10 U	0.10 U						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.28 J	0.50 U	0.50 UJ	0.029 J						
Chemical Oxygen Demand	-	-	(mg/l)	5.7 J	10 U	16.2	21.4						
Chloride	250 ST	16887-00-6	(mg/l)	78.5 J	45.6	25.2	24.3						
Hardness (as CaCO3)	-	-	(mg/l)	101	78.6	51.9	52.5						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.53 J	1.6	1.2 J	1.2 J						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	**0.0484**	0.055 UB	0.03 U						
Sulfate	250 ST		(mg/l)	54.3	58.3	55.1	40.2						
Total Organic Carbon	-	-	(mg/l)	0.81 J	1.0 U	2.5 UBJ	1.6						
Total Dissolved Solids	-	-	(mg/l)	250	197	181 J	130						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.23 UBJ	0.15	0.42	0.1 U						

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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)	MW-05I 03/19/2015 (mg/l)	MW-05I 05/11/2016 (mg/l)	MW-05I 8/22/2017 (mg/l)	MW-05I 11/30/2018 (mg/l)	MW-05I 2/25/2020 (mg/l)
Color (APHA Units)	-	-	(units)	10	60	250 D	100 D	25	150	5 U	100	7	150
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	42.3	38.3	57.6 D	40.8	67.7	65.0	67.7	96 UB	204	158
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.13	0.66	0.570	0.684 J	0.352	0.575	0.252	1.24
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2	2 U	2 U	8 U	2 U	7 U	2 U	4 U	6.7 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	26.5	10 U	10 U	10.0 U	10.0 U	9.38 J	3.00 UJ	10.1	7.35 J
Chloride	250 ST	16887-00-6	(mg/l)	37.6	28.0	27.0	12.5	70.0	25.0	16.0	39.0 UB	7.37	44.4
Hardness (as CaCO3)	-	-	(mg/l)	88.0	64.0	90 D	59	96.5	57.5	43.7	145	176	157
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.63	0.10 U	.1 U	0.100 U	0.236	0.0500 U	0.0500 U	0.0500 U	0.141
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	**16.7**	0.005 U	0.005 U	0.0110 UB	0.0100 U	**0.0330**	**0.0838**	**0.0796**	**0.0328**
Sulfate	250 ST		(mg/l)	32.7	22.5	28.7	12.9	70.6	29.6	9.48	16.6 D	0.383 UB	22.5
Total Organic Carbon	-	-	(mg/l)	1.3	2.6	2.3	1 U	3.2	1.9	1.40 J	1.51 J	3.11	4.18
Total Dissolved Solids	-	-	(mg/l)	196	126	164	100	300	152 D	82.0 D	310	340	270
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.23	1.67	0.20	0.68	1.70	1.41	0.642	0.686	0.260 J	2.05

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-05I 5/21/21 (mg/l)	MW-05I 9/7/22 (mg/l)	MW-05I 12/1/2023 (mg/l)	MW-05I 1/23/25 (mg/l)	MW-05I (mg/l)	MW-05I (mg/l)	MW-05I (mg/l)	MW-05I (mg/l)	MW-05I (mg/l)	MW-05I (mg/l)
Color (APHA Units)	-	-	(units)	140	220	45	110						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	82.2	59.1	70.4	86.9						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.44	0.080 UB	1.4	0.17						
Biochemical Oxygen Demand	-	-	(mg/l)	10 U	2 U	7.9	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.12 J	0.50 U	0.50 UJ	0.046 J						
Chemical Oxygen Demand	-	-	(mg/l)	18.5	16.9	35.6	47.4						
Chloride	250 ST	16887-00-6	(mg/l)	38.7 J	44.3	29.2	43.6						
Hardness (as CaCO3)	-	-	(mg/l)	95.9	73.4	71.2	97.2						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.05 U	0.05 U	0.21 J	0.72						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.031 UB	0.03 U						
Sulfate	250 ST		(mg/l)	39.1	30.1	17.2	20.7						
Total Organic Carbon	-	-	(mg/l)	1.5	0.63	4.4 J	5.1						
Total Dissolved Solids	-	-	(mg/l)	304	680	188 J	188						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.61 UBJ	0.35	2.1	0.96						

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Color (APHA Units)	-	-	(units)	40	50	200 D	150 D	25	250	10	100	6.5	200
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	334	195	264 D	272 D	294	259	224	238	281	402
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	**2.56**	0.50	**5.26 D**	**5.18 D**	**4.28**	1.85 J	1.38	1.46	**2.5**	**5.40 D**
Biochemical Oxygen Demand	-	-	(mg/l)	15	18	2	18 UJ	22	11	13	7.8	11.8	6.7 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0676 J	0.0919 J
Chemical Oxygen Demand	-	-	(mg/l)	32.7	21.8	29.2	26	7.55 J	24.0	15.1	11.2 J	27.9	32.5
Chloride	250 ST	16887-00-6	(mg/l)	49.3	35.0	46.6	39.8	47.0	43.0	48	24.0 UB	43.2	49.0
Hardness (as CaCO3)	-	-	(mg/l)	320	280	270 D	330 D	208	226	222	226	230	321
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.1 U	0.18	0.17	0.1 UJ	0.100 U	2.02 D	0.0500 U	0.0500 U	0.0500 U	0.0877 J
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	**5.4**	0.005 U	0.005 U	0.00571 UB	0.0100 U	**0.0130**	**0.0246**	**0.0343**	**0.0233**
Sulfate	250 ST		(mg/l)	11.6	22.8	5 U	5 U	2.56	2.00 U	2.37	2.00 DU	4.16	1.23 J
Total Organic Carbon	-	-	(mg/l)	8.7	4.8	7.4	1.6	7	8.9	7.57	5.07	9.23	10.8
Total Dissolved Solids	-	-	(mg/l)	496	313	357	383	956	355 D	322 D	110	390	470
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	7.62	5.79	5.66 D	5.42 D	7.66	4.27	3.46	3.58	3.83	6.92 D

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Color (APHA Units)	-	-	(units)	130	110	90	700						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	339	392	273	350						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	**3.9**	**3.9**	**2.4**	**3.6**						
Biochemical Oxygen Demand	-	-	(mg/l)	10 U	10.9	9.6	12.3						
Bromide	2 GV	24959-67-9	(mg/l)	0.093 J	0.064	0.035 J	0.11 J						
Chemical Oxygen Demand	-	-	(mg/l)	46.2	41.3	37.7	123						
Chloride	250 ST	16887-00-6	(mg/l)	49.1 J	46.5	40.9	61						
Hardness (as CaCO3)	-	-	(mg/l)	260	269	222	324						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.05 U	0.05 U	0.05 UJ	0.05 U						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.0171 UB	**0.024 J**						
Sulfate	250 ST		(mg/l)	0.33 J	5.0 U	5.0 U	5.5						
Total Organic Carbon	-	-	(mg/l)	9.3	9.3	10.5 J	13.5						
Total Dissolved Solids	-	-	(mg/l)	384	460	408 J	452						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	5.0 J	6.2	2.2	5.5						

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SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
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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)	MW-06D 03/18/2015 (mg/l)	MW-06D 05/10/2016 (mg/l)	MW-06D 8/22/2017 (mg/l)	MW-06D 11/29/2018 (mg/l)	MW-06D 2/24/2020 (mg/l)
Color (APHA Units)	-	-	(units)	5	5	5 U	15	1 U	350	5 U	25	30	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	32.3	13.6	16.8	10.9	14.1	11.0	6.06	14.1 UB	21.2	21.2
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.1 U	0.23	0.868	0.817 J	0.903	1.92	***2.5***	1.80
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U	2 UJ	4 U	2 UJ	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0724 J	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10.9	10 U	10 U	10 U	10.0 U	10.0 U	3.00 U	3.00 UJ	7.65 J	3.00 U
Chloride	250 ST	16887-00-6	(mg/l)	25.0	28.0	24.0	24.8	19.0	17.5	20.0	37.0 UB	48.3	37.3 J
Hardness (as CaCO3)	-	-	(mg/l)	40.0	36.0	36 D	36 D	25.1	25.2	29.7	47.4 UB	58.6	69.5
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.75	0.68	0.36	0.68	1.55 J	1.54 DJ	1.46 D	0.619	0.511	1.79 D
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U	**0.142**	**0.0510**	**0.0638**	**0.0406**	**0.0276**
Sulfate	250 ST		(mg/l)	24.5	20.1	26.9	21	14.7	12.8	9.78	15.1	28.6	45.9
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1 U	1 U	1 U	1 U	1.00 U	1.00 U	2.50 J	2.10 J
Total Dissolved Solids	-	-	(mg/l)	130	101	99	107	87.0	93.0 D	67.0 D	130	180	150
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.1 U	0.1 U	.5 U	2.40	0.870	1.59	2.37	2.74	2.20

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-06D 5/21/21 (mg/l)	MW-06D 8/31/22 (mg/l)	MW-06D 11/29/2023 (mg/l)	MW-06D 1/22/25 (mg/l)	MW-06D (mg/l)	MW-06D (mg/l)	MW-06D (mg/l)	MW-06D (mg/l)	MW-06D (mg/l)	MW-06D (mg/l)
Color (APHA Units)	-	-	(units)	6.0	5 U	25.0	50						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	14.8	22.1	1.6	2.4						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.8	1.5	0.1 U	0.1 U						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.14 J	0.0033 J	0.5 U	0.024 J						
Chemical Oxygen Demand	-	-	(mg/l)	20.6	5.9	9.7 J	10.6						
Chloride	250 ST	16887-00-6	(mg/l)	19.2 J	27.9	27.6	26.7						
Hardness (as CaCO3)	-	-	(mg/l)	40.2	57.4	45	48.3						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.0	0.93 J	2.1 J	2.1 J						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.01 U	0.008 UB						
Sulfate	250 ST		(mg/l)	38.6	39.0	29 J	25.6 J						
Total Organic Carbon	-	-	(mg/l)	0.56 J	1.0 U	0.97 UB	0.44 J						
Total Dissolved Solids	-	-	(mg/l)	119	136 J	138 J	93						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.4	1.6	0.1 U	0.1 U						

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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)	MW-06I 03/18/2015 (mg/l)	MW-06I 05/10/2016 (mg/l)	MW-06I 8/22/2017 (mg/l)	MW-06I 11/30/2018 (mg/l)	MW-06I 2/24/2020 (mg/l)
Color (APHA Units)	-	-	(units)	10	10	5 U	5	1 U	350	5 U	20	5 U	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	26.3	24.9	37.1	39.3	34.3	48.0	43.4	56.6 UB	91.9	73.7
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.1 U	0.1 U	0.26	0.35	0.0500 U	0.0500 UJ	0.0320 J	0.590	0.512	1.08
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U	2 UJ	4 U	2 UJ	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 U	1.33 J	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10.0 U	10.0 U	3.03 J	3.00 UJ	8.70 J	3.00 U
Chloride	250 ST	16887-00-6	(mg/l)	30.7	23.2	33.9	27.2	23.0	46.5	48.0	29.5 UB	102	42.9 J
Hardness (as CaCO3)	-	-	(mg/l)	45.0	45.0	80 D	52 D	39.8	46.6	53.3	66.2 UB	121	113
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	0.166 J	0.502	0.208	1.17	0.997
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U	**0.0110**	**0.0550**	**0.0529**	**0.0308**	**0.0252**
Sulfate	250 ST		(mg/l)	11.1	9.46	56.2 D	15	8.66	26.6	31.8	37.6 D	36.2	32.8
Total Organic Carbon	-	-	(mg/l)	1.0	1 U	1 U	1 U	1 U	1.3	1.00 U	1.00 U	1.67 J	2.37 J
Total Dissolved Solids	-	-	(mg/l)	124	98	188	129	99.0	188 D	178 D	170	320	210
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.41	0.25 U	0.35 U*	0.28 U	0.961	0.400 U	0.200 U	0.764	0.559	1.84

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-06I 5/21/21 (mg/l)	MW-06I 8/31/22 (mg/l)	MW-06I 11/29/2023 (mg/l)	MW-06I 1/22/25 (mg/l)	MW-06I (mg/l)	MW-06I (mg/l)	MW-06I (mg/l)	MW-06I (mg/l)	MW-06I (mg/l)	MW-06I (mg/l)
Color (APHA Units)	-	-	(units)	5 U	4	30	17						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	96.3	82.1	56.3	57.9						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.3	1.6	0.1 U	0.23						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2.1						
Bromide	2 GV	24959-67-9	(mg/l)	0.11 J	0.0040 J	0.5 U	0.023 J						
Chemical Oxygen Demand	-	-	(mg/l)	9.9 J	8.1	14	30.1						
Chloride	250 ST	16887-00-6	(mg/l)	50.6 J	41.9	41.7	49.7						
Hardness (as CaCO3)	-	-	(mg/l)	108	88.2	903	77.6						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.51	1.3	1.8 J	2 J						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.01 U	0.03 U						
Sulfate	250 ST		(mg/l)	35.8	21.7	26.7 J	16.6 J						
Total Organic Carbon	-	-	(mg/l)	1.1	1.0 U	2 UB	1.9						
Total Dissolved Solids	-	-	(mg/l)	284	190	195 J	169						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.73 UB	1.8	0.1 U	0.15 J						

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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)	MW-06S 03/18/2015 (mg/l)	MW-06S 05/10/2016 (mg/l)	MW-06S 8/22/2017 (mg/l)	MW-06S 11/30/2018 (mg/l)	MW-06S 2/24/2020 (mg/l)
Color (APHA Units)	-	-	(units)	100	70	100 D	75	20	250	5 U	40	40	75
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	220	77.7	259 D	223 D	293	96.0	169	148 UB	115	318
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.41 J*	1.46	**5.90 D**	**3.89**	**2.60**	0.222 J	0.835	0.453	0.371	**5.60 D**
Biochemical Oxygen Demand	-	-	(mg/l)	8 J*	8	10 J*	13	16	5 J	6	5.2 J	4 U	9.1
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	25.4	21.8	20.0	25.3	10.0 U	3.26 J	12.7	3.00 UJ	10.8	45.8
Chloride	250 ST	16887-00-6	(mg/l)	21.9	23.0	27.9	49.5	27.0	31.0	42.0	57.0 UB	57.4	40.7 J
Hardness (as CaCO3)	-	-	(mg/l)	200	180	240	250 D	180	96.1	169	140	112	238
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.50	0.20	0.10 U	0.1 U	0.100 U	1.40 DJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U	**0.0110**	0.00500 U	**0.0621**	**0.0313**	**0.0179**
Sulfate	250 ST		(mg/l)	7.40	5 U	5 U	5 U	1.99 J	28.2	3.83	1.00 U	12.8	3.94
Total Organic Carbon	-	-	(mg/l)	5.4	3.3	8.1 J*	4.1	4	2.7	3.70	1.16 J	1.78 J	7.69
Total Dissolved Solids	-	-	(mg/l)	277	228	329	378	276	218 D	257 D	280	270	430
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	4.08	3.37	7.07 D	0.5 U	5.08	0.303 J	2.23	0.616	0.472	6.80 D

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-06S 5/21/21 (mg/l)	MW-06S 8/31/22 (mg/l)	MW-06S 11/29/2023 (mg/l)	MW-06S 1/22/25 (mg/l)	MW-06S (mg/l)	MW-06S (mg/l)	MW-06S (mg/l)	MW-06S (mg/l)	MW-06S (mg/l)	MW-06S (mg/l)
Color (APHA Units)	-	-	(units)	180	280	43	860						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	211	211	77.1	265						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	**3.3**	**3.6**	0.59	**4.4**						
Biochemical Oxygen Demand	-	-	(mg/l)	10 U	9.2	2 U	9.6						
Bromide	2 GV	24959-67-9	(mg/l)	0.036 J	0.034	0.025 J	0.098 J						
Chemical Oxygen Demand	-	-	(mg/l)	20.6	14.7	20.5	45.2						
Chloride	250 ST	16887-00-6	(mg/l)	32.9 J	50.7	65.1	31.8						
Hardness (as CaCO3)	-	-	(mg/l)	160	225	879	243						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.08 J	0.050 UJ	0.05 UJ	0.05 UJ						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.01 U	0.03 U						
Sulfate	250 ST		(mg/l)	2.9 J	5	6.2 J	5 U						
Total Organic Carbon	-	-	(mg/l)	3.8	3.1	2.6	7.7						
Total Dissolved Solids	-	-	(mg/l)	246	410 J	172 J	368						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	3.6	3.7	0.72	5.2 J						

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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)	MW-07I 03/18/2015 (mg/l)	MW-07I 05/10/2016 (mg/l)	MW-07I 8/22/2017 (mg/l)	MW-07I 11/29/2018 (mg/l)	MW-07I 2/24/2020 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5	5 U	5 U	I U	150	5 U	20	5 U	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	29.5	22.0	42.3	30.5	23.2	22.0	17.2	32.3 UB	41.4	46.5
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.13	0.1 U	0.87	0.51	0.288	0.191 J	0.943	1.53	1.32	0.353
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	7	2 U	2 U	4 U	2 UJ	4 U	2 UJ	2 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	.5 UJ	2.00 U	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	10 U	10 U	10.0 U	10.0 U	3.63 J	3.00 UJ	3.00 U	3.00 U
Chloride	250 ST	16887-00-6	(mg/l)	74.0	43.3	67.8 D	44.3 D	33.0	50.0	43.0	28.0 UB	48.6	84.0 J
Hardness (as CaCO3)	-	-	(mg/l)	68.0	41.0	120 D	58 D	38.4	43.0	36.3	50.1 UB	71.8	64.2
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.77	2.60	1.51 D	2.78 D	1.08 J	0.920 J	3.60 D	0.625	1.54	1.80 D
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	5 U	0.0100 U	0.0100 U	**0.0520**	**0.0646**	**0.0481**	**0.0360**
Sulfate	250 ST		(mg/l)	20.6	12.9	28.1	7.7	9.37	15.0	10.2	14.2	18.1	31.8
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1.1	1 U	1 U	1 U	1.00 U	1.00 U	1.00 U	2.19 J
Total Dissolved Solids	-	-	(mg/l)	243	136	298	167	117	151 D	116 D	130	190	220
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.70	1.78	0.99 U*	1.36	1.93	0.363 J	1.49	2.35	1.73	0.368 J

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-07I 5/20/21 (mg/l)	MW-07I 8/31/22 (mg/l)	MW-07I 11/28/2023 (mg/l)	MW-07I 1/22/25 (mg/l)	MW-07I (mg/l)	MW-07I (mg/l)	MW-07I (mg/l)	MW-07I (mg/l)	MW-07I (mg/l)	MW-07I (mg/l)
Color (APHA Units)	-	-	(units)	5 U	3.0 J	40	40						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	44.3	135	42.4	61.3						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.2	0.16 UB	0.10 U	0.10 U						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.081 J	0.0048 J	0.50 U	0.50 U						
Chemical Oxygen Demand	-	-	(mg/l)	7.8 J	19.1	18.3	8.5 J						
Chloride	250 ST	16887-00-6	(mg/l)	37.2 J	250	71.4	55.7						
Hardness (as CaCO3)	-	-	(mg/l)	40.6	162	50	55.8						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	3.4	1.6	6.4 J	2.6						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.0538 UBJ	0.03 U						
Sulfate	250 ST		(mg/l)	27.7	21.7	7.2 J	4.4 J						
Total Organic Carbon	-	-	(mg/l)	0.69 J	0.45	2.3 UB	4.8						
Total Dissolved Solids	-	-	(mg/l)	170	535	214 J	172						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.53 UB	0.53	0.50 U	0.1 U						

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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-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)	MW-12D 03/20/2015 (mg/l)	MW-12D 05/12/2016 (mg/l)	MW-12D 8/23/2017 (mg/l)	MW-12D 12/3/2018 (mg/l)	MW-12D 2/26/2020 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	5 U	5 U	1 U	5 U	5 U	30	5 U	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	9.15	12.8	16	9.4	9.09	5.00	7.07	14.1 UB	18.2	15.2
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	0.0500 UJ	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U	2 U	4 U	2 U	4 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10 U	10 U	12	10 U	10.0 U	10.0 U	3.00 U	3.00 UJ	3.00 U	3.00 U
Chloride	250 ST	16887-00-6	(mg/l)	40.1	26.4	8.80	9.06	8.00	10.0 UB	25.0	22.0 UB	44.6	33.2 J
Hardness (as CaCO3)	-	-	(mg/l)	53.0	42.0	30	22	22.8	22.2	34.9	45.5 UB	61.4	38.9
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.79	1.79	2.70 D	2.94 D	1.46	1.70 D	0.999	0.774	2.35	1.32 D
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U	**0.0200**	**0.0590**	**0.00826 J**	**0.143**	**0.0694**
Sulfate	250 ST		(mg/l)	30.8	20.8	15.7	10.2	17.0	9.15 UB	14.4	10.9	20.0	10.8
Total Organic Carbon	-	-	(mg/l)	1 U	1 U	1.0 U	0.1 U	1 U	1 U	1.00 U	1.00 U	1.00 U	1.67 J
Total Dissolved Solids	-	-	(mg/l)	119	110	73	70	76.0	56.0 D	66.0 D	120	170	100
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.1 U	0.44	0.5 U	1.77	0.363 J	0.831	0.200 U	0.200 U	0.200 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-12D 5/24/21 (mg/l)	MW-12D 9/8/22 (mg/l)	MW-12D 11/30/2023 (mg/l)	MW-12D 1/23/25 (mg/l)	MW-12D (mg/l)	MW-12D (mg/l)	MW-12D (mg/l)	MW-12D (mg/l)	MW-12D (mg/l)	MW-12D (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	5	70						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	13.7	26.8	22.4	39.8						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.10 U	0.061 UB	0.12	0.10 U						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.12 J	1,000 U	0.5 U	0.5 U						
Chemical Oxygen Demand	-	-	(mg/l)	10 U	8.1	16.2	36.6						
Chloride	250 ST	16887-00-6	(mg/l)	34.1 J	37.2	12.7	16						
Hardness (as CaCO3)	-	-	(mg/l)	40.4	71.3	31	55						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.7	0.05 UJ	1.5	0.9						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.01 U	0.03 U						
Sulfate	250 ST		(mg/l)	20.5	66.6	23.4 J	19.5						
Total Organic Carbon	-	-	(mg/l)	1.0 U	0.55	2.6	7.6						
Total Dissolved Solids	-	-	(mg/l)	108	195	107 J	100						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.10 UJ	0.24	0.31	0.34						

NOTES:

NA: Not analyzed

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

J: Estimated value

D: Diluted.

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

: Concentration exceeds Standard/Guidance Value

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

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

-: No standard or guildance value

D&B ENGINEERS AND ARCHITECTS

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 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)	MW-12I 03/20/2015 (mg/l)	MW-12I 05/12/2016 (mg/l)	MW-12I 8/23/2017 (mg/l)	MW-12I 12/3/2018 (mg/l)	MW-12I 2/26/2020 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	20	10	20	1	5 U	5 U	40	5 U	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	17.0	1 U	2.80	23.6 D	27.3	11.0	8.08	35.4 UB	58.6	68.7
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	1.64	0.1 U	0.74	1.75	**2.80**	**5.80 DJ**	**2.46 D**	1.06	**2.48**	1.48
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	10	2 U	4 U	2 U	4 U	2 U	4 U	2 U
Bromide	2 GV	24959-67-9	(mg/l)	0.5 U	0.5 U	0.5 U	0.5 U	2.00 U	2.00 U	1.00 U	1.30 U	0.0500 U	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10.9	10 U	12	10 U	10.0 U	10.0 U	3.00 U	3.00 UJ	6.26 J	3.71 J
Chloride	250 ST	16887-00-6	(mg/l)	46.1	20.0	12.6	31.8	40.5	34.5	9.00	54.0 UB	35.0	100 DJ
Hardness (as CaCO3)	-	-	(mg/l)	30.0	24.0	26	38	58.9	106	41.1	91.7 UB	70.3	133
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	1.48	3.88	3.32 D	0.79	0.455	0.578	1.33 D	3.62 D	2.03	2.59 D
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.0100 U	0.0100 U	**0.0530**	**0.110**	**0.115**	**0.0646**
Sulfate	250 ST		(mg/l)	23.2	11.0	7.03	31	39.9	58.9	7.72	39.4 D	9.35	34.8
Total Organic Carbon	-	-	(mg/l)	1 U	1.0	2.1	1.3	1.3	2.1	1.00 U	1.00 U	1.00 U	3.58
Total Dissolved Solids	-	-	(mg/l)	155	77	74	110	177	179 D	88.0 D	250	150	280
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	6.49	1.13 U	2.18	2.03	4.98	7.31 D	4.22	1.56	2.56	1.75

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-12I 5/24/21 (mg/l)	MW-12I 9/8/22 (mg/l)	MW-12I 11/30/2023 (mg/l)	MW-12I 1/23/25 (mg/l)	MW-12I (mg/l)	MW-12I (mg/l)	MW-12I (mg/l)	MW-12I (mg/l)	MW-12I (mg/l)	MW-12I (mg/l)
Color (APHA Units)	-	-	(units)	5 U	3.0 J	35	90						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	54.1	74.5	71.5	77.6						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	**2.5**	**4.5**	0.95	0.28						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	4 U	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.070 J	1,000 U	0.5 U	0.5 U						
Chemical Oxygen Demand	-	-	(mg/l)	7.8 J	5.9	48.5	53.9						
Chloride	250 ST	16887-00-6	(mg/l)	34.5 J	57.5	10.4	20.7						
Hardness (as CaCO3)	-	-	(mg/l)	59	104	85.1	88.7						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	2.7	0.06	0.17	0.15						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.005 U	0.01 U	0.03 U						
Sulfate	250 ST		(mg/l)	20.7	50.4	6.1 J	8						
Total Organic Carbon	-	-	(mg/l)	0.67 J	1.1	9.3	9.8						
Total Dissolved Solids	-	-	(mg/l)	134	259	130 J	134						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	1.7 J	5.2	1.8	1.1						

NOTES:

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D&B ENGINEERS AND ARCHITECTS

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

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-12S 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)	MW-12S 03/20/2015 (mg/l)	MW-12S 05/12/2016 (mg/l)	MW-12S 8/23/2017 (mg/l)	MW-12S 11/29/2018 (mg/l)	MW-12S 2/26/2020 (mg/l)
Color (APHA Units)	-	-	(units)	5 U	20	20	15	1 U	5 U	5 U	30	20	5 U
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	63.9	81.6	88.0 D	288 D	107	93.0	97.0	101 UB	142	101
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	0.0500 UJ	0.0250 U	0.0250 U	0.0250 U	0.0543
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U	4 U	2 U	4 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	2.00 U	2.00 U	1.00 U	1.30 U	0.0645 J	0.0700 U
Chemical Oxygen Demand	-	-	(mg/l)	10.9	10 U	18.6	19.3	10.0 U	10.0 U	3.00 U	3.00 UJ	7.65 J	3.00 U
Chloride	250 ST	16887-00-6	(mg/l)	48.6	42.1	49.0	42.4	48.0	245	36.0	32.0 UB	74.6	44.4 J
Hardness (as CaCO3)	-	-	(mg/l)	90.0	80.0	120 D	88 D	43.2	122	95.8	152	132	98.6
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.81	1.34	1.22	0.37	0.347	1.06 D	1.68 D	4.22 D	1.57	2.00 D
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	5 U	0.005 U	0.005 U	0.00671 UB	**0.00727 J**	**0.0600**	**0.00740 J**	**0.0313**	**0.00931 J**
Sulfate	250 ST		(mg/l)	49.4	29.0	37.8	16.8	26.9	38.1	27.0	82.0 D	37.2	23.9
Total Organic Carbon	-	-	(mg/l)	1.4	1.2	3.3	5.1	1.8	2.1	1.92 J	1.65 J	4.21	3.07
Total Dissolved Solids	-	-	(mg/l)	200	192	233	227	258	532 D	222 D	360	350	240
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.1 U	0.56 U	0.63	0.15	1.48	0.418	0.770	0.328 J	0.200 U	0.200 U

CONSTITUENT	NYSDEC Class GA Groundwater Standards and Guidance Values	CAS #	SITE : DATE : UNITS	MW-12S 5/24/21 (mg/l)	MW-12S 9/8/22 (mg/l)	MW-12S 11/30/2023 (mg/l)	MW-12S 1/22/25 (mg/l)	MW-12S (mg/l)	MW-12S (mg/l)	MW-12S (mg/l)	MW-12S (mg/l)	MW-12S (mg/l)	MW-12S (mg/l)
Color (APHA Units)	-	-	(units)	5 U	5 U	50	190						
Alkalinity (as CaCO3)	-	471-34-1	(mg/l)	111	109	111	127						
Ammonia (as N)	2 ST	7664-41-7	(mg/l)	0.11	0.061 UB	0.10 U	0.059 J						
Biochemical Oxygen Demand	-	-	(mg/l)	2 U	2 U	2 U	2 U						
Bromide	2 GV	24959-67-9	(mg/l)	0.078 J	1,000 U	0.5 U	0.03 J						
Chemical Oxygen Demand	-	-	(mg/l)	14.2	14.7	33.4	73.4						
Chloride	250 ST	16887-00-6	(mg/l)	43.7 J	66.1	39.8	37.6						
Hardness (as CaCO3)	-	-	(mg/l)	94.7	125	134	133						
Nitrate (as N)	10 ST	14797-55-8	(mg/l)	0.84	0.62	1.5	2.2 J						
Phenols, total	0.001 ST	-	(mg/l)	0.005 U	0.0057 UB	0.01 U	0.03 U						
Sulfate	250 ST		(mg/l)	33.1	27.8	32.2 J	44.7 J						
Total Organic Carbon	-	-	(mg/l)	2.1	0.88	3.2	3.2						
Total Dissolved Solids	-	-	(mg/l)	220	300	270 J	299						
Total Kjeldahl Nitrogen (as N)	-	7727-37-9	(mg/l)	0.30 UBJ	0.38	0.50 U	1.7						

NOTES:

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: Concentration exceeds Standard/Guidance Value

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

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

-: No standard or guildance value

D&B ENGINEERS AND ARCHITECTS

APPENDIX B-2

MONITORING WELL SAMPLE RESULTS – INORGANIC PARAMETERS

Appendix B-2
SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	SITE: DATE: UNITS:	MW-01D 5/26/2011 (ug/l)	MW-01D 8/28/2012 (ug/l)	MW-01D 11/12/2013 (ug/l)	MW-01D 03/17/2015 (ug/l)	MW-01D 05/10/2016 (ug/l)	MW-01D 8/21/2017 (ug/l)	MW-01D 11/29/2018 (ug/l)	MW-01D 2/24/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	3,070	133 B	39.2	48.6	195 UB	34.1 UB	94.2	133
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	22.4 B	16.3 B	43.8	172	65.1 UB	99.8	234	89.1
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	5.5 B	66.3 B	44	20 U	58.4	73.2	65.4 UB	63.9
Cadmium	5 ST	7440-43-9	ug/l	3.3 B	0.6 B	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	9,050	7,140	2,670	7,750	5,080	6,800	18,600	19,800
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	8.9 B	10 U	10.0 U	2.5 UJ	2.50 U	2.5 UJ	2.50 U
Chromium Total	50 ST	7440-47-3	ug/l	6.9 B	8.0 B	20 U	20 U	5 U	4 U	5.7 J	5 U
Cobalt	-	7440-48-4	ug/l	1.8 B	.52 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	12.0 B	.7 U	20 U	20 U	5 U	3.16 J	4.7 UB	5 U
Iron	300 ST	7439-89-6	ug/l	**3,780**	104	20.1 UB	14.2 UB	27.8 UB	22.3 UB	43.7 UB	19.9 J
Lead	25 ST	7439-92-1	ug/l	20.4	18.5	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	2,410 B	1,510 B	650	1,470	1,120 UB	1,400 UB	3,620	4,690
Manganese	300 ST	7439-96-5	ug/l	104	23.2	24.1	**866**	13.2 J	111	**1,260**	**380**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	.1 U	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	3.9 B	1.7 B	20 U	6.98 J	5 U	3 U	16.7 J	7.6 J
Potassium	-	7440-09-7	ug/l	5,000	6,760	3,470	7,950	3,550 UB	5,430	6,740	5,260
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.8 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	2,980 B	**26,300**	13,000	**31,700**	19,100 UB	17,300 UB	**166,000**	**34,800**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	3.2 U	15 U	15 U	10 U	7 U	10 U	10 U
Vanadium	-	7440-62-2	ug/l	8.2 B	.6 B	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	76.4	29.8	11 UB	20 U	14.6 UB	19.4 UB	20.3 UB	25.7
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	47.6 UB	6.38 J	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**3,884**	127.2	44.2	**866**	13.2 J	111	**1,260**	400

NOTES:

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

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

J: Estimated due to data validation criteria.

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

UJ: Value was not detected above quantitation limit but was an appoximate.

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-2
SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
INORGANIC PARAMETERS

CONSTITUENT	NYSDEC Class GA Groundwater Standards/ Guidance Values	CAS #	SITE: DATE: UNITS:	MW-01D 5/20/2021 (ug/l)	MW-01D 8/30/2022 (ug/l)	MW-01D 11/28/2023 (ug/l)	MW-01D 1/21/2025 (ug/l)	MW-01D (ug/l)	MW-01D (ug/l)	MW-01D (ug/l)	MW-01D (ug/l)
Aluminum	-	7429-90-5	ug/l	315	338	1260	828				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 U	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	58.4 J	54.1	33.7 J	200 U				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	58.1	64.3	45.8 J	17.3 J				
Cadmium	5 ST	7440-43-9	ug/l	0.33 J	2.5 U	**9.6**	4.8				
Calcium	-	7440-70-2	ug/l	17,100	14,600	13,200	6,660				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 UJ	20 U	20 U	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	2.9 J	10 U	4.2 J	3.7 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	9.2 J	5.9 J				
Iron	300 ST	7439-89-6	ug/l	20 U	100 U	**1,860**	**1,260 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	8.8	6.1				
Magnesium	35,000 GV	7439-95-4	ug/l	4,230	4,300	3,480	1,510				
Manganese	300 ST	7439-96-5	ug/l	**599**	**339**	172	216				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	28.4 J	46.2	20.1 J	9.6 J				
Potassium	-	7440-09-7	ug/l	4,690 J	4,160	16,300	7,400				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	10 U	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**37,300**	**30,500**	18,100	6,340				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	4.4 UB	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	78.2	48				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 UJ	10 U				
Iron + Manganese	500 ST*	-	ug/l	**599**	339	**2,032**	**1476**				

NOTES:

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B: Concentration is above instrument detection limit but below contract required detection limit.
N: Matrix spike sampe recovery not within control limits.

ST: Standard.
GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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 5/26/2011 (ug/l)	MW-01I 8/28/2012 (ug/l)	MW-01I 11/12/2013 (ug/l)	MW-01I 03/17/2015 (ug/l)	MW-01I 05/10/2016 (ug/l)	MW-01I 8/21/2017 (ug/l)	MW-01I 11/29/2018 (ug/l)	MW-01I 2/24/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	8.2 U	38.2 B	10.8 J	9.19 J	166 UB	8.78 UB	18.8 UB	22.0
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	4.9 B	10.1 B	83	52.3	26.8 UB	59.9	24.5	30.8
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	24.4 B	33.8 B	83	20 U	25.9 UB	24.5	39.1 UB	27.8
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	5,290	6,230	27,400	8,930	7,110	10,600 UB	11,900	8,910
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	.2 U	**97.3**	10.0 U	2.5 UJ	2.50 U	2.5 UJ	2.50 U
Chromium Total	50 ST	7440-47-3	ug/l	1.3 B	8.0 B	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	0.49 U	.52 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	1.9 B	.7 U	20 U	20 U	5 U	3.49 J	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	71.0 B	13.8 B	8.88 UB	5.75 UB	32 UB	45 UB	24.8 UB	20.8
Lead	25 ST	7439-92-1	ug/l	1.5 U	6.6	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	1,940 B	1,340 B	6,560	1,940	1,650 UB	2,250 UB	2,620	2,070
Manganese	300 ST	7439-96-5	ug/l	9.6 B	**1,440**	**1,720**	**1,180**	13.4 J	16.3 J	9 J	10.9 J
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	.1 U	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	1.2 U	2.1 B	20 U	20 U	5 U	3 U	5 U	5.0 J
Potassium	-	7440-09-7	ug/l	1,620 B	4,150 B	6,850	5,360	2,630 UB	3,990 UB	2,730	2,470
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.8 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	6,510	1,820	8,930	8,060	4,470 UB	7,600 UB	7,170	16,400
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	**3.9 B**	15 U	15 U	10 U	7 U	10 U	**6.0 J**
Vanadium	-	7440-62-2	ug/l	0.56 U	.23 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	9.1 B	23.7	9.84 UB	20 U	11.2 UB	18.5 UB	12.4 UB	22.0
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10 U	48 UB	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	80.6	**1,453.8**	**1,728.9**	**1,180**	13.4 J	16.3	9	31.7 J

NOTES:

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GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/20/2021 (ug/l)	MW-01I 8/30/2022 (ug/l)	MW-01I 11/28/2023 (ug/l)	MW-01I 1/21/2025 (ug/l)	MW-01I (ug/l)	MW-01I (ug/l)	MW-01I (ug/l)	MW-01I (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	83.7 J	96.1 J				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 U	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	15.8 J	39.3	23.9 J	200 U				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	19.3 J	25.3 UB	25.5 UB	23.5 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	**9.4**	**6.2**				
Calcium	-	7440-70-2	ug/l	9,980	17,300	9,660	5,660				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 UJ	20 U	20 U	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	10 U	1 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	25 U	25 U				
Iron	300 ST	7439-89-6	ug/l	44.4	71	242	281 J				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	1,840	3,280	1,820	1,070				
Manganese	300 ST	7439-96-5	ug/l	10.3	95.7	193	169				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	9.6 J	32.1	11.8 J	11.6				
Potassium	-	7440-09-7	ug/l	2,410 J	4,670	3,900	3,270				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	10 U	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	10,900	19,300	18,100	**21,900**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	27.8	24.4				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 UJ	10 U				
Iron + Manganese	500 ST*	-	ug/l	54.7	167	435	450.0				

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Concentration exceeds Standard/Guidance Value.

Appendix B-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 5/26/2011 (ug/l)	MW-01S 8/28/2012 (ug/l)	MW-01S 11/12/2013 (ug/l)	MW-01S 03/17/2015 (ug/l)	MW-01S 05/10/2016 (ug/l)	MW-01S 8/21/2017 (ug/l)	MW-01S 11/29/2018 (ug/l)	MW-01S 2/24/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	8.2 U	53.8 B	13.4 J	10.2 J	447	15.2 UB	33 UB	41.7
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	**12.5 J**	**5.41 J**	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	43.7 B	44 B	49.3	67.6	109 UB	88.1	61.4	50.7
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	64.1 B	80.5 B	49	20 U	64.2	78.3	89.7	75.7
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	2.5 J
Calcium	-	7440-70-2	ug/l	61,800	61,600	44,700	53,000	55,500	60,100	55,700	67,900
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.02 U	10 U	10.0 U	2.5 UJ	2.50 U	2.5 UJ	2.50 U
Chromium Total	50 ST	7440-47-3	ug/l	1.9 B	8.0 B	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	.88 B	1.7 B	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	2.4 B	.7 U	20 U	20 U	5 U	3.5 J	3.7 UB	6.7 J
Iron	300 ST	7439-89-6	ug/l	**2,480**	**3,910**	**1,690**	**3,670**	**1,800**	**6,050**	**4,500**	**479**
Lead	25 ST	7439-92-1	ug/l	1.5 U	5.4	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	8,650	6,620	5,270	6,270	6,660	7,020 UB	5,930	9,760
Manganese	300 ST	7439-96-5	ug/l	**1,000**	**723**	**377**	**1,660**	**937**	**2,380**	**1,380**	**303**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	1.2 U	1.4 B	20 U	20 U	5 U	3 U	5 U	5 U
Potassium	-	7440-09-7	ug/l	16,500	16,200	13,300	11,400	13,100	13,100	11,100	6,880
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.8 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	**90,200**	**49,100**	7,860	12,400	27,000 UB	10,700 UB	**28,000**	**36,100**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	**3.5 B**	15 U	15 U	10 U	7 U	10 U	**6.1 J**
Vanadium	-	7440-62-2	ug/l	0.56 U	.23 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	13.8	46	14 UB	6.97 J	25.4 UB	34.6 UB	22.8 UB	28.6
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	41.6 UB	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**3,480**	**4,633**	**2,067**	**5,330**	**2,737**	**8,430**	**5,880**	**782**

NOTES:

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Concentration exceeds Standard/Guidance Value.

Appendix B-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 5/20/2021 (ug/l)	MW-01S 8/30/2022 (ug/l)	MW-01S 11/28/2023 (ug/l)	MW-01S 1/21/2025 (ug/l)	MW-01S (ug/l)	MW-01S (ug/l)	MW-01S (ug/l)	MW-01S (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	109 J	278				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	6.0 UB	6.8 J	10 U				
Barium	1,000 ST	7440-39-3	ug/l	32.4 J	35.4	42	78.7 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	48.7 J	94.1	82.9	96.4				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	**8.4**	**12.7**				
Calcium	-	7440-70-2	ug/l	67,100	73,500	67,300	100,000				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 UJ	20 U	20 U	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	10 U	1.3 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	9.5 J	5.9 J				
Iron	300 ST	7439-89-6	ug/l	**2,430**	**3,150**	**6,400**	**6,270 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	6,760	7,990	6,470	11,000				
Manganese	300 ST	7439-96-5	ug/l	**550**	**318**	177	246				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	7.5 J	18.8	13.2	18.7 J				
Potassium	-	7440-09-7	ug/l	11,300	10,700	9,950	12,600				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	10 U	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**59,800**	**47,200**	**38,000**	**50,900**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	51.9	50				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 U	10 U				
Iron + Manganese	500 ST*	-	ug/l	**2,980**	**3,468**	**6,577**	**6,516**				

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Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/31/2011 (ug/l)	MW-02D 8/28/2012 (ug/l)	MW-02D 11/12/2013 (ug/l)	MW-02D 03/17/2015 (ug/l)	MW-02D 05/10/2016 (ug/l)	MW-02D 8/21/2017 (ug/l)	MW-02D 11/29/2018 (ug/l)	MW-02D 2/24/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	36.7 B	45.1 B	20 U	24.1	259	30.6 UB	18.1 UB	27.7
Antimony	3 GV	7440-36-0	ug/l	**6.0 B**	1.1 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	10.3 J	10 U
Barium	1,000 ST	7440-39-3	ug/l	5.3 B	72.8 B	15.2 J	28.1	41.5 UB	49.6 UB	37	46.0
Beryllium	3 GV	7440-41-7	ug/l	0.73 B	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	23.6 B	35.6 B	15 J	20 U	21.3 UB	14.7	32.3 UB	21.5
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	5,380	34,500	7,980	16,600	13,400	16,500 UB	12,300	13,000
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	.2 U	10 U	10.0 U	2.5 U	2.50 U	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	2.2 B	8.0 B	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	0.70 B	.52 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	1.4 B	.7 U	20 U	20 U	5 U	3.8 J	3.7 UB	5 U
Iron	300 ST	7439-89-6	ug/l	39.0 B	37.7 B	29.9 UB	47.6 UB	53 UB	76	30.3 UB	38.9
Lead	25 ST	7439-92-1	ug/l	2.1 B	4	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	2,720 B	3,340 B	3,950	6,810	6,370	7,990 UB	5,950	6,430
Manganese	300 ST	7439-96-5	ug/l	2.4 B	43.3	20 U	20 U	5 U	5.08 J	5 U	2.3 J
Mercury	0.7 ST	7439-97-6	ug/l	0.10 UN	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	2.3 B	1 B	20 U	20 U	5 U	3 U	5 U	5 U
Potassium	-	7440-09-7	ug/l	1,290 B	5,330	826	1,580	1,390 UB	1,670 UB	1,490	1,570
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.8 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 UN	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	7,690	**20,400**	3,390	5,710	9,700 UB	7,660 UB	**26,800**	**41,400**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	3.2 U	15 U	15 U	10 U	7 U	10 U	10 U
Vanadium	-	7440-62-2	ug/l	0.76 B	.3 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	21.6	18.5 B	12.1 UB	20 U	12.1 UB	28.3 UB	17.6 UB	22.9
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	43 UB	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	41.4	81	29.9	0	0	81.08	0	41.2

NOTES:

U: Analyzed for but not detected, value shown is instrument detection limit.
U* or UB: Result qualified as non-detect based on validation criteria
J: Estimated due to data validation criteria.
J*: Value is an approximate concentration of the analyte as determined by data validation.
UJ: Value was not detected above quantitation limit but was an appoximate.
B: Concentration is above instrument detection limit but below contract required detection limit.
N: Matrix spike sampe recovery not within control limits.

ST: Standard.
GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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 5/20/2021 (ug/l)	MW-02D 8/31/2022 (ug/l)	MW-02D 11/28/2023 (ug/l)	MW-02D 1/21/2025 (ug/l)	MW-02D (ug/l)	MW-02D (ug/l)	MW-02D (ug/l)	MW-02D (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	37.6 J	54.5 J				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 U	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	14.1 J	16.0 J	200 U	200 U				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	17.5 J	30.9 UB	64.6	142				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	2.5 U	2.5 U				
Calcium	-	7440-70-2	ug/l	8,690	11,600	11,000	16,300				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 UJ	20 U	20 U	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	1.2 J	10 U	10 U	2.4 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	25 U	25 U				
Iron	300 ST	7439-89-6	ug/l	21.4	100 U	83.6 J	73.3 J				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	4,130	5,460	5,660	7,620				
Manganese	300 ST	7439-96-5	ug/l	10 U	10 U	9.1 J	5 J				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	10.9 J	24.1 J	12.7 J	17.4 J				
Potassium	-	7440-09-7	ug/l	1,570 J	2,110 UB	1440 J	1920 J				
Selenium	10 ST	7782-49-2	ug/l	10 U	7.9 J	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	10 U	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**42,400**	**37,100**	17,200	**24,300**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	17.4 J	9.6 J				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 UJ	10 U				
Iron + Manganese	500 ST*	-	ug/l	21.4	110 U	92.7	78.3				

NOTES:

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J*: Value is an approximate concentration of the analyte as determined by data validation.
UJ: Value was not detected above quantitation limit but was an appoximate.
B: Concentration is above instrument detection limit but below contract required detection limit.
N: Matrix spike sampe recovery not within control limits.

ST: Standard.
GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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-02I 5/31/2011 (ug/l)	MW-02I 8/28/2012 (ug/l)	MW-02I 11/12/2013 (ug/l)	MW-02I 03/17/2015 (ug/l)	MW-02I 05/10/2016 (ug/l)	MW-02I 8/21/2017 (ug/l)	MW-02I 11/29/2018 (ug/l)	MW-02I 2/24/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	32.3 B	49.5 B	7.35 J	5.15 J	63.5 UB	9.99 UB	20.7 UB	20.4
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	**6.58 J**	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	45.0 B	5.4 B	62.9	83.7	281	86.6	54.6	37.1
Beryllium	3 GV	7440-41-7	ug/l	0.26 B	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	36.9 B	20.6 B	63	20 U	54.7	53.1	52.5 UB	32.0
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	13,900	7,540	25,400	26,600	34,300	21300 UB	23,400	13,000
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	.2 U	10 U	10.0 U	2.5 UJ	2.50 U	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	2.1 B	8.0 B	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	0.49 U	.52 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	1.0 B	.7 U	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	110	35.2 B	20 U	6.53 UB	6.46 UB	23.9 UB	20.6 UB	17.4 J
Lead	25 ST	7439-92-1	ug/l	2.1 B	8	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	1,620 B	3,270 B	2,550	2,860	3,810	2,860 UB	3,940	2,140
Manganese	300 ST	7439-96-5	ug/l	25.6	2.4 B	14.8 J	79.2	70	**1,100**	**685**	**443**
Mercury	0.7 ST	7439-97-6	ug/l	0.12 BNU*	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	1.8 B	2.3 B	20 U	20 U	5 U	3 U	5 U	5 U
Potassium	-	7440-09-7	ug/l	3,790 B	978 B	5,050	5,110	19,400	5,330	2,950	2,450
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.8 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 UN	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	18,600	7,630	4,130	10,900	41,300 UB	7,040 UB	12,500	11,100
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	3.2 U	15 U	15 U	10 U	7 U	10 U	10 U
Vanadium	-	7440-62-2	ug/l	0.56 U	.23 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	17.8 B	20.8	12.6 UB	20 U	8.81 UB	17.6 UB	11.4 UB	21.8
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	45.4 UB	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	135.6	37.6	14.8	79.2	70	**1,100**	**685**	460

NOTES:

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UJ: Value was not detected above quantitation limit but was an appoximate.

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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-02I 5/20/2021 (ug/l)	MW-02I 8/31/2022 (ug/l)	MW-02I 11/28/2023 (ug/l)	MW-02I 1/21/25 (ug/l)	MW-02I (ug/l)	MW-02I (ug/l)	MW-02I (ug/l)	MW-02I (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	47.1 J	66.1 J				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 U	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	23.1 J	34.7	18.1 J	21.5 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	26.9 J	34.6 UB	24.0 UB	20.5 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	1.4 J	1.6 J				
Calcium	-	7440-70-2	ug/l	11,000	14,200	8,260	12,100				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 U	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	10 U	1.6 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	25 U	25 U				
Iron	300 ST	7439-89-6	ug/l	20 U	100 U	104	123 J				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	1,830	2,670	1,280	1,730				
Manganese	300 ST	7439-96-5	ug/l	169	83.5	70.4	35.3				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	5.7 J	16.8	6 J	40 U				
Potassium	-	7440-09-7	ug/l	1,680 J	2,320 UB	1,640 J	2280 J				
Selenium	10 ST	7782-49-2	ug/l	10 U	9.2 J	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	10 U	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	14,200	17,100	11,100	16,700				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	24.3	43.1				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 UJ	10 U				
Iron + Manganese	500 ST*	-	ug/l	169	83.5	174	158				

NOTES:

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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 6/1/2011 (ug/l)	MW-03S 8/28/2012 (ug/l)	MW-03S 11/13/2013 (ug/l)	MW-03S 03/18/2015 (ug/l)	MW-03S 05/11/2016 (ug/l)	MW-03S 8/23/2017 (ug/l)	MW-03S 11/29/2018 (ug/l)	MW-03S 2/25/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	40.4	66 B	13 J	10.1 J	23.4 UB	123 B	35.4	39.7
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	7.2 J	10 U
Barium	1,000 ST	7440-39-3	ug/l	145 B	202	199	196	223	220	191	215
Beryllium	3 GV	7440-41-7	ug/l	0.24 B	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	126	202	97	20 U	110	184 J	134	142
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	57,600	64,500	58,900	57,600	60,100 J	66,800	57,900	78,200
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	.2 U	10 U	10.0 U	2.5 U	2.50 U	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	1.6 B	8.0 B	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	0.49 U	.52 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	0.55 U	.7 U	20 U	20 U	5 U	3 U	3.6 UB	5 U
Iron	300 ST	7439-89-6	ug/l	**17,100**	**19,900**	**13,600**	**16,400**	**18,500**	**19,200**	**17,300**	**27,600**
Lead	25 ST	7439-92-1	ug/l	6.3	4.8	15 U	14.5 J	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	9,270	8,370	8,640	7,590	7,990 J	8,800 UB	7,030	9,820
Manganese	300 ST	7439-96-5	ug/l	**4,530**	**5,440**	**5,100**	**4,790**	**5,150**	**6,660**	**2,970**	**3,790**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 UN	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	2.0 B	1.6 B	20 U	20 U	5 U	8.52 UB	5 U	8.3 J
Potassium	-	7440-09-7	ug/l	12,500	11,100	12,400	11,400 J	11,100	10,600 J	8,590	10,000
Selenium	10 ST	7782-49-2	ug/l	2.6 U*J*	4.5 B	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.54 BN	.48 B	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	**34,100**	**33,100**	12,200	12,200	12,700 UB	9,870 UBJ	**30,000**	**35,500**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	**6.4 B**	15 U	15 U	10 U	7 U	10 U	10 U
Vanadium	-	7440-62-2	ug/l	1.8 B	.23 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	18.0 B	13.1 B	12.8 UB	32.9	60.5 J	80 UB	42.5 UB	37.5
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	47.1 UBJ	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**21,630**	**25,340**	**18,700**	**21,190**	**23,650**	**25,860**	**20,270**	**31,390**

NOTES:

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ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/24/2021 (ug/l)	MW-03S 9/7/2022 (ug/l)	MW-03S 12/1/2023 (ug/l)	MW-03S 1/23/2025 (ug/l)	MW-03S (ug/l)	MW-03S (ug/l)	MW-03S (ug/l)	MW-03S (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	284	1270				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 U	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	142 J	184	138	186 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	99.4	127	83.3	94.8				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	4.9	**24.3**				
Calcium	-	7440-70-2	ug/l	60,100	70,000	60,600 J	79,600				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 UJ	20 U	20 UJ	20 UJ				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	10 U	3.4 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	25 U	28				
Iron	300 ST	7439-89-6	ug/l	**17,300**	**19,000**	**14,000 J**	**22200 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	6.4				
Magnesium	35,000 GV	7439-95-4	ug/l	7,420	8,460	6,950	8880				
Manganese	300 ST	7439-96-5	ug/l	**2,450**	**2,440**	**2,330 J**	**2730**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	11.4 J	24.4	15.8	31.2 J				
Potassium	-	7440-09-7	ug/l	8,310	9,870	8,010	9880				
Selenium	10 ST	7782-49-2	ug/l	10 U	9.6 J	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	10 U	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**34,000**	**45,700**	**32,900 J**	**33300**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	8.4 J				
Zinc	2,000 ST	7440-66-6	ug/l	31.8	20 U	34	197				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 U	10 U				
Iron + Manganese	500 ST*	-	ug/l	**19,750**	**21,440**	**16,330**	**24930**				

NOTES:

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ST: Standard.
GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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-04D 5/26/2011 (ug/l)	MW-04D 8/27/2012 (ug/l)	MW-04D 11/13/2013 (ug/l)	MW-04D 03/18/2015 (ug/l)	MW-04D 05/11/2016 (ug/l)	MW-04D 8/22/2017 (ug/l)	MW-04D 11/30/2018 (ug/l)	MW-04D 2/25/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	8.2 U	51.5 B	15.1 J	20 U	14.6 UB	7.18 UB	25.4 UB	26.1
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	20 U	**5.75 J**	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	17.1 J	16.9 J	17.8 J	16.4 J	19.5 J	13.6 J
Barium	1,000 ST	7440-39-3	ug/l	27.0 B	1.3 U	115	86	115 UB	146 J	208	97.6
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	25.7 B	41.1 B	85	20 U	92	295	120	65
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	12,900	13,100	22,300	16,200	19,800 J	23,000 UB	35,200	21,500
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.2 U	10 U	10.0 U	2.5 U	2.50 U	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	0.89 B	0.02 U	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	0.62 B	1.2 B	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	1.6 B	0.52 U	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	**1,570**	**2,630**	**40,800**	**37,300**	**51,200**	**58,000**	**56,300**	**32,100**
Lead	25 ST	7439-92-1	ug/l	1.5 U	8.5	5.82 J	15 U	5 U	8.68 J	5 U	6.2 J
Magnesium	35,000 GV	7439-95-4	ug/l	1,870 B	2000 B	3,180	2,410	3,740 J	5,530 UB	6,490	4,500
Manganese	300 ST	7439-96-5	ug/l	81.4	226	**2,190**	**2,510**	**4,940**	**6,400**	**7,190**	**4,040**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	.1 U	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	8.5 B	3.0 B	5.25 J	20 U	5.22 J	7.76 UB	7.2 J	8.3 J
Potassium	-	7440-09-7	ug/l	4,520 B	4,780 B	6,090	5,130 J	5,370 UB	6,070 J	8,010	4,810
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.4 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	9,120	10,000	12,900	9,640	12,200 UB	11,800 UBJ	**51,300**	**36,100**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	3.2 U	15 U	15 U	10 U	7 U	10 U	10 U
Vanadium	-	7440-62-2	ug/l	.56 U	0.32 U	20 U	20 U	5 U	3 U	3.1 J	5 U
Zinc	2,000 ST	7440-66-6	ug/l	51.2	26.1	15.7 UB	20 U	56.7 J	19.2 UB	20.3 UB	43.8
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10 U	41.7 UBJ	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**1,651.4**	**2,856**	**42,990**	**39,810**	**56,140**	**64,400**	**63,490**	**36,140**

NOTES:

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

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

J: Estimated due to data validation criteria.

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

UJ: Value was not detected above quantitation limit but was an appoximate.

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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-04D 5/20/2021 (ug/l)	MW-04D 9/7/2022 (ug/l)	MW-04D 11/29/2023 (ug/l)	MW-04D 1/24/2025 (ug/l)	MW-04D (ug/l)	MW-04D (ug/l)	MW-04D (ug/l)	MW-04D (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	200 U	110 J				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	14.5	18.9 UB	19.2	16.7				
Barium	1,000 ST	7440-39-3	ug/l	65.5 J	59.9	76.2 J	82 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	33.8 J	43.9 UB	35.4 J	15.8 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	2.5 U	1.4 J				
Calcium	-	7440-70-2	ug/l	19,800	18,900	22,200	25,100				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 UJ	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	1.3 J	10 U	10 U	10 U				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	6 J	25 U	8.9 UB	9.9 J				
Iron	300 ST	7439-89-6	ug/l	**33,800**	**35,100**	**39,800**	**46,800 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	4,350	4,750	4,350	4880				
Manganese	300 ST	7439-96-5	ug/l	**4,740**	**6,230**	**7,300**	**9660**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	11 J	25.8	13.2	18.6 J				
Potassium	-	7440-09-7	ug/l	3,970 J	3,900	4,120 J	3590 J				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	**11.1**	**10.8**				
Silver	50 ST	7440-22-4	ug/l	10 UJ	2.6 UBJ	3.2 UBJ	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**36,300**	**31,900**	**39,600**	**39600**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	**8.7 J**				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	20 U	21.5				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 UJ	10 U				
Iron + Manganese	500 ST*	-	ug/l	**38,540**	**41,330**	**47,100**	**56460**				

NOTES:

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

UJ: Value was not detected above quantitation limit but was an appoximate.

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/26/2011 (ug/l)	MW-04I 8/27/2012 (ug/l)	MW-04I 11/13/2013 (ug/l)	MW-04I 03/18/2015 (ug/l)	MW-04I 05/11/2016 (ug/l)	MW-04I 8/22/2017 (ug/l)	MW-04I 11/30/2018 (ug/l)	MW-04I 2/25/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	8.2 U	38.2 B	7.13 J	6.67 J	22.6 UB	5.64 UB	31.8 UB	32.9
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	20 U	**7.56 J**	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	11.4	10.2	12.4 J	11.1 J	13.2 J	13.3 J	22 J	10 U
Barium	1,000 ST	7440-39-3	ug/l	24.3 B	38.6 B	134	116	178	221 J	142	165
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	113	72.4 B	71	20 U	93	271	120	92
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	16,200	48,800	26,800	35,300	53,200 J	80,900	64,000	49,200
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	.2 U	10 U	10.0 U	2.5 U	2.50 U	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	1.8 B	10.6	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	.55 B	.52 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	1.6 B	.7 U	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	**16,600**	**36,400**	**19,700**	**15,300**	**19,400**	**37,500**	**23,300**	**16,600**
Lead	25 ST	7439-92-1	ug/l	5.1	1.8 B	15 U	15 U	5 U	5.42 J	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	2,040 B	4,530 B	2,250	2,700	5,390 J	8,640 UB	6,820	5,070
Manganese	300 ST	7439-96-5	ug/l	**1,180**	**4,690**	**2,700**	**1,550**	**1,430**	**2,400**	**1,980**	**1,500**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	1.2 U	.64 U	20 U	20 U	5 U	3.17 UB	5 U	4.5 J
Potassium	-	7440-09-7	ug/l	4,510 B	5,450	13,100	19,700 J	23,100	19,600 J	10,000	12,000
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	3.7 B	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	.49 B	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	19,600	**54,200**	**20,800**	9,350	17,700 UB	12,400 UBJ	**46,300**	**68,500**
Thallium	0.5 GV	7440-28-0	ug/l	**3.4 B**	**3.2 B**	15 U	15 U	10 U	7 U	10 U	**5.6 J**
Vanadium	-	7440-62-2	ug/l	1.0 B	.23 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	17.6 B	47.1	15.1 UB	20 U	39.1 UBJ	13 UB	13.7 UB	21.5
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	43.5 UBJ	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**17,780**	**41,090**	**22,400**	**16,850**	**20,830**	**39,900**	**25,280**	**18,100**

NOTES:

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

N: Matrix spike sampe recovery not within control limits.

Concentration exceeds Standard/Guidance Value.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/20/2021 (ug/l)	MW-04I 9/7/2022 (ug/l)	MW-04I 11/29/2023 (ug/l)	MW-04I 1/24/2025 (ug/l)	MW-04I (ug/l)	MW-04I (ug/l)	MW-04I (ug/l)	MW-04I (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	75.6 UB	53.4 J				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	7.2 J	10.4 UB	14.7	5.8 J				
Barium	1,000 ST	7440-39-3	ug/l	55.3 J	46.8	55.6 J	54.1 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	50.5	49.4	47.5	40.4 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	3.7	2.5				
Calcium	-	7440-70-2	ug/l	29,100	31,900	26,900	32600				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 UJ	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	10 U	10 U				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	9.9 J	6.5 J				
Iron	300 ST	7439-89-6	ug/l	**10,100**	**11,200**	**11,500**	**10,900 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	2,990	3,180	2,690	2740				
Manganese	300 ST	7439-96-5	ug/l	**1,050**	**1,210**	**1,710**	**1310**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	5.5 J	12.4	6.3	10.1 J				
Potassium	-	7440-09-7	ug/l	6,600	5,600	6,030	5920				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	2.4 UBJ	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**40,600**	**35,200**	**26,600**	**31300**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	32.8	27.3				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 UJ	10 U				
Iron + Manganese	500 ST*	-	ug/l	**11,150**	**12,410**	**13,210**	**12210**				

NOTES:

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GV: Guidance value.

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Concentration exceeds Standard/Guidance Value.

Appendix B-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 5/31/2011 (ug/l)	MW-04S 8/27/2012 (ug/l)	MW-04S 11/13/2013 (ug/l)	MW-04S 03/18/2015 (ug/l)	MW-04S 05/11/2016 (ug/l)	MW-04S 8/22/2017 (ug/l)	MW-04S 11/30/2018 (ug/l)	MW-04S 2/25/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	28.0 B	73.9 B	17.5 J	14.6 J	54 UB	24.5 UB	41.5	43.7
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	**7.92 J**	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	2.7 B	8.1 B	10.2 J	25 U	10 U	8.58 J	14.9 J	15.8 J
Barium	1,000 ST	7440-39-3	ug/l	298	379	282	293	335	414 J	303	278
Beryllium	3 GV	7440-41-7	ug/l	0.19 B	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	181	213	158	20 U	186	443	186	168
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	90,100	129,000	84,500	96,400	105,000 J	133,000 UB	98,800	87,300
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.02 U	10 U	10.0 U	2.5 UJ	2.50 U	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	1.7 B	13.3	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	1.1 B	.52 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	0.55 U	.7 U	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	**39,000**	**60,200**	**37,200**	**39,100**	**43,200**	**50,800**	**38,900**	**37,700**
Lead	25 ST	7439-92-1	ug/l	11.3	9.6	15 U	15 U	5 U	7.18 J	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	10,700	12,400	8,300	8,880	10,200 J	12,400 UB	9,450	9,000
Manganese	300 ST	7439-96-5	ug/l	**2,250**	**3,240**	**2,520**	**2,800**	**3,220**	**3,090**	**3,040**	**2,430**
Mercury	0.7 ST	7439-97-6	ug/l	0.19 BNU*	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	2.2 B	.64 U	5.04 J	20 U	5.09 J	5.16 UB	3.7 J	9.6 J
Potassium	-	7440-09-7	ug/l	18,400	20,600	15,200	17200 J	17,500	19,400 J	13,100	13,800
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.8 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.75 BN	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	**39,300**	**51,000**	11,500	13,300	14,100 UB	10,400 UBJ	**27,100**	**40,500**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	3.2 U	15 U	15 U	10 U	7 U	10 U	10 U
Vanadium	-	7440-62-2	ug/l	2.9 B	1.5 B	20 U	20 U	5 U	3 U	3.2 J	5 U
Zinc	2,000 ST	7440-66-6	ug/l	13.5	10.2 B	17 UB	20 U	13.7 UBJ	19.7 UB	35.6 UB	37.3
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	45.4 UBJ	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**41,250**	**63,440**	**39,720**	**41,900**	**46,420**	**53,890**	**41,940**	**40,130**

NOTES:

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GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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 5/21/2021 (ug/l)	MW-04S 9/7/2022 (ug/l)	MW-04S 11/29/2023 (ug/l)	MW-04S 1/24/2025 (ug/l)	MW-04S (ug/l)	MW-04S (ug/l)	MW-04S (ug/l)	MW-04S (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	719	144 J				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	8.4 J	9.6 UB	19.7	10.4				
Barium	1,000 ST	7440-39-3	ug/l	262	299	382	299				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	127	153	156	140				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	2.5 U	1.2 J				
Calcium	-	7440-70-2	ug/l	88,900	96,600	116,000	96100				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 UJ	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	10 U	10 U				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	7.3 J	25 U	22.6 J	8.8 J				
Iron	300 ST	7439-89-6	ug/l	**39,600**	**40,900**	**63,330**	**48,600 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	3.5 J	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	8,320	9,070	10,100	8880				
Manganese	300 ST	7439-96-5	ug/l	**2,180**	**2,220**	**2,470**	**2270**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	15.5 J	31.4	22.2 J	24.7 J				
Potassium	-	7440-09-7	ug/l	15,100	14,600	16,500	13900				
Selenium	10 ST	7782-49-2	ug/l	10 U	7.5	10	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	3.4 UBJ	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**43,900**	**46,500**	**47,200**	**45600**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	9.0 J	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	37.4	9.1 J				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	12.7 J	10 U				
Iron + Manganese	500 ST*	-	ug/l	**41,780**	**43,120**	**65,800**	**50870**				

NOTES:

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

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J: Estimated due to data validation criteria.

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

UJ: Value was not detected above quantitation limit but was an appoximate.

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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 6/1/2011 (ug/l)	MW-05D 8/28/2012 (ug/l)	MW-05D 11/13/2013 (ug/l)	MW-05D 03/19/2015 (ug/l)	MW-05D 05/11/2016 (ug/l)	MW-05D 8/22/2017 (ug/l)	MW-05D 11/30/2018 (ug/l)	MW-05D 2/25/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	196 B	36.3 D	20 U	20 U	58.4 UB	3 U	16.9 UB	27.7
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	27.0 B	9.3 B	27.7	45.1	54.3 UB	40.5 UBJ	40.6	51.9
Beryllium	3 GV	7440-41-7	ug/l	0.17 B	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	31.4 B	29.1 B	24	20 U	26.9 UB	21.3	40.5 UB	28.3
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	14,900	4290 B	6,230	11,100	13,300 J	8,210	12,600	17,400
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.2 U	10 U	10.0 U	2.5 U	2.50 U	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	2.2 B	8.4	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	1..2 B	.52 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	1.8 B	.7 U	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	295	31.9 B	12.7 UB	13.5 UB	43.8 UB	71.9	36 UB	28.4
Lead	25 ST	7439-92-1	ug/l	5.6	9	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	7,380	1560 B	2,420	4,260	5,040 J	3,010 UB	4,790	6,580
Manganese	300 ST	7439-96-5	ug/l	**1,560**	25.2	**352**	244	169	66.6	41.6	45.8
Mercury	0.7 ST	7439-97-6	ug/l	0.10 UNU*J*	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	19.0 B	5.6	20 U	20 U	5 U	3 U	5 U	4.0 J
Potassium	-	7440-09-7	ug/l	2850 B	1400 B	1,620	2,670	3,840 UB	3,100 UBJ	3,050	3,810
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	4.7 B	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 UN	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	**23,500**	18,500	5,450	6,850	6,710 UB	4,740 UBJ	11,300	13,500
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	3..2 U	15 U	15 U	10 U	7 U	10 U	**5.3 J**
Vanadium	-	7440-62-2	ug/l	.68 B	.23 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	40.6	12 B	11.8 UB	20 U	108 J	17.7 UB	14.9 UB	31.0
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	43.4 UBJ	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**1,855**	25.2	352	244	169	138.5	41.6	74.2

NOTES:

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GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/21/2021 (ug/l)	MW-05D 9/7/2022 (ug/l)	MW-05D 12/1/2023 (ug/l)	MW-05D 1/24/2025 (ug/l)	MW-05D (ug/l)	MW-05D (ug/l)	MW-05D (ug/l)	MW-05D (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	765	647				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 U	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	63.2 J	51.1	49.6	75.9 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	22.6 J	39.0 UB	43.9 J	28.7 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	**11.5**	4				
Calcium	-	7440-70-2	ug/l	26,300	20,600	13,900 J	13,200				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 UJ	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	1.7 UB	2.3 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	25 U	25 U				
Iron	300 ST	7439-89-6	ug/l	28.2	100 U	**984 J**	**735 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	4.1 J	3.1 J				
Magnesium	35,000 GV	7439-95-4	ug/l	8,500	6,600	4,180 J	4,750				
Manganese	300 ST	7439-96-5	ug/l	62.3	114	**2,220 J**	**2,290**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	20.1 J	35.6	23.9	38.3 J				
Potassium	-	7440-09-7	ug/l	4,600 J	4,840	4,530	4270 J				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	10 U	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**35,500**	**31,400**	**26,200 J**	**20,800**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	39.4	46.7				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 U	10 U				
Iron + Manganese	500 ST*	-	ug/l	90.5	114	**3,204**	**3,025**				

NOTES:

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Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/31/2011 (ug/l)	MW-05I 8/28/2012 (ug/l)	MW-05I 11/13/2013 (ug/l)	MW-05I 03/19/2015 (ug/l)	MW-05I 05/11/2016 (ug/l)	MW-05I 8/22/2017 (ug/l)	MW-05I 11/30/2018 (ug/l)	MW-05I 2/25/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	36.4 B	42.9 B	7.67 J	9.05 J	18 UB	10 UB	31.4 UB	35.3
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	**6.59 J**	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.8 B	25 U	25 U	10 U	7 U	12.8 J	10 U
Barium	1,000 ST	7440-39-3	ug/l	34.1 B	20.6 B	107	65.2	38.2 UB	96.1 J	98.9	86.2
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	54.4 B	43.9 B	51	20 U	48.7	74.9	70.3	79.0
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.6 B	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	20,500	15,600	32,800	19,700	14,000 J	46,600	57,900	51,600
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.2 U	10 U	10.0 U	2.5 U	2.50 U	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	1.5 B	7.9	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	.49 U	.52 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	0.55 U	.7 U	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	**12,600**	**4,330**	**6,110**	**3,180**	**2,460**	**8,140**	**11,700**	**15,200**
Lead	25 ST	7439-92-1	ug/l	4.9	1.9 B	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	3,830 B	1840 B	3,510	2,010	2,150 J	6,850 UB	7,710	6,850
Manganese	300 ST	7439-96-5	ug/l	**5,070**	**1,730**	**2,450**	**1,170**	**803**	**1,750**	**3,520**	**2,690**
Mercury	0.7 ST	7439-97-6	ug/l	0.16 BNU*	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	1.7 B	1.1 B	20 U	20 U	5 U	3 U	5 U	4.0 J
Potassium	-	7440-09-7	ug/l	10,600	9,200	26,200	21,200	12,300	17,100 J	14,100	14,000
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.8 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 UN	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	19,300	10,400	14,100	8,190	5,170 UB	10,000 UBJ	**39,000**	**29,600**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	3.2 U	15 U	15 U	10 U	7 U	10 U	**5.1 J**
Vanadium	-	7440-62-2	ug/l	.98 B	.23 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	7.1 B	13 B	11.1 UB	20 U	97.4 J	15.8 UB	14.4 UB	34.5
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	40.3 UBJ	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**17,670**	**6,060**	**8,560**	**4,350**	**3,263**	**9,890**	**15,220**	**17,890**

NOTES:

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Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/21/2021 (ug/l)	MW-05I 9/7/2022 (ug/l)	MW-05I 12/1/2023 (ug/l)	MW-05I 1/23/2025 (ug/l)	MW-05I (ug/l)	MW-05I (ug/l)	MW-05I (ug/l)	MW-05I (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	1410	1470				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	9.4 UB	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	29.9 J	32	57.8	47 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	45 J	58.2	41.4	52.1				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	**9.8**	**9.7**				
Calcium	-	7440-70-2	ug/l	33,600	24,400	23,300 J	32,200				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 UJ	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	1.9 UB	2.9 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	5.7 J	9.9 J				
Iron	300 ST	7439-89-6	ug/l	**8,540**	**19,700**	**3,350 J**	**6,180 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	8.8	12.3				
Magnesium	35,000 GV	7439-95-4	ug/l	2,910	3,030	3,170 J	4080				
Manganese	300 ST	7439-96-5	ug/l	**1,830**	**5,730**	**4,950 J**	**2640**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	5.4 J	19.2	11.1	14.8 J				
Potassium	-	7440-09-7	ug/l	7,810	6,150	8,320	9280				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	1.9 UBJ	10 U	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**24,900**	**25,200**	16,700 J	**34200**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	3.2 J	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	155	113				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 U	10 U				
Iron + Manganese	500 ST*	-	ug/l	**10,370**	**25,430**	**8,300**	**8820**				

NOTES:

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Concentration exceeds Standard/Guidance Value.

Appendix B-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 5/31/2011 (ug/l)	MW-05S 8/29/2012 (ug/l)	MW-05S 11/13/2013 (ug/l)	MW-05S 03/19/2015 (ug/l)	MW-05S 05/11/2016 (ug/l)	MW-05S 8/22/2017 (ug/l)	MW-05S 11/29/2018 (ug/l)	MW-05S 2/25/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	39.8 B	1050	19 J	19.6 J	5 U	7.77 UB	105	48.1
Antimony	3 GV	7440-36-0	ug/l	2.1 B	1.8 B	20 U	20 U	**6.16 J**	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.3 B	25 U	25 U	10 U	7.01 J	11.4 J	10 U
Barium	1,000 ST	7440-39-3	ug/l	283	272	268	275	268 UB	275 J	255	377
Beryllium	3 GV	7440-41-7	ug/l	0.26 B	.3 B	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	197	163 B	144	20 U	115	207	162	214
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.9 B	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	79,500	78,600	69,500	75,600	73,300 J	74,100	75,600	106,000
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.2 U	10 U	10.0 U	2.5 U	2.50 U	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	2.1 B	11.5	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	1.0 B	1.5 B	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	0.55 U	11.1 B	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	**29,200**	**35,900**	**24,800**	**25,300**	**23,400**	**26,200**	**23,800**	**34,000**
Lead	25 ST	7439-92-1	ug/l	9.5	11.7	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	10,600	8,880	8,360	8,950	9,500 J	9,940 UB	10,000	13,400
Manganese	300 ST	7439-96-5	ug/l	**4,280**	**5,260**	**4,770**	**5,460**	**5,630**	**5,760**	**5,170**	**4,660**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 UN	0.1 U	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	4.6 B	5.6 B	20 U	20 U	5 U	3.53 UB	5 U	9.1 J
Potassium	-	7440-09-7	ug/l	15,400	12,900	12,900	14,500	13,300	13,000 J	11,200	15,000
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.1 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 UN	.29 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	**30,600**	**27,900**	10,400	11,800	12,900 UB	10,700 UBJ	**25,900**	**33,700**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	2.9 U	15 U	15 U	10 U	7 U	**8.8 J**	**5.0 J**
Vanadium	-	7440-62-2	ug/l	2.7 B	8.6 B	20 U	20 U	5 U	3 U	5.1 J	5 U
Zinc	2,000 ST	7440-66-6	ug/l	13..9 B	82.5	13.3 UB	5.51 J	118 J	17.8 UB	18.6 UB	54.6
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	47.2 UBJ	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**29,209.5**	**35,911.7**	**29,570**	**30,760**	**29,030**	**31,960**	**28,970**	**38,660**

NOTES:

U: Analyzed for but not detected, value shown is instrument detection limit.
U* or UB: Result qualified as non-detect based on validation criteria
J: Estimated due to data validation criteria.
J*: Value is an approximate concentration of the analyte as determined by data validation.
UJ: Value was not detected above quantitation limit but was an appoximate.
B: Concentration is above instrument detection limit but below contract required detection limit.
N: Matrix spike sampe recovery not within control limits.

ST: Standard.
GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/21/2021 (ug/l)	MW-05S 9/7/2022 (ug/l)	MW-05S 12/1/2023 (ug/l)	MW-05S 1/23/2025 (ug/l)	MW-05S (ug/l)	MW-05S (ug/l)	MW-05S (ug/l)	MW-05S (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	437	722				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 U	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	272	289	219	357				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	165	185	120	174				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	2.5 U	2.5 U				
Calcium	-	7440-70-2	ug/l	87,100	90,000	74,400 J	109,000				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 UJ	20 UJ				
Chromium Total	50 ST	7440-47-3	ug/l	1.8 J	10 U	3.3 UB	4.9 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	5.3 J	25 U	4.4 J	15.4 J				
Iron	300 ST	7439-89-6	ug/l	**31,400**	**30,500**	**25,600 J**	**37,500 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	10,300	10,800	8,860 J	12500				
Manganese	300 ST	7439-96-5	ug/l	**3,650**	**3,420**	**3,110 J**	**3540**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	15.7 J	32.1	17.7	27.8 J				
Potassium	-	7440-09-7	ug/l	12,600	12,400	11,200	15000				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	1.3 UBJ	10 U	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**37,400**	**41,600**	**35,900 J**	**47800**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	9.2 J	21.4 J				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	52.1	41.8				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 U	10 U				
Iron + Manganese	500 ST*	-	ug/l	**35,050**	**33,920**	**28,710**	**41040**				

NOTES:

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J: Estimated due to data validation criteria.
J*: Value is an approximate concentration of the analyte as determined by data validation.
UJ: Value was not detected above quantitation limit but was an appoximate.
B: Concentration is above instrument detection limit but below contract required detection limit.
N: Matrix spike sampe recovery not within control limits.

ST: Standard.
GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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-06D 5/26/2011 (ug/l)	MW-06D 8/27/2012 (ug/l)	MW-06D 11/12/2013 (ug/l)	MW-06D 03/18/2015 (ug/l)	MW-06D 05/10/2016 (ug/l)	MW-06D 8/22/2017 (ug/l)	MW-06D 11/29/2018 (ug/l)	MW-06D 2/24/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	8.2 U	36.7 B	20 U	20 U	26.1 UB	18.5 UB	22 UB	24.4
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	31.6 B	1.3 U	54.1	49.9	56.4 UB	94.5 J	113	113
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	105	120	54	20 U	35.1 UB	28.2	43.1 UB	33.3
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	5,960	7,260	6,130	5,360	6,730	10,500 UB	12,800	14,800
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	.02 U	10 U	10.0 U	2.5 U	2.50 UJ	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	1.8 B	7	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	10.7 B	2 B	20 U	20 U	5 U	5.17 J	5.1 J	8.3 J
Copper	200 ST	7440-50-8	ug/l	1.6 B	.7 U	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	159	**1,060**	122	10.3 UB	31.1 UB	24.1 UB	43 UB	20.9
Lead	25 ST	7439-92-1	ug/l	1.6 B	8.6	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	3,580 B	3610 B	3,370	2,870	3,140	5,170 UB	6,460	7,930
Manganese	300 ST	7439-96-5	ug/l	**3,370**	**761**	**3,190**	**2,220**	**1,550**	**1,300**	**1,230**	**1,360**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	.1 U	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	4.8 B	1.9 B	8.11 J	6.67 J	6.57 J	8.94 UB	10 J	15 J
Potassium	-	7440-09-7	ug/l	2,000 B	1560 B	2,060	2,020 J	1,910 UB	2,750 UBJ	3,140	2,820
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.1 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	18,500	17,800	3,260	4,460	4,070 UB	4,090 UBJ	16,800	**21,600**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	3.2 U	15 U	15 U	10 U	7 U	10 U	10 U
Vanadium	-	7440-62-2	ug/l	.56 U	.23 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	7.4 B	103	15.8 UB	20 U	10.4 UB	23.4 UB	22.6 UB	24.5
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	42.1 UB	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**3,529**	**1,821**	**3,312**	**2,220**	**1,550**	**1,300**	**1,230**	**1,381**

NOTES:

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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-06D 5/21/2021 (ug/l)	MW-06D 8/31/2022 (ug/l)	MW-06D 11/29/2023 (ug/l)	MW-06D 1/22/2025 (ug/l)	MW-06D (ug/l)	MW-06D (ug/l)	MW-06D (ug/l)	MW-06D (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	100 U	200 U				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 U	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	56.2 J	76.8	26.3 J	37.3 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	28.5 J	33.7 UB	27.2 UB	25 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	2.5 U	2.5 U				
Calcium	-	7440-70-2	ug/l	8,300	12,100	8,970	9,720				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 UJ	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	1.3 J	10 U	1.5 UB	10 U				
Cobalt	-	7440-48-4	ug/l	4.3 J	5.6 J	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	25 U	25 U				
Iron	300 ST	7439-89-6	ug/l	20 U	25.9	**547**	**485 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	4,720	6,590	5,480	5830				
Manganese	300 ST	7439-96-5	ug/l	**799**	**979**	**1,130**	**1830**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	16.7 J	25.9	11.0 J	16.3 J				
Potassium	-	7440-09-7	ug/l	2,060 J	2,880 UB	2,300 J	2440 J				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	2.3 UBJ	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	13,700	15,500	13000	14000				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	20 U	7 J				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 UJ	10 U				
Iron + Manganese	500 ST*	-	ug/l	**799**	**1,005**	**1,677**	**2315**				

NOTES:

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GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/26/2011 (ug/l)	MW-06I 8/27/2012 (ug/l)	MW-06I 11/12/2013 (ug/l)	MW-06I 03/18/2015 (ug/l)	MW-06I 05/10/2016 (ug/l)	MW-06I 8/22/2017 (ug/l)	MW-06I 11/30/2018 (ug/l)	MW-06I 2/24/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	8.2 U	97.4 B	5.36 J	20 U	9.19 UB	5.77 UB	25 UB	29.2
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	7.7 J	10 U
Barium	1,000 ST	7440-39-3	ug/l	53.0 B	46.8 B	58.3	138	127 UB	111 J	133	78.7
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	32.3 B	56.1 B	58	20 U	36 UB	27.8	54 UB	51.1
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	23,900	19,700	13,500	16,000	17,700	21,500 UB	39,000	36,400
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.2 U	10 U	10.0 U	2.5 U	2.50 UJ	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	1.0 B	8.5	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	.49 U	2.8 B	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	1.9 B	22.7 B	20 U	20 U	5 U	3 U	3.5 UB	5 U
Iron	300 ST	7439-89-6	ug/l	90.1 B	**3,940**	7.46 UB	9.48 UB	29.1 UB	21.1 UB	17.4 UB	20.1
Lead	25 ST	7439-92-1	ug/l	1.5 U	6	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	4,030 B	1,900 B	1,450	1,630	2,210	3,060 UB	5,790	5,360
Manganese	300 ST	7439-96-5	ug/l	**530**	**643**	**556**	**802**	**731**	**848**	**897**	**731**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	1.2 U	2.8 B	20 U	20 U	5.79 J	3 U	5 U	5 U
Potassium	-	7440-09-7	ug/l	3,610 B	4,920 B	8,220	16,700 J	13,900	7,670 J	7,050	5,200
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.8 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	**29,700**	19,200	4,110	14,500	15,000 UB	8,710 UBJ	**43,400**	**20,200**
Thallium	0.5 GV	7440-28-0	ug/l	**3.7 B**	3.2 U	15 U	15 U	10 U	7 U	9.6 J	10 U
Vanadium	-	7440-62-2	ug/l	.56 U	.4 B	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	13.3 B	95.4	10.7 UB	20 U	16.8 UB	18.9 UB	11.6 UB	28.5
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	46.3 UB	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**620.1**	**4,583**	**563.5**	**802**	**731**	**848**	**897**	**751**

NOTES:

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ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/21/2021 (ug/l)	MW-06I 8/31/2022 (ug/l)	MW-06I 11/29/2023 (ug/l)	MW-06I 1/22/2025 (ug/l)	MW-06I (ug/l)	MW-06I (ug/l)	MW-06I (ug/l)	MW-06I (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	42 UB	200 U				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 U	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	76 J	70.5	42.3 J	56.1 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	37.8 J	47.8 UB	37.7 J	31.1 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	2.5 U	2.5 U				
Calcium	-	7440-70-2	ug/l	36,600	30,700	30,100	27,400				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 U	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	2.7 UB	10 U				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	10.6 J	5.7 J				
Iron	300 ST	7439-89-6	ug/l	20 U	100 U	**1,250**	**409 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	3,930	2,810	3,680	2240				
Manganese	300 ST	7439-96-5	ug/l	**573**	**421**	**617**	278				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	40 U	7.4 J	40 U	40 U				
Potassium	-	7440-09-7	ug/l	6,590	6,650	5,370	4470 J				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	2.5 UBJ	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**32,800**	**29,500**	**20,900**	**35300**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	20 U	9.7 J				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	9.1 J	10 U				
Iron + Manganese	500 ST*	-	ug/l	**573**	421	**1,867**	**687**				

NOTES:

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

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

J: Estimated due to data validation criteria.

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

UJ: Value was not detected above quantitation limit but was an appoximate.

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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-06S 5/26/2011 (ug/l)	MW-06S 8/27/2012 (ug/l)	MW-06S 11/13/2013 (ug/l)	MW-06S 03/18/2015 (ug/l)	MW-06S 05/10/2016 (ug/l)	MW-06S 8/22/2017 (ug/l)	MW-06S 11/30/2018 (ug/l)	MW-06S 2/24/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	8.2 U	32.4 B	11.6 J	8 J	31.8 UB	4.8 UB	26.4 UB	37.8
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	372	418	220	206	265	281 J	184	359
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	244	245	161	20 U	134	181	78.9	290
Cadmium	5 ST	7440-43-9	ug/l	0.38 B	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	74,800	115,000	64,000	33,800	59,500	49,100	38,900	80,300
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.2 U	10 U	10.0 U	2.5 U	2.50 UJ	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	3.0 B	15.5	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	0.62 B	.52 U	20 U	20 U	5 U	4 U	5 U	3 J
Copper	200 ST	7440-50-8	ug/l	0.55 U	.7 U	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	**36,400**	**82,300**	**46,400**	**17,300**	**41,100**	**32,800**	**21,000**	**55,300**
Lead	25 ST	7439-92-1	ug/l	8.7	9.3	5.63 J	15 U	5 U	4.4 J	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	9,920	9,710	5,020	2,820	4,940	4,130 UB	3,500	9,230
Manganese	300 ST	7439-96-5	ug/l	**494**	**664**	**500**	**341**	**928**	**1,280**	**1,030**	**588**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	1.2 U	.64 U	5.5 J	20 U	5 U	3.08 UB	5 U	12.6 J
Potassium	-	7440-09-7	ug/l	11,900	14,200	8,360	16500 J	11,200	11,900 J	6,450	7,990
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.8 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	**21,700**	**39,000**	7,990	11,100	11,600 UB	11,300 UBJ	**30,300**	**30,700**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	**3.6 B**	15 U	15 U	10 U	7 U	10 U	10 U
Vanadium	-	7440-62-2	ug/l	2.7 B	2.1 B	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	17.7 B	11.3 B	17 UB	20 U	18.2 UB	15.4 UB	15.3 UB	35.5
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	39.7 UBJ	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**73,294**	**165,264**	**46,900**	**17,641**	**42,028**	**34,080**	**22,030**	**55,888**

NOTES:

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

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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-06S 5/21/2021 (ug/l)	MW-06S 8/31/2022 (ug/l)	MW-06S 11/29/2023 (ug/l)	MW-06S 1/22/2025 (ug/l)	MW-06S (ug/l)	MW-06S (ug/l)	MW-06S (ug/l)	MW-06S (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	74.4 UB	430				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	6.2 J	11.5 UB	9.9 J	11.3				
Barium	1,000 ST	7440-39-3	ug/l	220	313	141	403				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	135	180	44.4 J	238				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	2.5 U	2.5 U				
Calcium	-	7440-70-2	ug/l	56,200	79,000	31,300	85,200				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 UJ	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	4.4 UB	8.7 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	8.1 J	25 U	10.5 J	35.7				
Iron	300 ST	7439-89-6	ug/l	**45,400**	**60,800**	**30,300**	**74,300 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5 U	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	4,850	6,710	2,360	7240				
Manganese	300 ST	7439-96-5	ug/l	290	**361**	210	**484**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	11.6 J	25.6	13.3 J	19.4 J				
Potassium	-	7440-09-7	ug/l	5,660	7,100	4760 J	8570				
Selenium	10 ST	7782-49-2	ug/l	10 U	7.8	9.7 J	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	2.8 UBJ	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**26,000**	**31,900**	**36,300**	**28,800**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	4.1 J	19.2 J				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	14.5 J	15.8 J				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 UJ	10 U				
Iron + Manganese	500 ST*	-	ug/l	**45,690**	**61,161**	**30,510**	**74784**				

NOTES:

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N: Matrix spike sampe recovery not within control limits.

ST: Standard.
GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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 5/26/2011 (ug/l)	MW-07I 8/27/2012 (ug/l)	MW-07I 11/12/2013 (ug/l)	MW-07I 03/18/2015 (ug/l)	MW-07I 05/10/2016 (ug/l)	MW-07I 8/22/2017 (ug/l)	MW-07I 11/29/2018 (ug/l)	MW-07I 2/24/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	8.2 U	46.7 B	5.13 J	6.44 J	35.4 UB	38.8 UB	20.5 UB	21.3
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.1 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	4.4 U	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	46.3 B	23.7 B	37.5	67.7	76.8 UB	61.6 J	60.9	88.9
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	51.0 B	45.7 B	37	20 U	25 UB	28.2	51.7 UB	40.4
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	.18 U	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	38,000	21,900	12,700	14,200	11,700	16,200 UB	23,500	21,100
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.2 U	10 U	10.0 U	2.5 U	2.50 UJ	2.5 U	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	1.6 B	8.0 B	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	.49 U	.52 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	1.9 B	.7 U	20 U	20 U	5 U	3 U	3.7 UB	5 U
Iron	300 ST	7439-89-6	ug/l	31.8 B	20.1 B	13.5 UB	8.62 UB	28.5 UB	25.1 UB	18.5 UB	12.4 J
Lead	25 ST	7439-92-1	ug/l	1.5 U	3.6	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	6,020	1980 B	1,650	1,850	1,700 UB	2,350 UB	3,180	2,820
Manganese	300 ST	7439-96-5	ug/l	**971**	**506**	**1,600**	**2,320**	**1,490**	**1,130**	**872**	204
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	0.1	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	1.2 U*J*	.8 B	20 U	20 U	5 U	3.6 UB	5 U	3.7 J
Potassium	-	7440-09-7	ug/l	3440 B	2850 B	1,790	2420 J	3,700 UB	3,160 UBJ	2,870	3,450
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.8 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	.32 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	**22,900**	442	5,870	12,700	12,900 UB	5,050 UBJ	19,600	**55,500**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	3.2 U	15 U	15 U	10 U	7 U	10 U	10 U
Vanadium	-	7440-62-2	ug/l	.56 U	.23 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	8.1 B	57.7	10.8 UB	20 U	11.8 UB	19.2 UB	18.1 UB	30.9
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	44.3 UB	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**971**	**506**	**1,613.5**	**2,320**	**1,490**	**1,130**	**872**	216

NOTES:

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

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

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

N: Matrix spike sampe recovery not within control limits.

ST: Standard.

GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/20/2021 (ug/l)	MW-07I 8/31/2022 (ug/l)	MW-07I 11/28/2023 (ug/l)	MW-07I 1/22/2025 (ug/l)	MW-07I (ug/l)	MW-07I (ug/l)	MW-07I (ug/l)	MW-07I (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	369	137 J				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 U	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	42.9 J	194	182 J	101 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	24.7 J	49	33.7 UB	36.1 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 U	2.5 U	2.5 U				
Calcium	-	7440-70-2	ug/l	13,600	58,400	16,600	18,800				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	20 U	20 U	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	1.2 J	10 U	**130**	45.1				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	10.8 J	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 U	10.7 J	4.9 J				
Iron	300 ST	7439-89-6	ug/l	20 U	100 U	**1,840**	**599 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5.1	5 U				
Magnesium	35,000 GV	7439-95-4	ug/l	1,620	3,930	2,080	2,150				
Manganese	300 ST	7439-96-5	ug/l	151	72.4	**3,570**	**1,320**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 U	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	5.1 J	5.2 J	**174**	69.2				
Potassium	-	7440-09-7	ug/l	4,190	17,200	14,100	17,800				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	10 U	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**37,000**	**122,000**	**43,100**	**39,300**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 U	15.9 J	11.4 J				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 UJ	10 U				
Iron + Manganese	500 ST*	-	ug/l	151	72.4	**5,410**	**1,919**				

NOTES:

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Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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 5/27/2011 (ug/l)	MW-12D 8/29/2012 (ug/l)	MW-12D 11/14/2013 (ug/l)	MW-12D 03/20/2015 (ug/l)	MW-12D 05/12/2016 (ug/l)	MW-12D 8/23/2017 (ug/l)	MW-12D 12/3/2018 (ug/l)	MW-12D 2/26/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	290	70.9 B	20 U	9.22 J	15.2 UB	11.5 UB	28.8 UB	23.0
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.8 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	1.5 U	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	8.0 B	4.3 B	7.67 J	9.53 J	14.2 UB	19 UB	32.5	21.5
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	0.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	9.0 B	11 B	13	20 U	16.2 UB	12.3 J	49.1 UB	30.2
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	0.1 B	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	6,990	5,030	4,950	4,710	7,880	10,400 UB	14,100	8,990
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.2 U	10 U	10.0 U	2.5 U	2.50 U	2.5 UJ	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	2.4 B	1.1 B	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	0.49 U	.28 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	4.1 B	1.2 B	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	**541**	83.8 B	11.2 UB	10.5 UB	41 UB	83.6	13.3 UB	16.5 J
Lead	25 ST	7439-92-1	ug/l	2.8 B	7.9	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	3,520 B	2,400 B	2,540	2,430	3,680	4,720 UB	6,370	3,990
Manganese	300 ST	7439-96-5	ug/l	14.8 B	23.5	20 U	21.2	5 U	16.3 J	5.2 J	4.0 J
Mercury	0.7 ST	7439-97-6	ug/l	0.10U U*J*	0.10 U	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	1.2 U	1.1 B	20 U	20 U	5 U	6.8 UB	5 U	5 U
Potassium	-	7440-09-7	ug/l	1,590 B	65.3 U	659	746	855 UB	1,080 UBJ	2,150	1,610
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.1 U	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	0.29 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	12,000	8,580	2,810	2,780	2,740 UB	2,660 UBJ	**24,500**	16,500
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	2.9 U	15 U	15 U	10 U	8.99 J	10 U	**8.3 J**
Vanadium	-	7440-62-2	ug/l	1.1 B	0.20 B	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	25.1	12.9 B	10.8 UB	20 U	19.8 UBJ	50.9 UB	8.2 UB	16.8 J
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	36.3 UB	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**555.8**	107.3	11.2	21.2	0	99.9	5.2	20.5

NOTES:

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NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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 5/24/2021 (ug/l)	MW-12D 9/8/2022 (ug/l)	MW-12D 11/30/2023 (ug/l)	MW-12D 1/23/2025 (ug/l)	MW-12D (ug/l)	MW-12D (ug/l)	MW-12D (ug/l)	MW-12D (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	330	518				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 UJ	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	200 U	14.4 J	200 U	200 U				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	31.4 J	32.1	27.9 UB	32.2 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 UJ	0.68 J	**5.8**				
Calcium	-	7440-70-2	ug/l	9,180	16,700	7,820	16,900				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 UJ	20 U	20 UJ	20 UJ				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	10 U	2.2 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 UJ	3.9 UB	5.2 J				
Iron	300 ST	7439-89-6	ug/l	20 U	100 U	**419**	**658 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	4.3 J	4.1 J				
Magnesium	35,000 GV	7439-95-4	ug/l	4,250	7,200 J	2,780	3,120				
Manganese	300 ST	7439-96-5	ug/l	3.2 J	23.5	44.1	63				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.16 UB	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	11.3 J	13.7	10.3 J	13.5 J				
Potassium	-	7440-09-7	ug/l	1,620 J	2,820	1,920 J	4890 J				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	2.1 UBJ	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	19,500	**29,100 J**	16,100	15,300				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	50 U	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 UJ	12.6 J	59.2				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 U	10 U				
Iron + Manganese	500 ST*	-	ug/l	3.2 J	23.5	463	**721**				

NOTES:

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UJ: Value was not detected above quantitation limit but was an appoximate.
B: Concentration is above instrument detection limit but below contract required detection limit.
N: Matrix spike sampe recovery not within control limits.

ST: Standard.
GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

Appendix B-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-12I 5/27/2011 (ug/l)	MW-12I 8/29/2012 (ug/l)	MW-12I 11/14/2013 (ug/l)	MW-12I 03/20/2015 (ug/l)	MW-12I 05/12/2016 (ug/l)	MW-12I 8/23/2017 (ug/l)	MW-12I 12/3/2018 (ug/l)	MW-12I 2/26/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	562	299	7.24 J	6.86 J	12.4 UB	5.65 UB	37.2	38.3
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.8 U	20 U	20 U	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	1.5 U	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	18.8 B	22.1 B	37.3	56.8	21.1 UB	58.8	38.7	59.2
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	13.0 B	18.3 B	19	20 U	23.9 UB	67.8	73.6	86.4
Cadmium	5 ST	7440-43-9	ug/l	2.5 B	4.2 B	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	6,930	9,490	20,100	34,700	13,900	30,300 UB	22,000	41,500
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.2 U	10 U	10.0 U	2.5 U	2.50 U	2.5 UJ	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	2.6 B	3.0 B	20 U	20 U	5 U	4 U	5 U	5 U
Cobalt	-	7440-48-4	ug/l	0.49 U	0.28 U	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	6.4 B	1.9 B	20 U	20 U	5 U	3 U	5 U	5 U
Iron	300 ST	7439-89-6	ug/l	**878**	**343**	23.5 UB	13.8 UB	24.6 UB	49.5 UB	15 UB	29.1
Lead	25 ST	7439-92-1	ug/l	5.0	5.5	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	1,210 B	1,470 B	4,510	4,790	1,570 UB	3,880 UB	3,730	7,200
Manganese	300 ST	7439-96-5	ug/l	**1,620**	**3,710**	**2,830**	**819**	**398**	**5,250**	**1,060**	**1,260**
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	0.10 U	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	1.2 U	1.4 B	20 U	20 U	5 U	3 U	5 U	5 U
Potassium	-	7440-09-7	ug/l	4050 B	6,670	2,910	4,160	1,730 UB	2,500 UB	2,090	2,600
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.5 BJ	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	0.60 B	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	8,910	**29,300**	6,140	7,740	3,130 UB	8,940 UBJ	**20,300**	**41,800**
Thallium	0.5 GV	7440-28-0	ug/l	**3.8 B**	2.9 U	15 U	15 U	10 U	7 U	10 U	10 U
Vanadium	-	7440-62-2	ug/l	2.3 B	0.18 U	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	53.4	27	14.7 UB	20 U	13.7 UBJ	25.4 UB	8.1 UB	17 J
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10	45.1 UB	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**2,498**	**4,053**	**2,853.5**	**819**	398	**5,250**	**1,060**	**1,289**

NOTES:

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UJ: Value was not detected above quantitation limit but was an appoximate.
B: Concentration is above instrument detection limit but below contract required detection limit.
N: Matrix spike sampe recovery not within control limits.

ST: Standard.
GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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-12I 5/24/2021 (ug/l)	MW-12I 9/8/2022 (ug/l)	MW-12I 11/30/2023 (ug/l)	MW-12I 1/23/2025 (ug/l)	MW-12I (ug/l)	MW-12I (ug/l)	MW-12I (ug/l)	MW-12I (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	840	842				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	60 U				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 UJ	6.2 J	10 U				
Barium	1,000 ST	7440-39-3	ug/l	13.9 J	44.1	38.9 J	36.9 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	37.1 J	37	41.4 J	35.9 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 UJ	4.8	**6.7**				
Calcium	-	7440-70-2	ug/l	19,700	33,200	29,400	30,600				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 UJ	20 U	20 UJ	20 UJ				
Chromium Total	50 ST	7440-47-3	ug/l	10 U	10 U	10 U	4 J				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	50 U	50 U				
Copper	200 ST	7440-50-8	ug/l	25 U	25 UJ	9.2 J	5.9 J				
Iron	300 ST	7439-89-6	ug/l	20 U	37.5	**1,190**	**962 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	6.9	5.3				
Magnesium	35,000 GV	7439-95-4	ug/l	2,390	5,080	2,840	2990				
Manganese	300 ST	7439-96-5	ug/l	**435**	**1,440**	288	232				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 UJ	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	40 U	4.7	11.2 J	16.4 J				
Potassium	-	7440-09-7	ug/l	2,830 J	6,120	7,860	8910				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	10 U				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	2.2 UBJ	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**22,400**	**30,800 J**	5960	11800				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	4.3 J	50 U				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 UJ	36.9	33.8				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 U	10 U				
Iron + Manganese	500 ST*	-	ug/l	435	**1,478**	**1,478**	**1194**				

NOTES:

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B: Concentration is above instrument detection limit but below contract required detection limit.
N: Matrix spike sampe recovery not within control limits.

ST: Standard.
GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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-12S 5/27/2011 (ug/l)	MW-12S 8/29/2012 (ug/l)	MW-12S 11/14/2013 (ug/l)	MW-12S 03/20/2015 (ug/l)	MW-12S 05/12/2016 (ug/l)	MW-12S 8/23/2017 (ug/l)	MW-12S 11/29/2018 (ug/l)	MW-12S 2/26/2020 (ug/l)
Aluminum	-	7429-90-5	ug/l	1480	64.3 B	13.1 J	56.5	9.89 UB	7.04 UB	35.8	35.4
Antimony	3 GV	7440-36-0	ug/l	2.1 U	1.8 U	**6.04 J**	**6.6 J**	5 U	9 U	5 U	10 U
Arsenic	25 ST	7440-38-2	ug/l	1.9 U	1.5 B	25 U	25 U	10 U	7 U	10 U	10 U
Barium	1,000 ST	7440-39-3	ug/l	52.0 B	19.6 B	55.1	163	62.7 UB	79.4	61	49.4
Beryllium	3 GV	7440-41-7	ug/l	0.13 U	0.12 U	20 U	20 U	5 U	3 U	5 U	5 U
Boron	1,000 ST	7440-42-8	ug/l	26.5 B	41.0 B	36	20 U	32 UB	46.9 J	63.1 UB	47.2
Cadmium	5 ST	7440-43-9	ug/l	0.27 U	0.10 B	10 U	10 U	5 U	3 U	5 U	5 U
Calcium	-	7440-70-2	ug/l	35,200	41,600	30,900	43,400	33,400	53,500	48,800	35,000
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 U	0.2 U	10 U	10.0 U	2.5 U	2.50 U	2.5 UJ	2.5 U
Chromium Total	50 ST	7440-47-3	ug/l	**1,350**	53.1	20 U	5.39 J	36.1	15.7 J	**62.1**	4.4 J
Cobalt	-	7440-48-4	ug/l	10.1 B	1.4 B	20 U	20 U	5 U	4 U	5 U	5 U
Copper	200 ST	7440-50-8	ug/l	35.6	4.3 B	20 U	5.15 J	6.12 J	3 U	6.3 UB	5 U
Iron	300 ST	7439-89-6	ug/l	**9,280**	**524**	40.3 UB	94	**450**	234	**920**	70.9
Lead	25 ST	7439-92-1	ug/l	9.7	5.9	15 U	15 U	5 U	4 U	5 U	5 U
Magnesium	35,000 GV	7439-95-4	ug/l	3,980 B	3540 B	2,400	3,430	3,030	4,390 UB	3,560	2,750
Manganese	300 ST	7439-96-5	ug/l	**552**	**596**	17.8 J	122	31.9	212	74.8	9.4 J
Mercury	0.7 ST	7439-97-6	ug/l	0.10 U*J*	0.10 U	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Nickel	100 ST	7440-02-0	ug/l	74.7	11.6 B	7.38 J	19 J	22.7	22.3 UB	81.7	13 J
Potassium	-	7440-09-7	ug/l	18,300	15,300	22,000	27,200	17,400	28,800	27,900	22,300
Selenium	10 ST	7782-49-2	ug/l	2.6 UNU*J*	2.4 BJ	25 U	25 U	10 U	10 U	10 U	10 U
Silver	50 ST	7440-22-4	ug/l	0.52 U*J*	0.29 U	20 U	20 U	5 U	3 U	5 U	5 U
Sodium	20,000 ST	7440-23-5	ug/l	**38,800**	**29,100**	12,500	**32,100**	14,700 UB	9,760 UBJ	**34,700**	**32,400**
Thallium	0.5 GV	7440-28-0	ug/l	2.7 U	2.9 U	15 U	15 U	10 U	7 U	10 U	**6.6 J**
Vanadium	-	7440-62-2	ug/l	16.9 B	0.80 B	20 U	20 U	5 U	3 U	5 U	5 U
Zinc	2,000 ST	7440-66-6	ug/l	42.9	37.6	12.7 UB	34	22 UBJ	29.7 UB	16 UB	29.5
Cyanide	200 ST	0057-12-5	ug/l	10.0 U	10.0 U	50.7 UB	10 U	5 U	5 U	5 U	5 U
Iron + Manganese	500 ST*	-	ug/l	**9,832**	**1,120**	58.1	216	481.9	446	**994.8**	80.3

NOTES:

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GV: Guidance value.

NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

Appendix B-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-12S 5/24/2021 (ug/l)	MW-12S 9/8/2022 (ug/l)	MW-12S 11/30/2023 (ug/l)	MW-12S 1/22/2025 (ug/l)	MW-12S (ug/l)	MW-12S (ug/l)	MW-12S (ug/l)	MW-12S (ug/l)
Aluminum	-	7429-90-5	ug/l	200 U	200 U	678	2830				
Antimony	3 GV	7440-36-0	ug/l	60 U	60 U	60 U	**34 J**				
Arsenic	25 ST	7440-38-2	ug/l	10 U	10 UJ	10 U	10 U				
Barium	1,000 ST	7440-39-3	ug/l	22.2 J	28.1	52.6 J	113 J				
Beryllium	3 GV	7440-41-7	ug/l	5 U	5 U	5 U	5 U				
Boron	1,000 ST	7440-42-8	ug/l	32.9 J	44.3	40.5 J	41 J				
Cadmium	5 ST	7440-43-9	ug/l	2.5 U	2.5 UJ	0.95 J	**8.5**				
Calcium	-	7440-70-2	ug/l	34,400	45,700	47,400	48100				
Chromium Hexavalent	50 ST	18540-29-9	ug/l	20 UJ	20 U	20 UJ	20 U				
Chromium Total	50 ST	7440-47-3	ug/l	3.7 J	1.7	**1,050**	**3820**				
Cobalt	-	7440-48-4	ug/l	50 U	50 U	19.9 J	39.6 J				
Copper	200 ST	7440-50-8	ug/l	25 U	25 UJ	20.6 J	79.8				
Iron	300 ST	7439-89-6	ug/l	20 U	100 U	**5,470**	**20,100 J**				
Lead	25 ST	7439-92-1	ug/l	5 U	5 U	5.3	10.5				
Magnesium	35,000 GV	7439-95-4	ug/l	2,140	2,740	3,880	3220				
Manganese	300 ST	7439-96-5	ug/l	24.3	15.3	**1,350**	**4200**				
Mercury	0.7 ST	7439-97-6	ug/l	0.20 U	0.20 UJ	0.20 U	0.20 U				
Nickel	100 ST	7440-02-0	ug/l	9.1 J	12.1	**159**	**395**				
Potassium	-	7440-09-7	ug/l	20,700	19,700	21,600	34200				
Selenium	10 ST	7782-49-2	ug/l	10 U	10 U	10 U	7.5 J				
Silver	50 ST	7440-22-4	ug/l	10 UJ	10 UJ	2.4 UBJ	10 U				
Sodium	20,000 ST	7440-23-5	ug/l	**28,400**	**38,300**	**32,100**	**38600**				
Thallium	0.5 GV	7440-28-0	ug/l	10 U	10 U	10 U	10 U				
Vanadium	-	7440-62-2	ug/l	50 U	50 U	10.4 J	45.9 J				
Zinc	2,000 ST	7440-66-6	ug/l	20 U	20 UJ	16.7 J	97.5				
Cyanide	200 ST	0057-12-5	ug/l	10 U	10 U	10 U	10 U				
Iron + Manganese	500 ST*	-	ug/l	24.3	15.3	**6,820**	**24300**				

NOTES:

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GV: Guidance value.
NA: Not analyzed.

Concentration exceeds Standard/Guidance Value.

D&B ENGINEERS AND ARCHITECTS

APPENDIX B-3

MONITORING WELL SAMPLE RESULTS – VOLATILE ORGANIC PARAMETERS

APPENDIX B-3
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 8/28/2012 (ug/l)	MW-01D 11/12/2013 (ug/l)	MW-01D 3/17/2015 (ug/l)	MW-01D 05/10/2016 (ug/l)	MW-01D 8/21/2017 (ug/l)	MW-01D 11/29/2018 (ug/l)	MW-01D 2/24/2020 (ug/l)	MW-01D 5/20/2021 (ug/l)	MW-01D 8/30/2022 (ug/l)	MW-01D 11/28/2023 (ug/l)	MW-01D 1/21/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	0.53 J	0.72 J	0.76 J	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	3 J	0.65 J	1.0 J	1.1 J	1.0 J	0.25 U	0.50 U	1.0 U	1.4	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	1 J	2.0 U	2.0 U	0.55 J	0.66 J	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	0.90 J	1.8 J	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	2.7 UB	2.7 UB	3.9 UB	1.0 U	9.6 UB	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	1.3 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.34 J	0.33 J	1.0 J	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	0.52 J	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5.5 UB	9.7 UB	6.6 UB	1.0 U	1.0 U	2.8 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	NA	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		4 J	0.65	2.95	4.17	2.76	0.33	1	0	1.4	0	0	-

See Last page for Qualifiers and Notes

APPENDIX B-3
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 8/28/2012 (ug/l)	MW-01I 11/12/2013 (ug/l)	MW-01I 3/17/2015 (ug/l)	MW-01I 05/10/2016 (ug/l)	MW-01I 8/21/2017 (ug/l)	MW-01I 11/29/2018 (ug/l)	MW-01I 2/24/2020 (ug/l)	MW-01I 5/20/2021 (ug/l)	MW-01I 8/30/2022 (ug/l)	MW-01I 11/28/2023 (ug/l)	MW-01I 1/21/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	1 J	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	2.5 UB	4.1 UB	2.7 UB	1.0 U	10 UB	5.0 U	2.7 UB	5.0 U	5.0 UJ	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	1.3 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	2 J	2.0 U	0.53 J	0.53 J	0.25 U	0.47 J	0.90 J	1.2	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5.0 UB	9.6 UB	7.7 UB	1.0 U	1.0 U	2.7 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 UJ	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	NA	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		3 J	0	0.53	0.53	0	0.47	0.9	1.2	0	0	0	-

See Last page for Qualifiers and Notes

APPENDIX B-3
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 8/28/2012 (ug/l)	MW-01S 11/12/2013 (ug/l)	MW-01S 3/17/2015 (ug/l)	MW-01S 05/10/2016 (ug/l)	MW-01S 8/21/2017 (ug/l)	MW-01S 11/29/2018 (ug/l)	MW-01S 2/24/2020 (ug/l)	MW-01S 5/20/2021 (ug/l)	MW-01S 8/30/2022 (ug/l)	MW-01S 11/28/2023 (ug/l)	MW-01S 1/21/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	2.2 UB	2.7 UB	1.5 UB	1.0 U	12 UB	5.0 U	2.5 UB	5.0 U	5.0 UB	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	1.2 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5.7 UB	9.4 UB	6.9 UB	1.0 U	1.0 U	2.5 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	NA	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 U	0	0	0	0	0	0	0	0	0	0	-

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APPENDIX B-3
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 8/28/2012 (ug/l)	MW-02D 11/12/2013 ug/l)	MW-02D 3/17/2015 ug/l)	MW-02D 05/10/2016 (ug/l)	MW-02D 8/21/2017 (ug/l)	MW-02D 11/29/2018 (ug/l)	MW-02D 2/24/2020 (ug/l)	MW-02D 5/20/2021 (ug/l)	MW-02D 8/31/2022 (ug/l)	MW-02D 11/28/2023 (ug/l)	MW-02D 1/21/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 UJ	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.7	1.6	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 UJ	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	2.2 UB	5.0 UB	3.6 UB	1.0 U	9.9 UB	5.0 U	2.0 UB	5.0 U	5.0 UJ	50 GV
Acrylonitrile	000107-13-1	5 UJ	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	1.1 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	0.50 J	2.0 U	0.50 U	0.25 J	0.25 U	0.59 J	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	3.9 UB	9.9 UB	7.1 UB	1.1 UB	1.0 U	2.8 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 UJ	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 UJ	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 UJ	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	NA	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 U	0.5	0	0	0.25	0	0.59	1.7	1.6	0	0	-

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APPENDIX B-3
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 8/28/2012 (ug/l)	MW-02I 11/12/2013 (ug/l)	MW-02I 3/17/2015 (ug/l)	MW-02I 05/10/2016 (ug/l)	MW-02I 8/21/2017 (ug/l)	MW-02I 11/29/2018 (ug/l)	MW-02I 2/24/2020 (ug/l)	MW-02I 5/20/2021 (ug/l)	MW-02I 8/31/2022 (ug/l)	MW-02I 11/28/2023 (ug/l)	MW-02I 1/21/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	2.7 UB	2.2 UB	2.6 UB	1.0 U	11 UB	5.0 U	3.6 UB	5.0 U	5.0 UJ	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	1.3 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.4	1.8	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	6.0 UB	8.7 UB	8.5 UB	2.5 UB	1.0 U	2.7 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 UJ	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	NA	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 U	0	0	0	0	0	0	0	0	1.4	1.8	-

See Last page for Qualifiers and Notes

APPENDIX B-3
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 8/28/2012 (ug/l)	MW-03S 11/13/2013 (ug/l)	MW-03S 3/18/2015 (ug/l)	MW-03S 05/11/2016 (ug/l)	MW-03S 8/23/2017 (ug/l)	MW-03S 11/29/2018 (ug/l)	MW-03S 2/25/2020 (ug/l)	MW-03S 5/24/2021 (ug/l)	MW-3S 9/7/2022 (ug/l)	MW-3S 12/1/2023 (ug/l)	MW-3S 1/23/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 UJ	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	0.56 J	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	0.70 J	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 UJ	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	4.4 UB	2.4 UB	4.0 UB	1.0 U	13 UB	5.0 U	5.0 UJ	5.0 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 UJ	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.75 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.9 UB	8.2 UB	8.4 UB	1.0 U	1.0 U	4.3 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 UJ	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 UJ	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	1.5 U	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 U	1.26	0	0	0	0	0	0	0	0	0	-

See Last page for Qualifiers and Notes

APPENDIX B-3
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 8/27/2012 (ug/l)	MW-04D 11/13/2013 (ug/l)	MW-04D 3/18/2015 (ug/l)	MW-04D 05/11/2016 (ug/l)	MW-04D 8/22/2017 (ug/l)	MW-04D 11/30/2018 (ug/l)	MW-04D 2/25/2020 (ug/l)	MW-04D 5/20/2021 (ug/l)	MW-04D 9/7/2022 (ug/l)	MW-04D 11/29/2023 (ug/l)	MW-04D 1/24/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	4.8 UB	3.2 UB	4.3 UB	1.0 U	16 UB	5.0 U	5.0 UB	5.0 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.74 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.7 UB	8.1 UB	8.1 UB	1.0 U	1.0 U	4.6 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	1.5 U	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 U	0	0	0	0	0	0	0	0	0	0	-

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APPENDIX B-3
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 8/27/2012 (ug/l)	MW-04I 11/13/2013 (ug/l)	MW-04I 3/18/2015 (ug/l)	MW-04I 05/11/2016 (ug/l)	MW-04I 8/22/2017 (ug/l)	MW-04I 11/30/2018 (ug/l)	MW-04I 2/25/2020 (ug/l)	MW-04I 5/20/2021 (ug/l)	MW-04I 9/7/2022 (ug/l)	MW-04I 11/29/2023 (ug/l)	MW-04I 1/24/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	3.4 UB	2.9 UB	4.9 UB	1.0 U	16 UB	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.86 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.27 J	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.2 UB	7.8 UB	8.3 UB	1.0 U	1.1 J	4.4 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	1.0 U	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	1.0 U	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	1.5 U	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 J	0	0	0	0.27	1.1	0	0	0	0	0	-

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APPENDIX B-3
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 8/27/2012 (ug/l)	MW-04S 11/13/2013 (ug/l)	MW-04S 3/18/2015 (ug/l)	MW-04S 05/11/2016 (ug/l)	MW-04S 8/22/2017 (ug/l)	MW-04S 11/30/2018 (ug/l)	MW-04S 2/25/2020 (ug/l)	MW-04S 5/21/2021 (ug/l)	MW-04S 9/7/2022 (ug/l)	MW-04S 11/28/2023 (ug/l)	MW-04S 1/24/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 J	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	4.1 UB	2.8 UB	6.3 UB	1.0 U	15 UB	5.0 U	5.0 U	5.0 U	5.0 UB	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	3 J	0.75 J	0.72 J	0.50 U	0.25 U	0.67 J	1.8 J	1.7	1.9 J	1.4	1.3	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.6 UB	7.9 UB	8.4 UB	6.2 UB	1.1 J	4.6 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	1.5 U	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		3 J	0.75	0.72	0	0	1.77	1.8	1.7	1.9	1.4	1.3	-

See Last page for Qualifiers and Notes

APPENDIX B-3
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 8/28/2012 (ug/l)	MW-05D 11/13/2013 (ug/l)	MW-05D 3/19/2015 (ug/l)	MW-05D 05/11/2016 (ug/l)	MW-05D 8/22/2017 (ug/l)	MW-05D 11/30/2018 (ug/l)	MW-05D 2/25/2020 (ug/l)	MW-05D 5/21/2021 (ug/l)	MW-05D 9/7/2022 (ug/l)	MW-05D 12/1/2023 (ug/l)	MW-05D 1/24/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.40 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.32 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	2.8 UB	3.8 UB	6.3 UB	1.0 U	14 UB	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.67 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50J	0.30 J	0.29 J	0.66 J	1.0 U	1.0 U	1.0 U	1	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.5	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.7 UB	8.3 UB	6.2 UB	8.7 UB	1.2 J	4.5 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	0.56 J	2.3	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	0.74 J	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	1.5 U	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 U	0	3.8	2.8	0.3	2.21	0.66	0	0	0	1	-

See Last page for Qualifiers and Notes

APPENDIX B-3
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 8/28/2012 (ug/l)	MW-05I 11/13/2013 (ug/l)	MW-05I 3/19/2015 (ug/l)	MW-05I 05/11/2016 (ug/l)	MW-05I 8/22/2017 (ug/l)	MW-05I 11/30/2018 (ug/l)	MW-05I 2/25/2020 (ug/l)	MW-05I 5/21/2021 (ug/l)	MW-05I 9/7/2022 (ug/l)	MW-05I 12/1/2023 (ug/l)	MW-05I 1/23/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	4.6 UB	2.4 UB	3.8 UB	1.0 U	17 UB	5.0 U	5.0 U	5.0 U	5.0 UB	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.63 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.7	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	1.4 J	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.1 UB	10 UB	5.4 UB	1.0 U	1.0 U	4.7 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	0.58 J	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	1.5 U	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 U	0	1.98	0	0	0	0	0	0	1.7	0	-

See Last page for Qualifiers and Notes

APPENDIX B-3
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 8/29/2012 (ug/l)	MW-05S 11/13/2013 (ug/l)	MW-05S 3/19/2015 (ug/l)	MW-05S 05/11/2016 (ug/l)	MW-05S 8/22/2017 (ug/l)	MW-05S 11/29/2018 (ug/l)	MW-05S 2/25/2020 (ug/l)	MW-05S 5/21/2021 (ug/l)	MW-05S 9/7/2022 (ug/l)	MW-05S 12/1/2023 (ug/l)	MW-05S 1/23/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	2.9 UB	3.5 UB	2.5 UB	1.0 U	13 UB	5.0 U	5.0 U	5.0 U	5.0 UB	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.75 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	2 J	2.0 U	0.61 J	0.50 U	0.25 U	0.25 U	2.6	3.1	1.5 J	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	4	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.4 UB	8.1 UB	8.8 UB	3.9 UB	1.0 U	4.3 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	1.5 U	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		2	0	0.61	0	0	0	2.6	3.1	1.5	0	0	-

See Last page for Qualifiers and Notes

APPENDIX B-3
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 8/27/2012 (ug/l)	MW-06D 11/12/2013 (ug/l)	MW-06D 3/18/2015 (ug/l)	MW-06D 05/10/2016 (ug/l)	MW-06D 8/22/2017 (ug/l)	MW-06D 11/29/2018 (ug/l)	MW-06D 2/24/2020 (ug/l)	MW-06D 5/21/2021 (ug/l)	MW-06D 8/31/2022 (ug/l)	MW-06D 11/29/2023 (ug/l)	MW-06D 1/22/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	14	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	3.7 UB	2.8 UB	4.3 UB	1.0 U	9.6 UB	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.4 UB	7.2 UB	7.1 UB	4.7 UB	1.0 U	2.8 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	0.54 J	2.0 U	0.50 U	0.27 J	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	NA	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 U	0.54	0	0	0.27	0	14	0	0	0	0	-

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APPENDIX B-3
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 8/27/2012 (ug/l)	MW-06I 11/12/2013 (ug/l)	MW-06I 3/18/2015 (ug/l)	MW-06I 05/10/2016 (ug/l)	MW-06I 8/22/2017 (ug/l)	MW-06I 11/30/2018 (ug/l)	MW-06I 2/24/2020 (ug/l)	MW-06I 5/21/2021 (ug/l)	MW-06I 8/31/2022 (ug/l)	MW-06I 11/29/2023 (ug/l)	MW-06I 1/22/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	3.3 UB	2.8 UB	5.1 UB	1.0 U	9.8 UB	5.0 U	3.0 UB	5.0 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	1.1 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	0.51 J	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	5.7 UB	7.7 UB	6.8 UB	3.8 UB	1.0 U	2.7 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.38 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	NA	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 U	0.51	0	0	0	0.38	0	0	0	0	0	-

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APPENDIX B-3
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 8/27/2012 (ug/l)	MW-06S 11/13/2013 (ug/l)	MW-06S 3/18/2015 (ug/l)	MW-06S 05/10/2016 (ug/l)	MW-06S 8/22/2017 (ug/l)	MW-06S 11/30/2018 (ug/l)	MW-06S 2/24/2020 (ug/l)	MW-06S 5/21/2021 (ug/l)	MW-06S 8/31/2022 (ug/l)	MW-06S 11/29/2023 (ug/l)	MW-06S 1/22/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.71 J	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	3 J	0.67 J	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.4	2.6	1.0 U	2.8	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	3.8 UB	3.0 UB	4.3 UB	1.0 U	11 UB	5.0 U	2.5 UB	5.0 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	1.2 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	3 J	0.90 J	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.7	4.6	1.0 U	4.6	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	18	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.5 UB	7.7 UB	7.8 UB	1.0 U	1.2 J	2.6 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	0.77 J	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	3.8	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	NA	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		6 J	1.57	22.57	0	0	1.2	0.71	3.1	7.2	0	7.4	-

See Last page for Qualifiers and Notes

APPENDIX B-3
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 8/27/2012 (ug/l)	MW-07I 11/12/2013 (ug/l)	MW-07I 3/18/2015 (ug/l)	MW-07I 05/10/2016 (ug/l)	MW-07I 8/22/2017 (ug/l)	MW-07I 11/29/2018 (ug/l)	MW-07I 2/24/2020 (ug/l)	MW-07I 5/20/2021 (ug/l)	MW-07I 8/31/2022 (ug/l)	MW-071 11/28/2023 (ug/l)	MW-07I 1/22/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.3	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.3 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	5.0 U	4.0 UB	2.5 UB	2.1 UB	1.0 U	9.3 UB	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	1.1 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.2 UB	7.5 UB	7.4 UB	3.4 UB	1.0 U	2.7 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	2 J	12	1.4 J	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	2.0	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	40	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	NA	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		2	12	1.4	0	0	0	0	0	2.0	0	0	-

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APPENDIX B-3
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 8/29/2012 (ug/l)	MW-12D 11/14/2013 (ug/l)	MW-12D 3/20/2015 (ug/l)	MW-12D 05/12/2016 (ug/l)	MW-12D 8/23/2017 (ug/l)	MW-12D 12/3/2018 (ug/l)	MW-12D 2/26/2020 (ug/l)	MW-12D 5/24/2021 (ug/l)	MW-12D 9/8/2022 (ug/l)	MW-12D 11/30/2023 (ug/l)	MW-12D 1/23/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	-
Acetone	000067-64-1	5 U	2.7 UB	2.2 UB	2.7 UB	1.0 U	1.0 U	18 UB	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.75 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.30 J	0.25 U	0.51 J	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.9 UB	10 UB	8.0 UB	7.2 UB	1.0 U	4.7 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	1.5 U	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		5 U	0	0	0	0.3	0	0.51	0	0	0	0	-

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APPENDIX B-3
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 8/29/2012 (ug/l)	MW-12I 11/14/2013 (ug/l)	MW-12I 3/20/2015 (ug/l)	MW-12I 05/12/2016 (ug/l)	MW-12I 8/23/2017 (ug/l)	MW-12I 12/3/2018 (ug/l)	MW-12I 2/26/2020 (ug/l)	MW-12I 5/24/2021 (ug/l)	MW-12I 9/8/2022 (ug/l)	MW-12I 11/30/2023 (ug/l)	MW-12I 1/23/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	-
Acetone	000067-64-1	2 JU	2.1 UB	3.1 UB	2.8 UB	1.0 U	1.0 U	16 UB	5.0 U	5.0 U	5.0 U	5.0 UB	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.70 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.7 UB	10 UB	8.2 UB	5.8 UB	1.0 U	5.0 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 UJ	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	1.5 U	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		2	0	0	0	0	0	0	0	0	0	0	-

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APPENDIX B-3
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 8/29/2012 (ug/l)	MW-12S 11/14/2013 (ug/l)	MW-12S 3/20/2015 (ug/l)	MW-12S 05/12/2016 (ug/l)	MW-12S 8/23/2017 (ug/l)	MW-12S 12/3/2018 (ug/l)	MW-12S 2/26/2020 (ug/l)	MW-12S 5/24/2021 (ug/l)	MW-12S 9/8/2022 (ug/l)	MW-12S 11/30/2023 (ug/l)	MW-12S 1/22/2025 (ug/l)	NYSDEC Class GA GROUNDWATER ST/GV
1,1,1,2-Tetrachloroethane	000630-20-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,1-Trichloroethane	000071-55-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2,2-Tetrachloroethane	000079-34-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1,2-Trichloroethane	000079-00-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethane	000075-34-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloroethene	000075-35-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
1,1-Dichloropropene	000563-58-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2,3-Trichloropropane	000096-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromo-3-chloropropane	000096-12-8	5 U	2.0 U	2.0 U	0.50 U	0.030 U	0.030 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.04 ST
1,2-Dibromoethane	000106-93-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0006 ST
1,2-Dichlorobenzene	000095-50-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
1,2-Dichloroethane	000107-06-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 ST
1,2-Dichloroethene (total)	000540-59-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 ST
1,2-Dichloropropane	000078-87-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
1,4-Dichlorobenzene	000106-46-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 ST
2-Butanone	000078-93-3	1 J	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	0.50 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
2-Hexanone	000591-78-6	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 GV
4-Methyl-2-pentanone	000108-10-1	5 U	5.0 U	5.0 U	1.0 U	0.50 U	0.50 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-
Acetone	000067-64-1	3 JU	2.2 UB	2.9 UB	3.1 UB	2.3 UB	1.0 U	17 UB	5.0 U	5.0 UJ	5.0 U	5.0 UB	50 GV
Acrylonitrile	000107-13-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Benzene	000071-43-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 ST
Bromochloromethane	000074-97-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Bromodichloromethane	000075-27-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromoform	000075-25-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Bromomethane	000074-83-9	5 U	2.0 U	4.0 U	1.0 U	0.25 U	0.25 U	0.63 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Carbon disulfide	000075-15-0	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	60 GV
Carbon tetrachloride	000056-23-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chlorobenzene	000108-90-7	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroethane	000075-00-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Chloroform	000067-66-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	7 ST
Chloromethane	000074-87-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,2-Dichloroethene	000156-59-2	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.72 J	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
cis-1,3-Dichloropropene	010061-01-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
Dibromochloromethane	000124-48-1	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 GV
Dibromomethane	000074-95-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Ethylbenzene	000100-41-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Iodomethane	000074-88-4	5 U	1.0 U	NA	0.50 U	0.50 U	0.50 U	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5 ST
Methylene chloride	000075-09-2	5 U	4.1 UB	9.6 UB	8.4 UB	5.5 UB	1.0 U	4.4 UB	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Styrene	000100-42-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Tetrachloroethene	000127-18-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.76 J	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Toluene	000108-88-3	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,2-Dichloroethene	000156-60-5	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
trans-1,3-Dichloropropene	010061-02-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 ST
trans-1,4-Dichloro-2-butene	000110-57-6	5 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichloroethene	000079-01-6	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Trichlorofluoromethane	000075-69-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 ST
Vinyl Acetate	000108-05-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	-
Vinyl chloride	000075-01-4	5 U	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 ST
m,p-Xylene	001330-20-7	NA	4.0 U	4.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
o-Xylene	000095-47-6	NA	2.0 U	2.0 U	0.50 U	0.25 U	0.25 U	0.50 U	1.0 U	1.0 U	NA	NA	5 ST
Xylene (total)	001330-20-7	5 U	NA	NA	1.5 U	1.0 U	1.0 U	1.5 U	3.0 U	3.0 U	3.0 U	3.0 U	5 ST
TOTAL VOCs		4	0	0	0	0	0	1.48	0	0	0	0	-

See Last page for Qualifiers and Notes

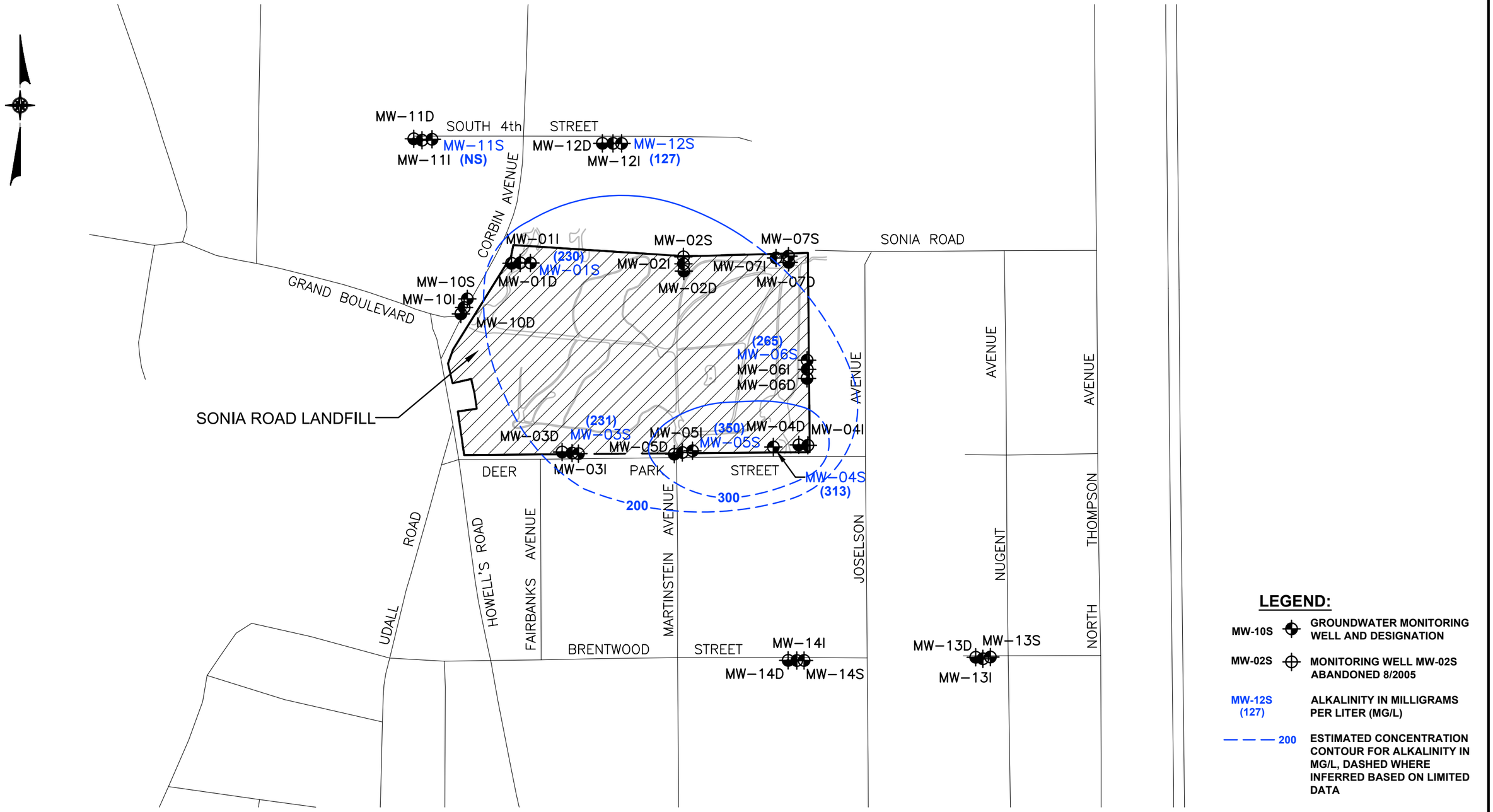
APPENDIX B-3
SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORIC AND CURRENT SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

QUALIFIERS	NOTES
B: Compound was found in the method blank as well as the sample	GV: Guidance Value
U: Compound was analyzed for but not detected at the detection limit shown.	ST: Standard
E: Concentration exceeds instrument calibration range; value estimated.	-: No standard or guildance value
D: Result taken from analysis at a secondary dilution.	NA: Not Analyzed

U* or UB: Result qualified as non-detect based on validation criteria
J or J*:: Compound was found at a concentration below the detection limit, value estimated based on validation criteria
Parameter exceeds Standard/Guidance Value

APPENDIX B-4

KEY LEACHATE INDICATOR CONTOUR MAPS



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12S (127)	ALKALINITY IN MILLIGRAMS PER LITER (MG/L)
200	ESTIMATED CONCENTRATION CONTOUR FOR ALKALINITY IN MG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

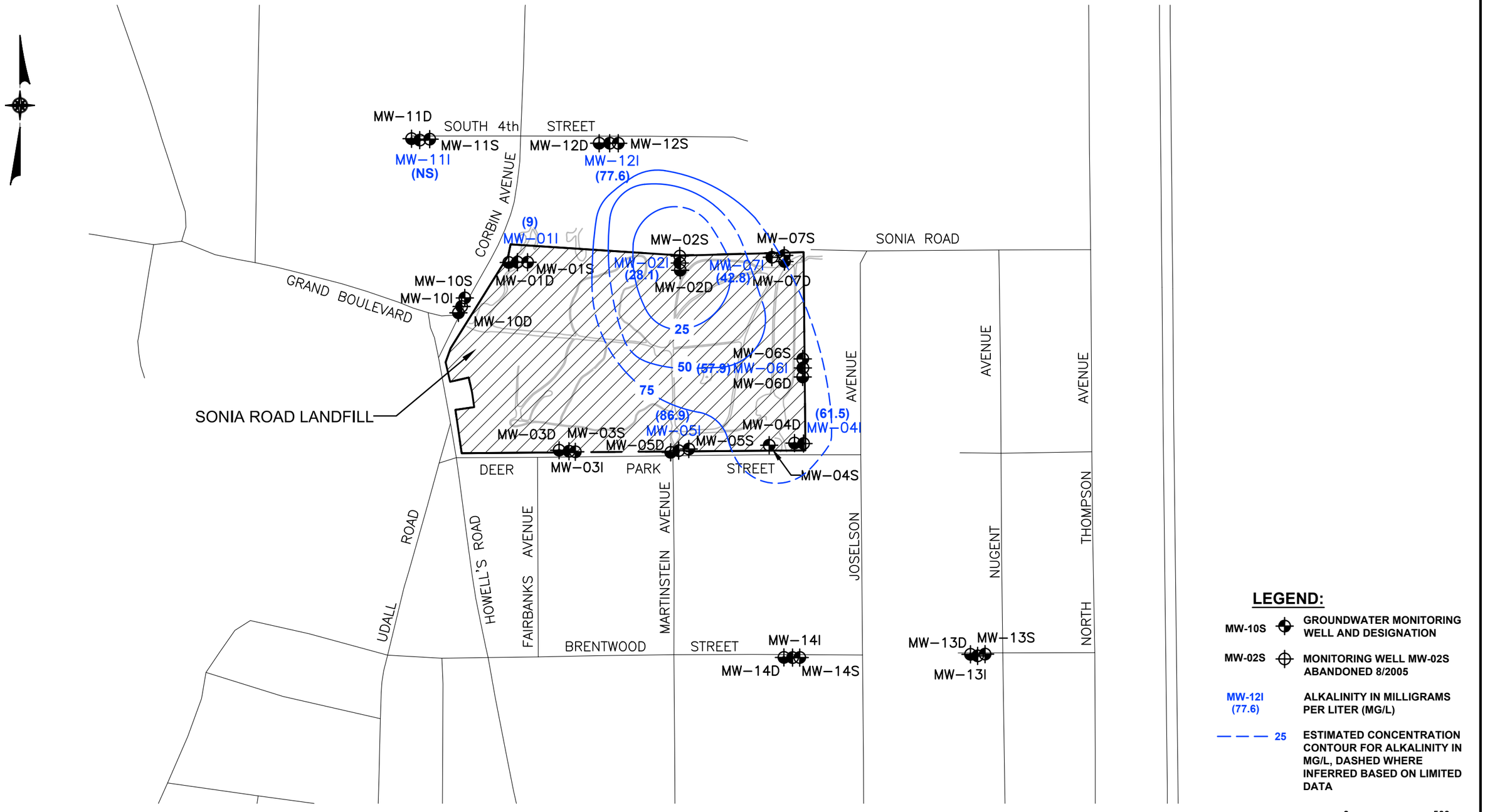
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

SHALLOW UPPER GLACIER WELLS ALKALINITY CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



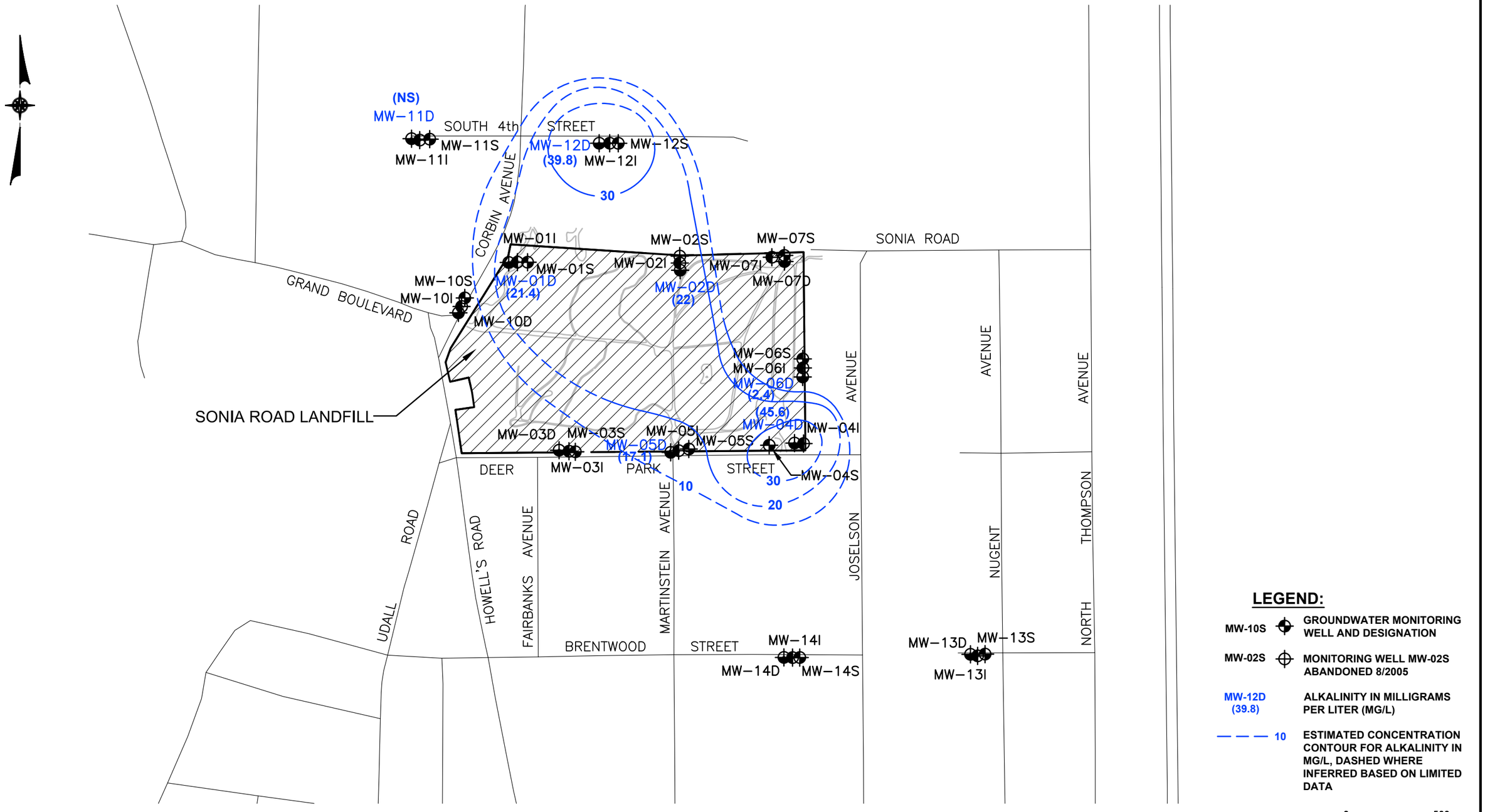
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

INTERMEDIATE UPPER GLACIER WELLS ALKALINITY CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



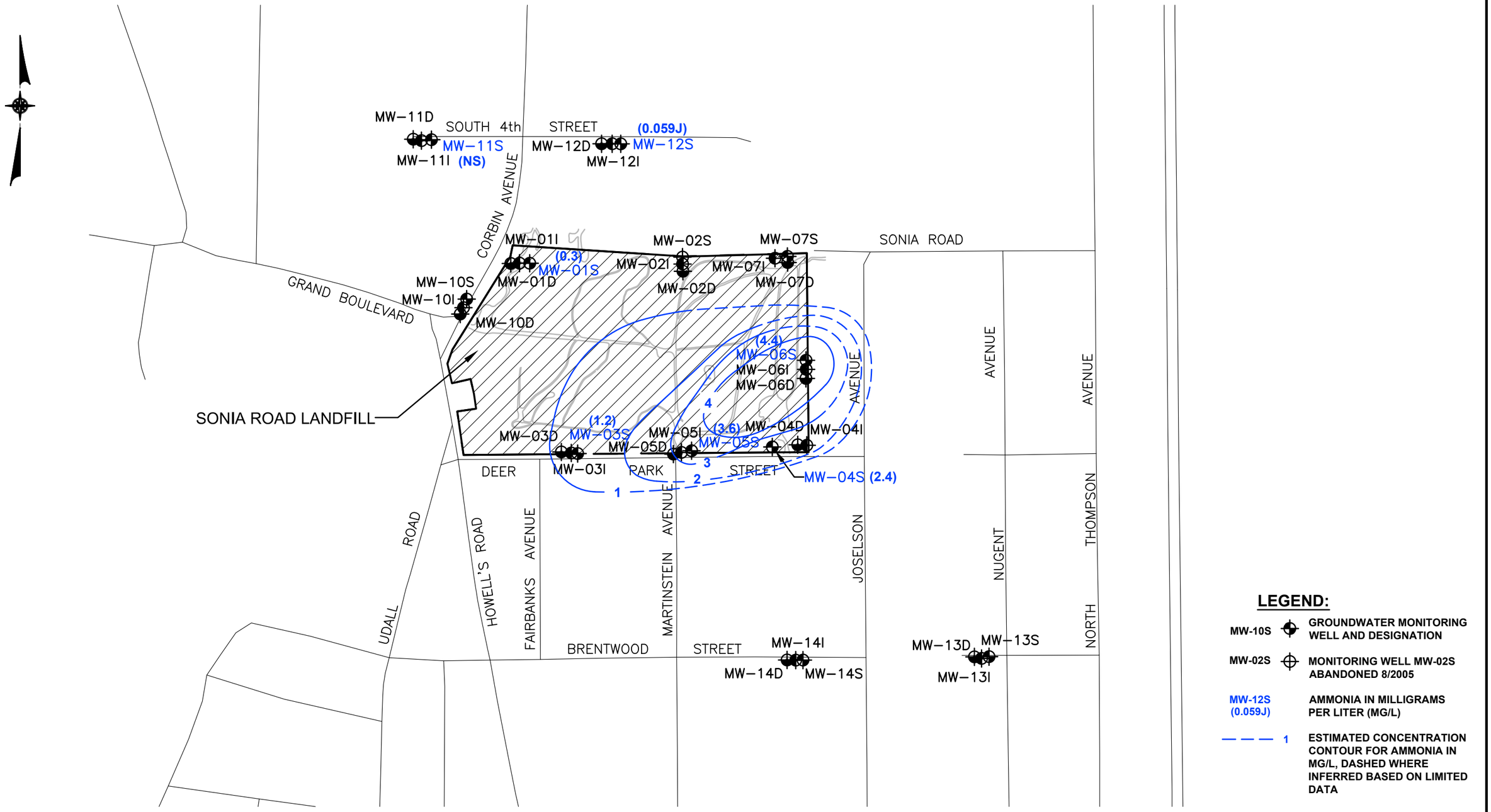
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

DEEP UPPER GLACIER WELLS ALKALINITY CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12S (0.059J)	AMMONIA IN MILLIGRAMS PER LITER (MG/L)
1	ESTIMATED CONCENTRATION CONTOUR FOR AMMONIA IN MG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

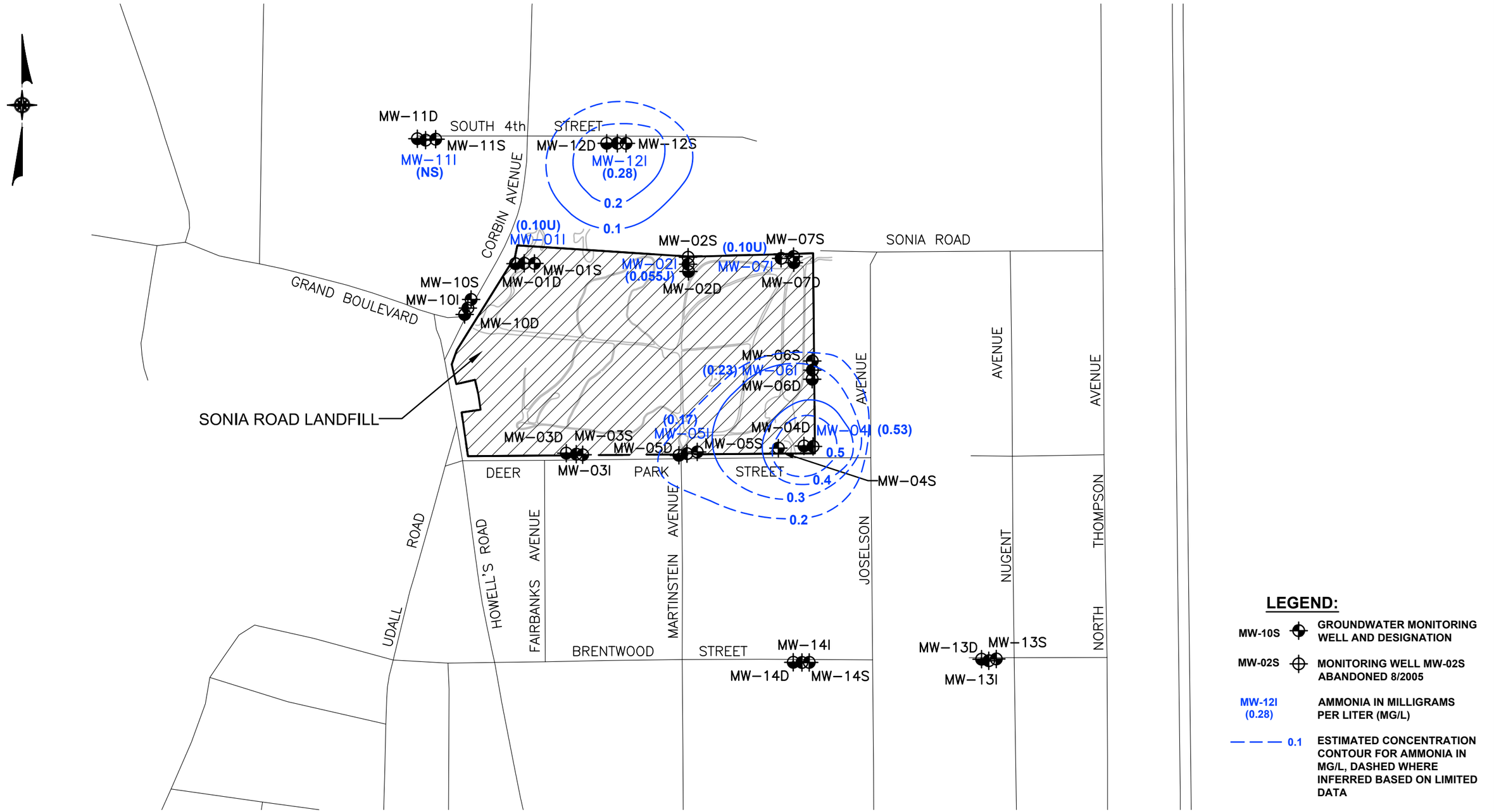
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

SHALLOW UPPER GLACIER WELLS AMMONIA CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

- MW-10S — GROUNDWATER MONITORING WELL AND DESIGNATION
- MW-02S — MONITORING WELL MW-02S ABANDONED 8/2005
- MW-12I (0.28) — AMMONIA IN MILLIGRAMS PER LITER (MG/L)
- 0.1 — ESTIMATED CONCENTRATION CONTOUR FOR AMMONIA IN MG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

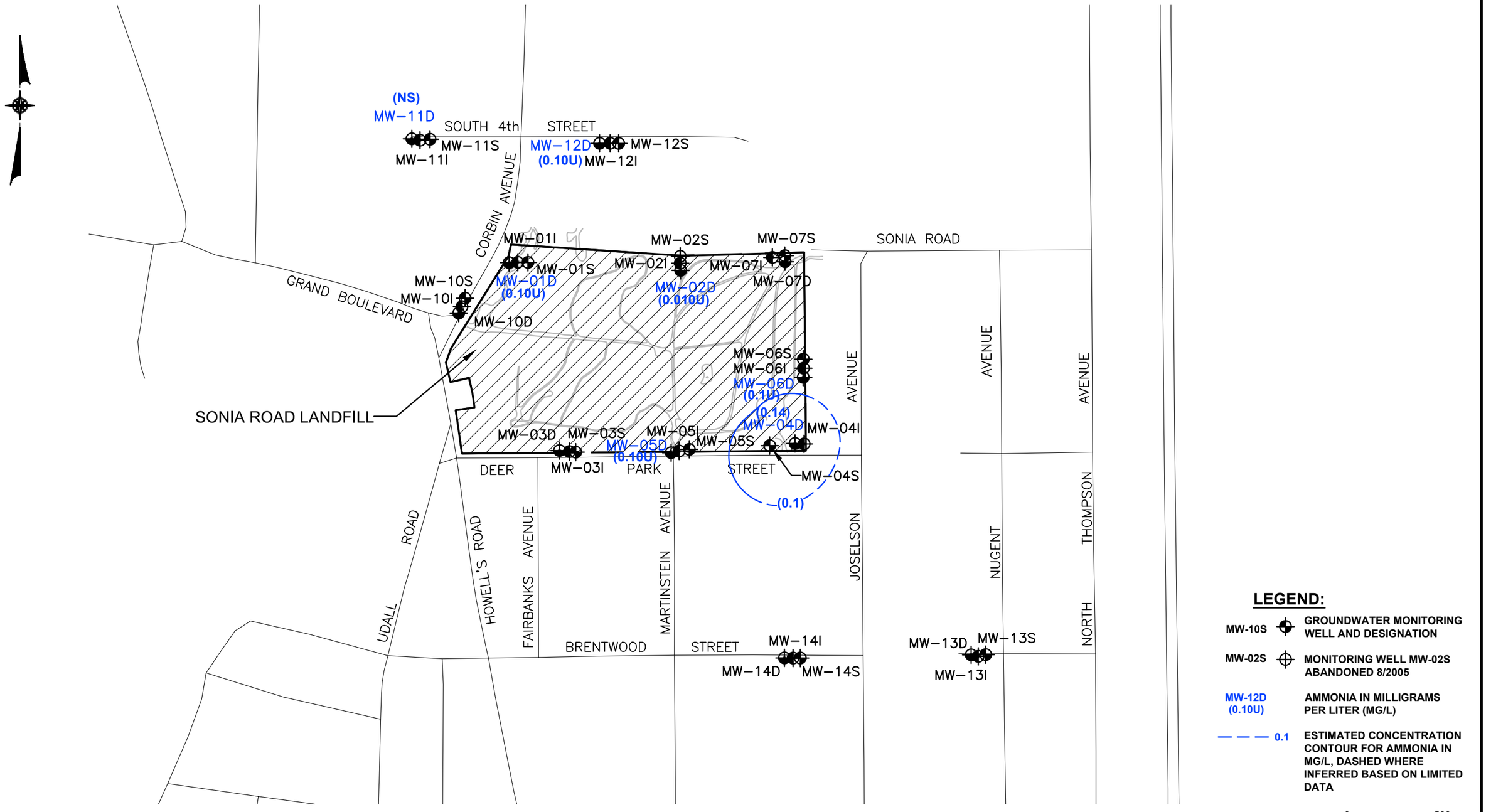
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

INTERMEDIATE UPPER GLACIER WELLS AMMONIA CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12D (0.10U)	AMMONIA IN MILLIGRAMS PER LITER (MG/L)
0.1	ESTIMATED CONCENTRATION CONTOUR FOR AMMONIA IN MG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

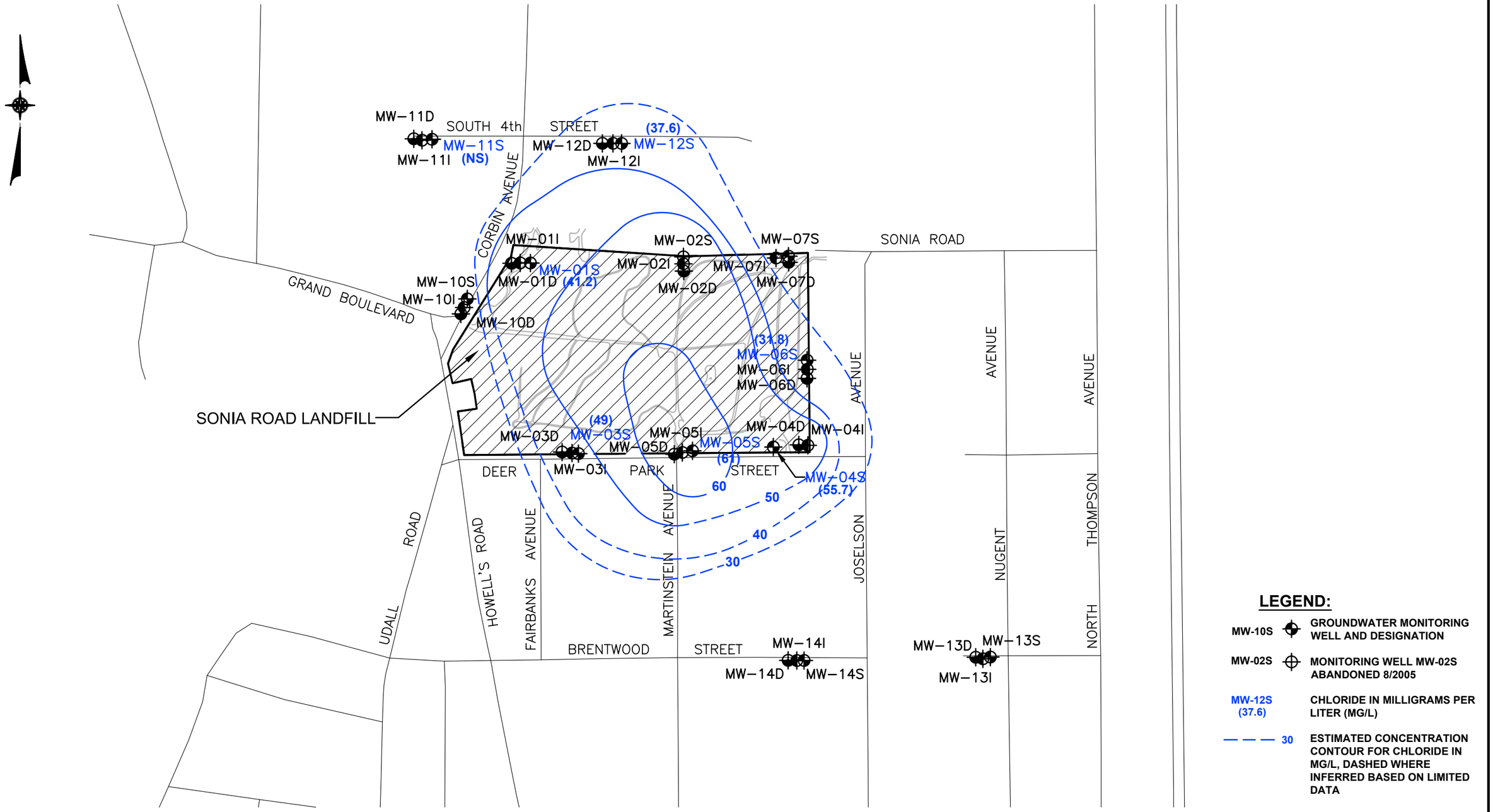
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

DEEP UPPER GLACIER WELLS AMMONIA CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



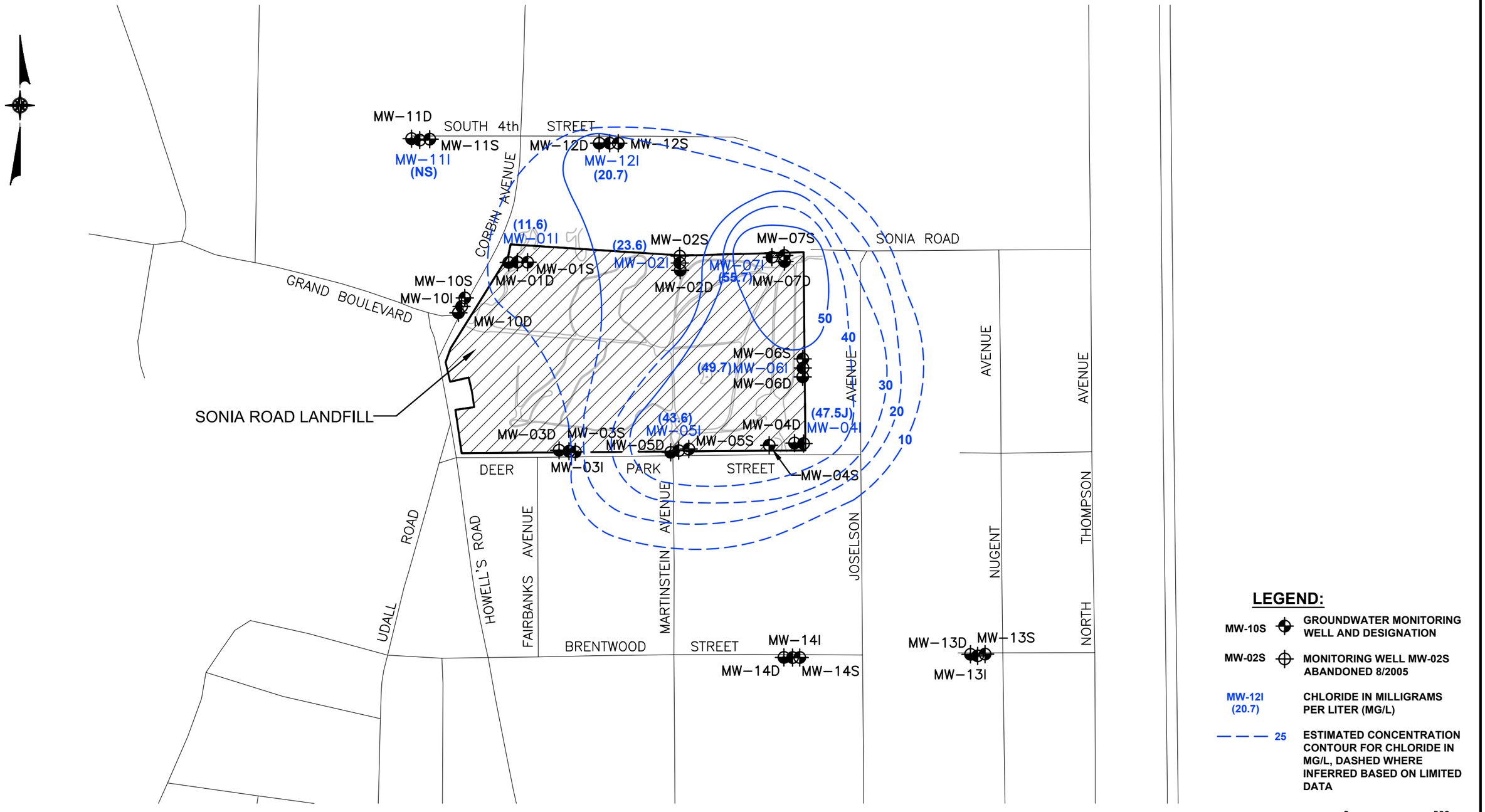
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

SHALLOW UPPER GLACIER WELLS CHLORIDE CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12I (20.7)	CHLORIDE IN MILLIGRAMS PER LITER (MG/L)
25	ESTIMATED CONCENTRATION CONTOUR FOR CHLORIDE IN MG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

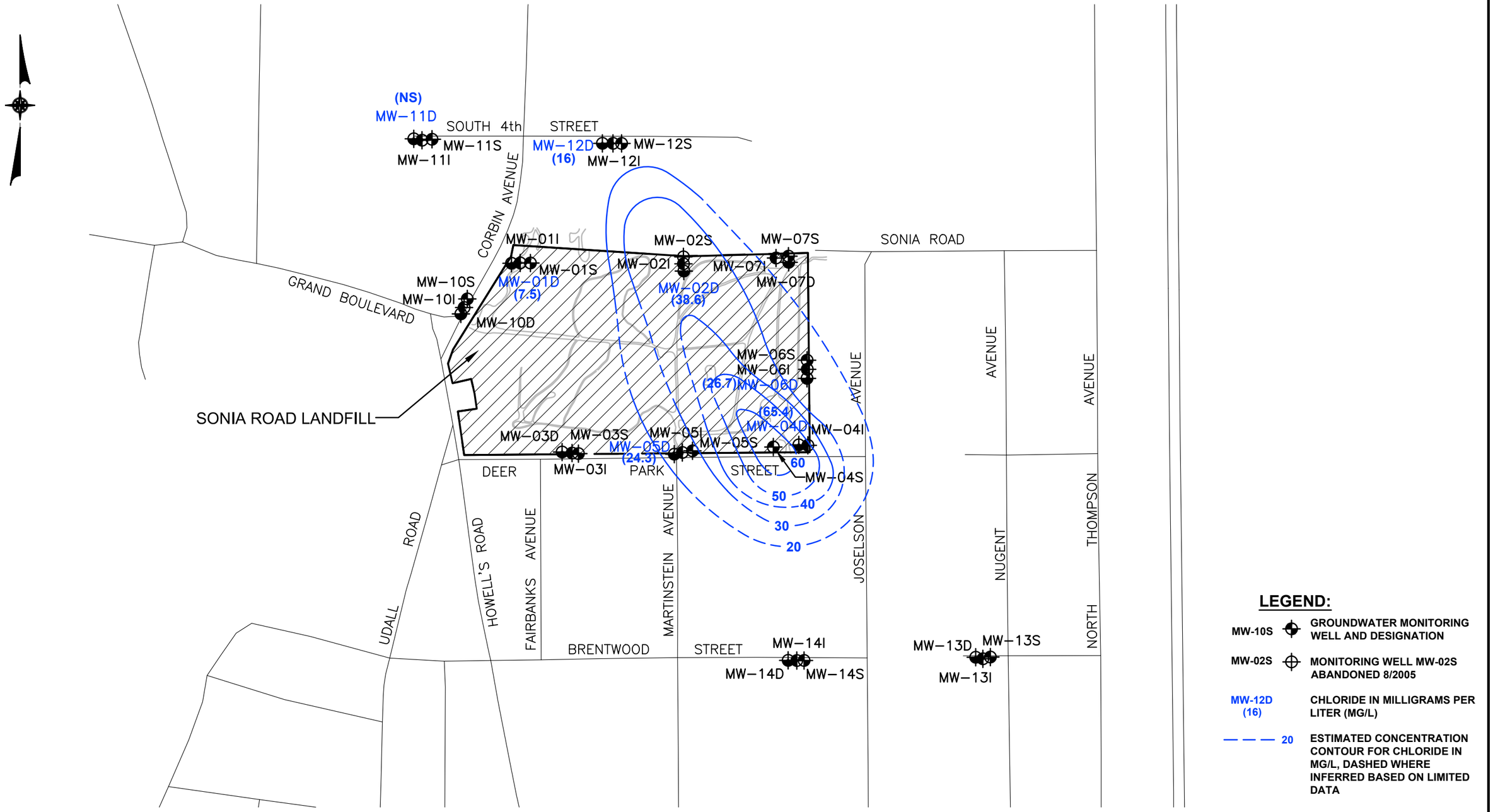
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

INTERMEDIATE UPPER GLACIER WELLS CHLORIDE CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12D (16)	CHLORIDE IN MILLIGRAMS PER LITER (MG/L)
20	ESTIMATED CONCENTRATION CONTOUR FOR CHLORIDE IN MG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

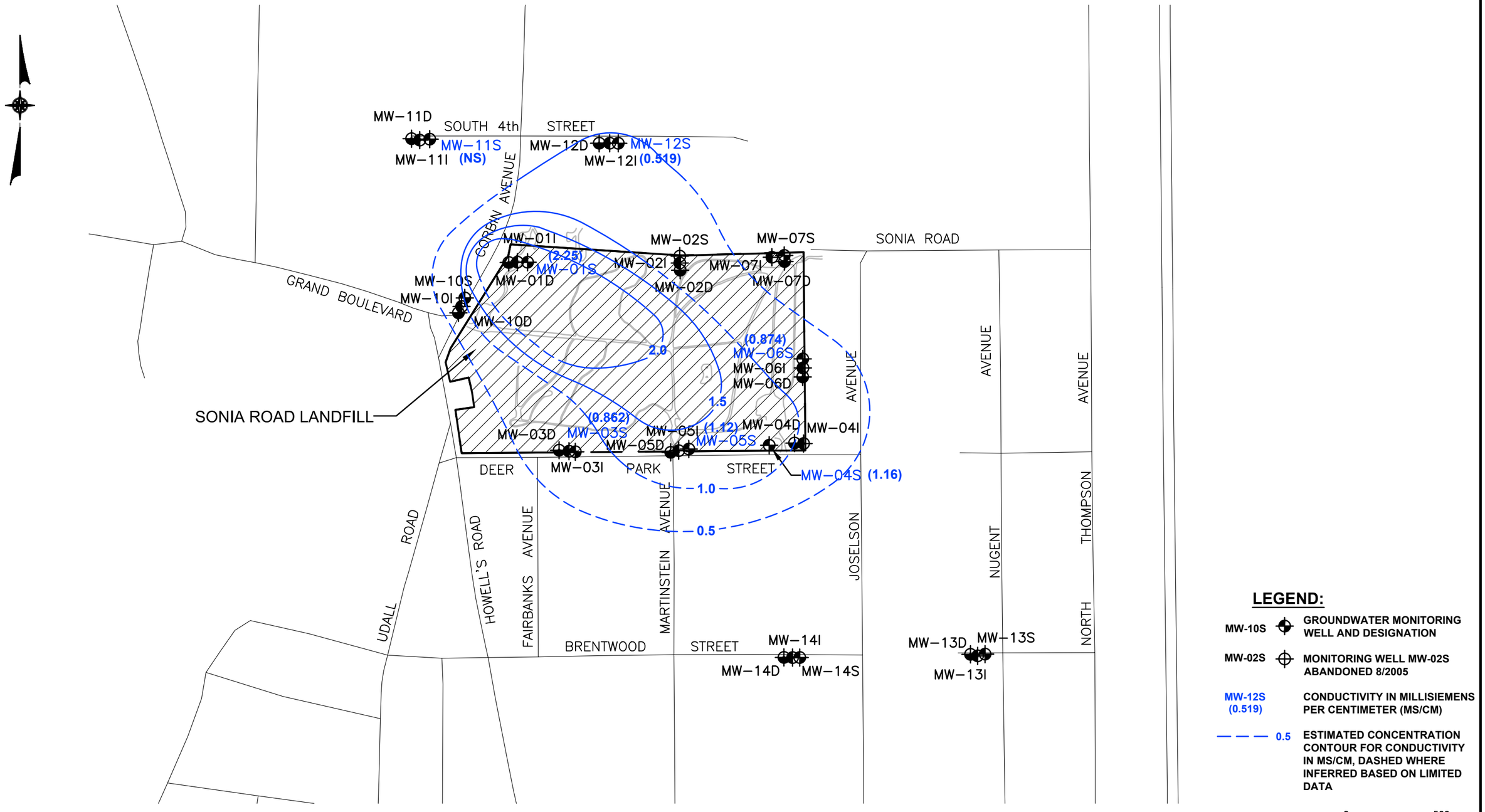
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

DEEP UPPER GLACIER WELLS CHLORIDE CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

- MW-10S — GROUNDWATER MONITORING WELL AND DESIGNATION
- MW-02S — MONITORING WELL MW-02S ABANDONED 8/2005
- MW-12S (0.519) — CONDUCTIVITY IN MILLISIEMENS PER CENTIMETER (MS/CM)
- 0.5 — ESTIMATED CONCENTRATION CONTOUR FOR CONDUCTIVITY IN MS/CM, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

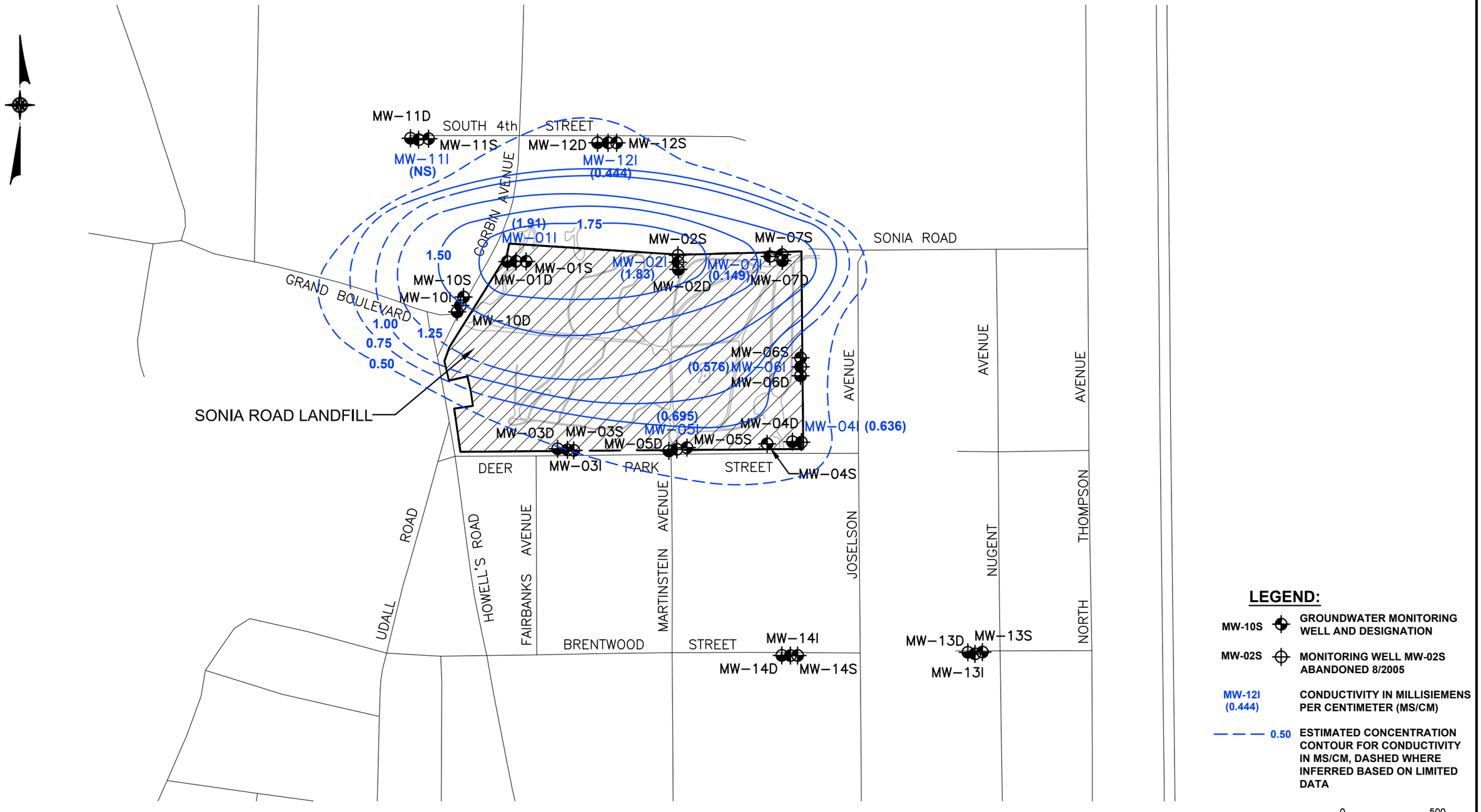
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

SHALLOW UPPER GLACIER WELLS CONDUCTIVITY CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12I (0.444)	CONDUCTIVITY IN MILLISIEMENS PER CENTIMETER (MS/CM)
0.50	ESTIMATED CONCENTRATION CONTOUR FOR CONDUCTIVITY IN MS/CM, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

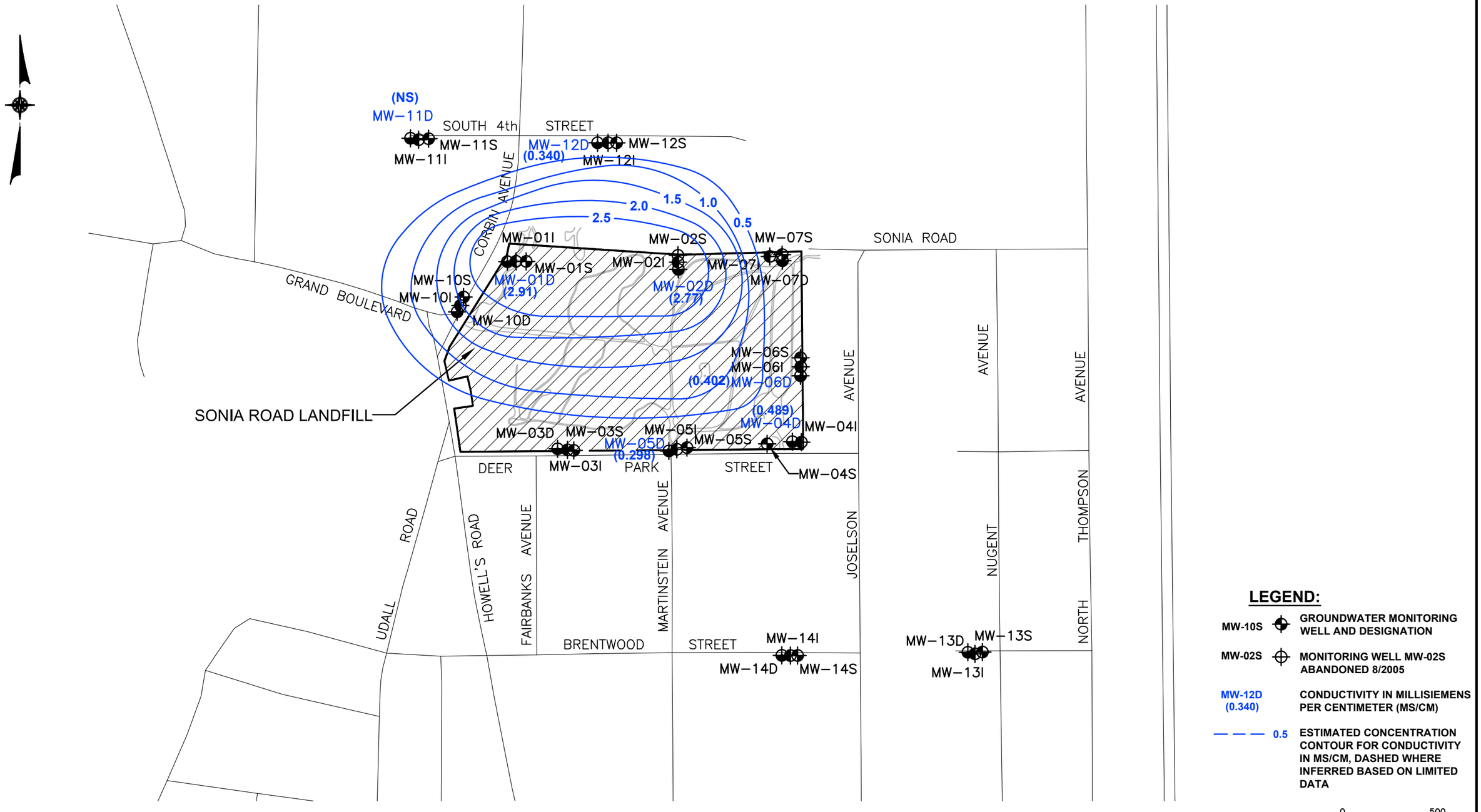
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

INTERMEDIATE UPPER GLACIER WELLS CONDUCTIVITY CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12D (0.340)	CONDUCTIVITY IN MILLISIEMENS PER CENTIMETER (MS/CM)
0.5	ESTIMATED CONCENTRATION CONTOUR FOR CONDUCTIVITY IN MS/CM, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

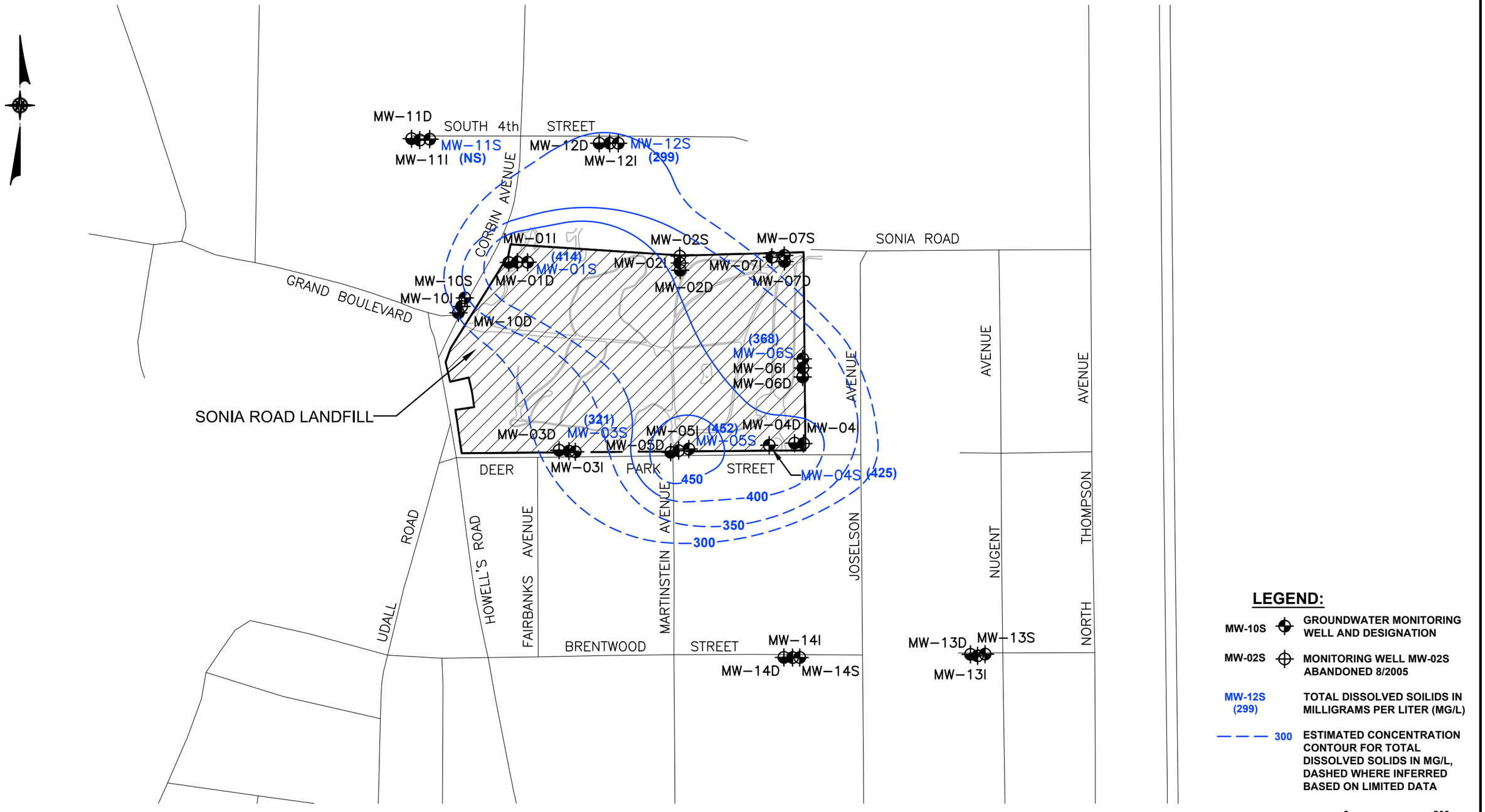
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

DEEP UPPER GLACIER WELLS CONDUCTIVITY CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



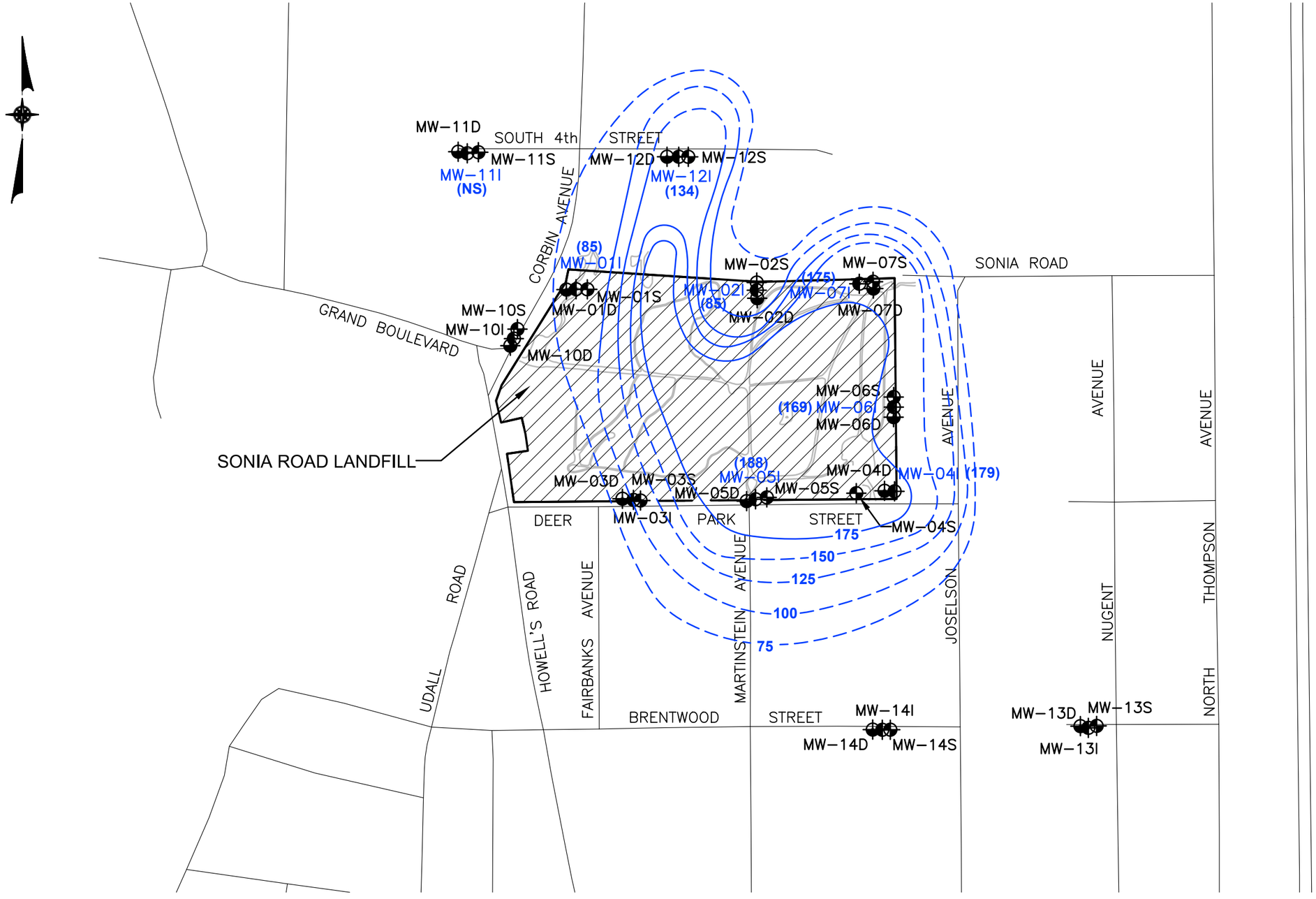
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

SHALLOW UPPER GLACIER WELLS TOTAL DISSOLVED SOLIDS CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12I (134)	TOTAL DISSOLVED SOLIDS IN MILLIGRAMS PER LITER (MG/L)
75	ESTIMATED CONCENTRATION CONTOUR FOR TOTAL DISSOLVED SOLIDS IN MG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

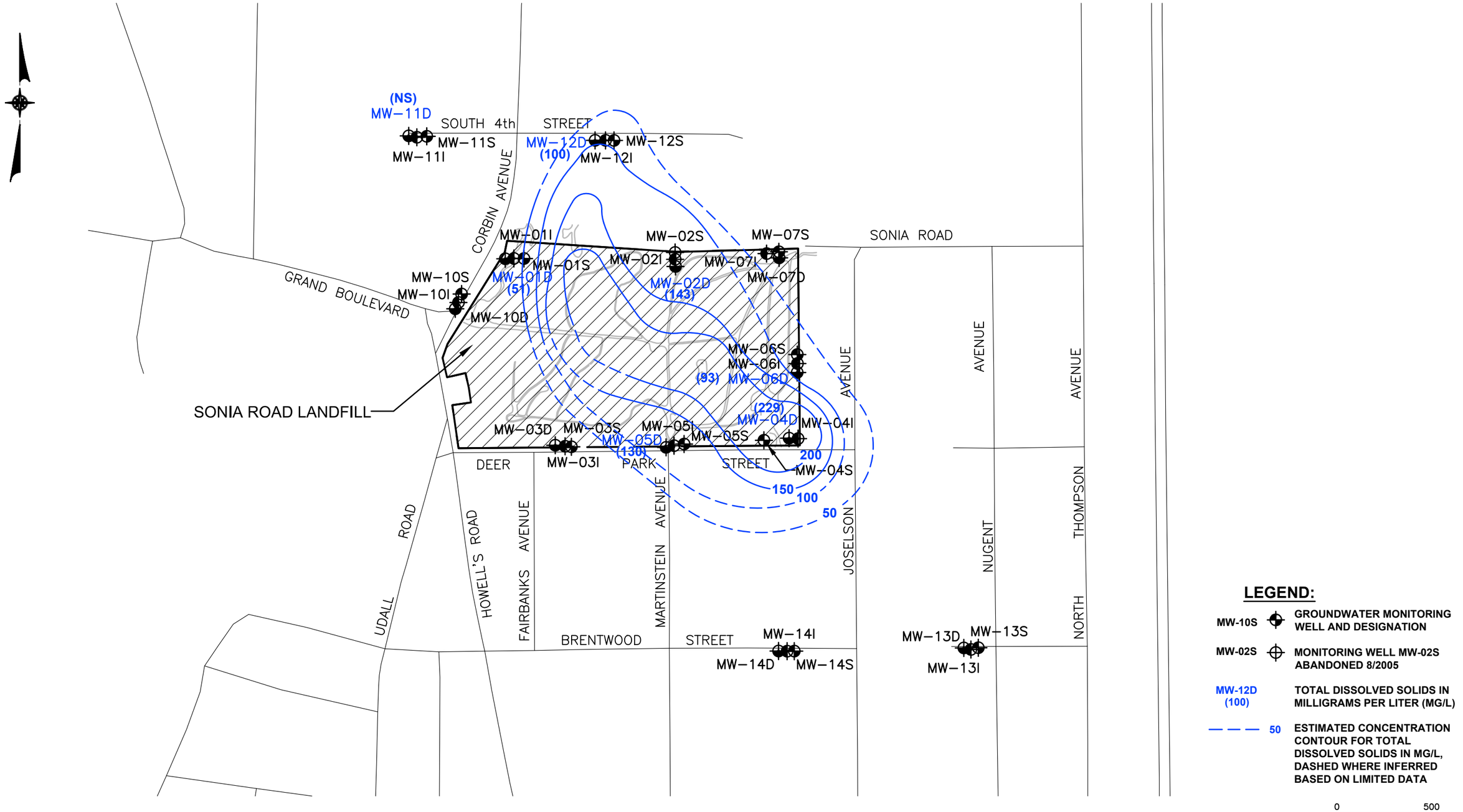
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

INTERMEDIATE UPPER GLACIER WELLS TOTAL DISSOLVED SOLIDS CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



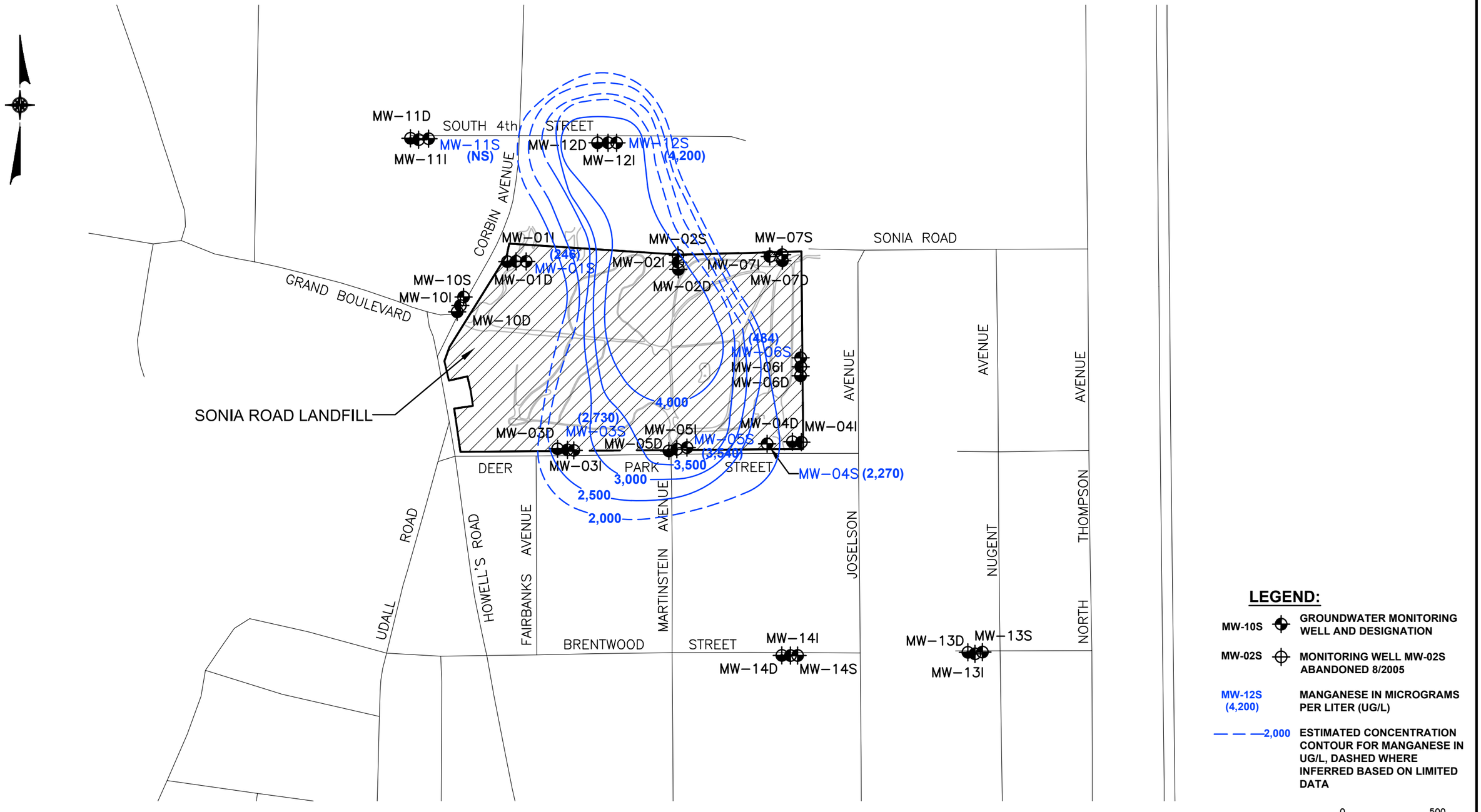
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

DEEP UPPER GLACIER WELLS TOTAL DISSOLVED SOLIDS CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12S (4,200)	MANGANESE IN MICROGRAMS PER LITER (UG/L)
—2,000	ESTIMATED CONCENTRATION CONTOUR FOR MANGANESE IN UG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

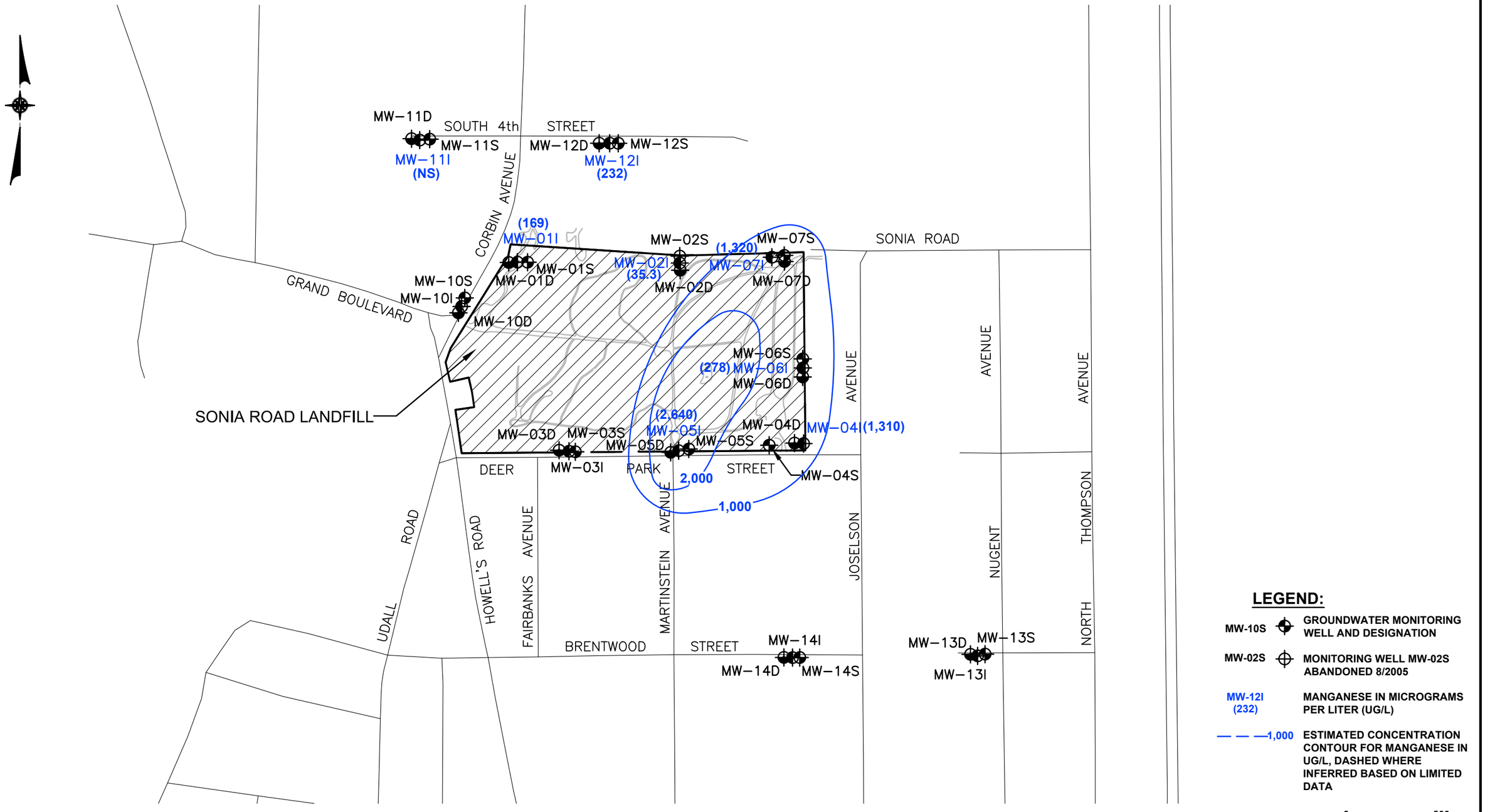
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

SHALLOW UPPER GLACIER WELLS MANGANESE CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12I (232)	MANGANESE IN MICROGRAMS PER LITER (UG/L)
1,000	ESTIMATED CONCENTRATION CONTOUR FOR MANGANESE IN UG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

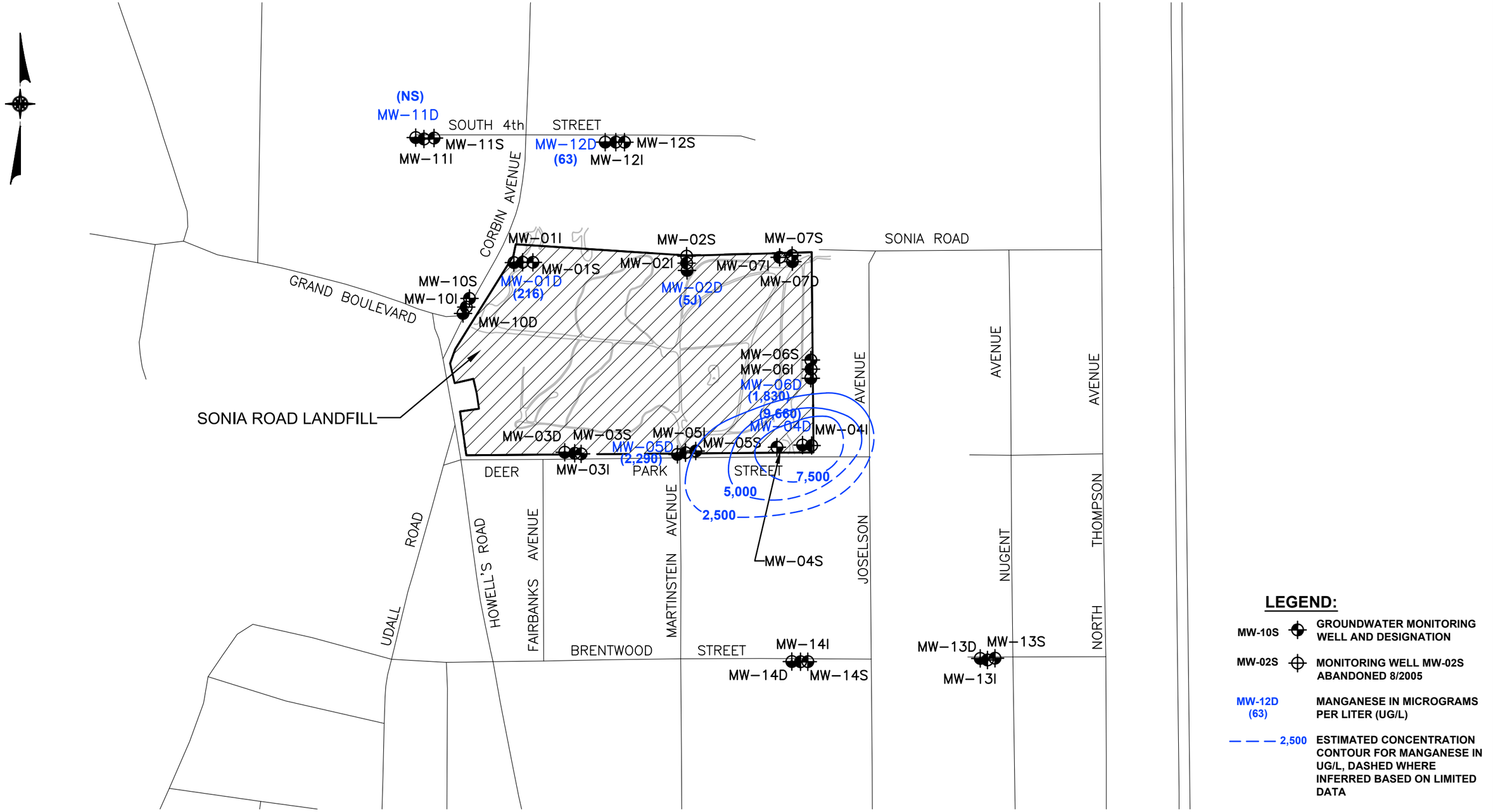
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

5INTERMEDAITE UPPER GLACIER WELLS MANGANESE CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12D (63)	MANGANESE IN MICROGRAMS PER LITER (UG/L)
2,500	ESTIMATED CONCENTRATION CONTOUR FOR MANGANESE IN UG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

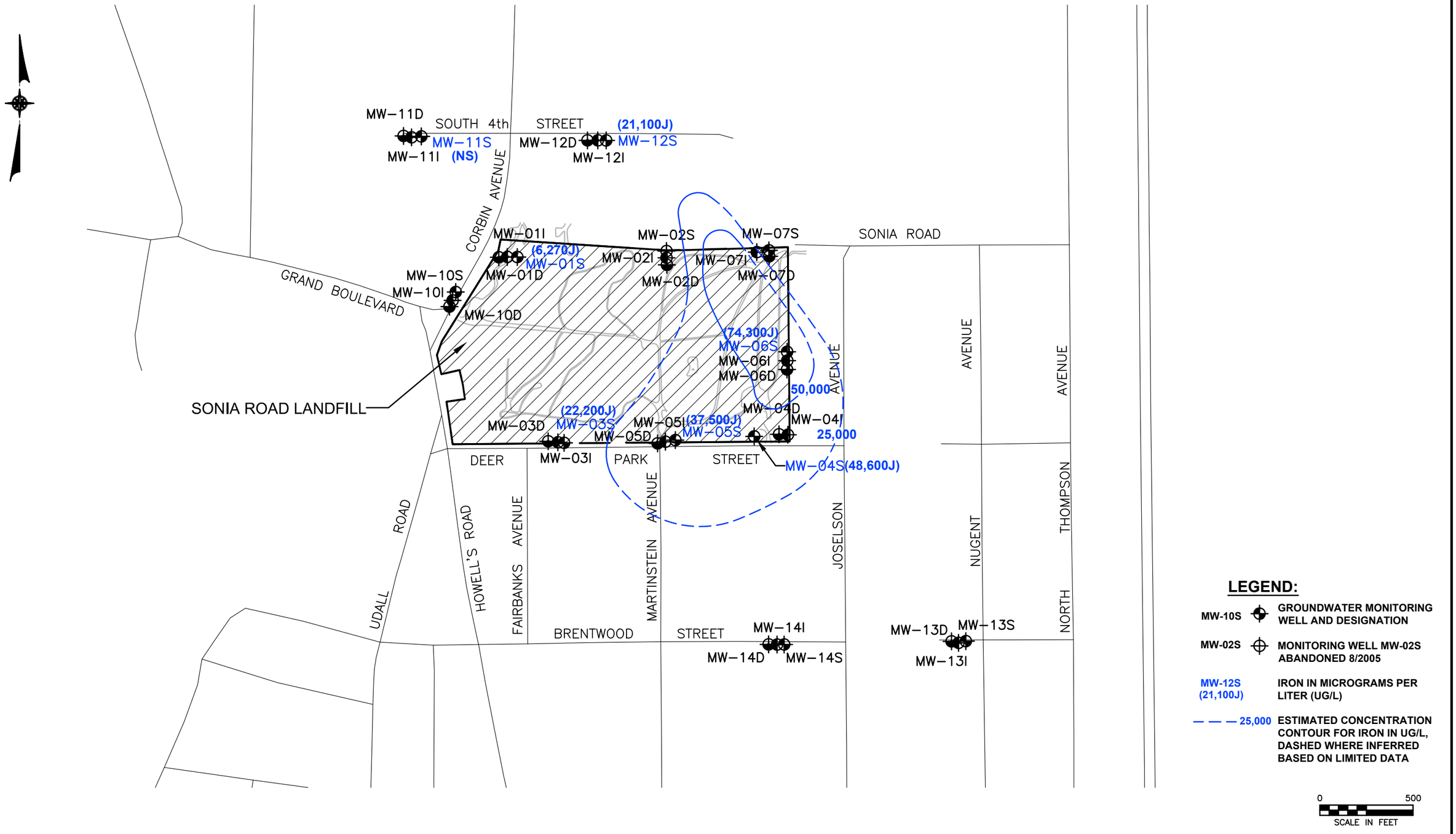
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

DEEP UPPER GLACIER WELLS MANGANESE CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



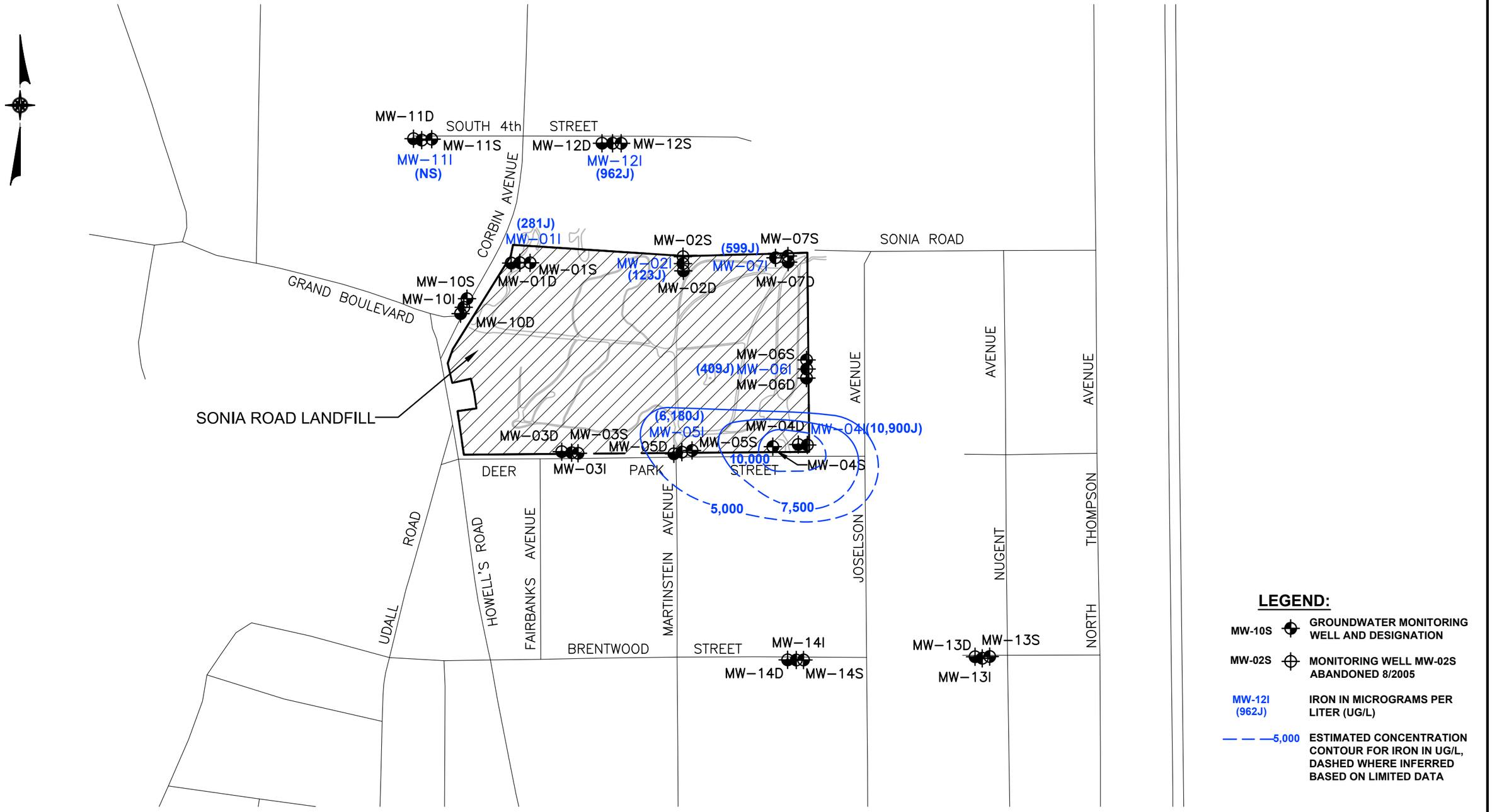
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

SHALLOW UPPER GLACIER WELLS IRON CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



LEGEND:

MW-10S	GROUNDWATER MONITORING WELL AND DESIGNATION
MW-02S	MONITORING WELL MW-02S ABANDONED 8/2005
MW-12I (962J)	IRON IN MICROGRAMS PER LITER (UG/L)
5,000	ESTIMATED CONCENTRATION CONTOUR FOR IRON IN UG/L, DASHED WHERE INFERRED BASED ON LIMITED DATA

0 500
SCALE IN FEET

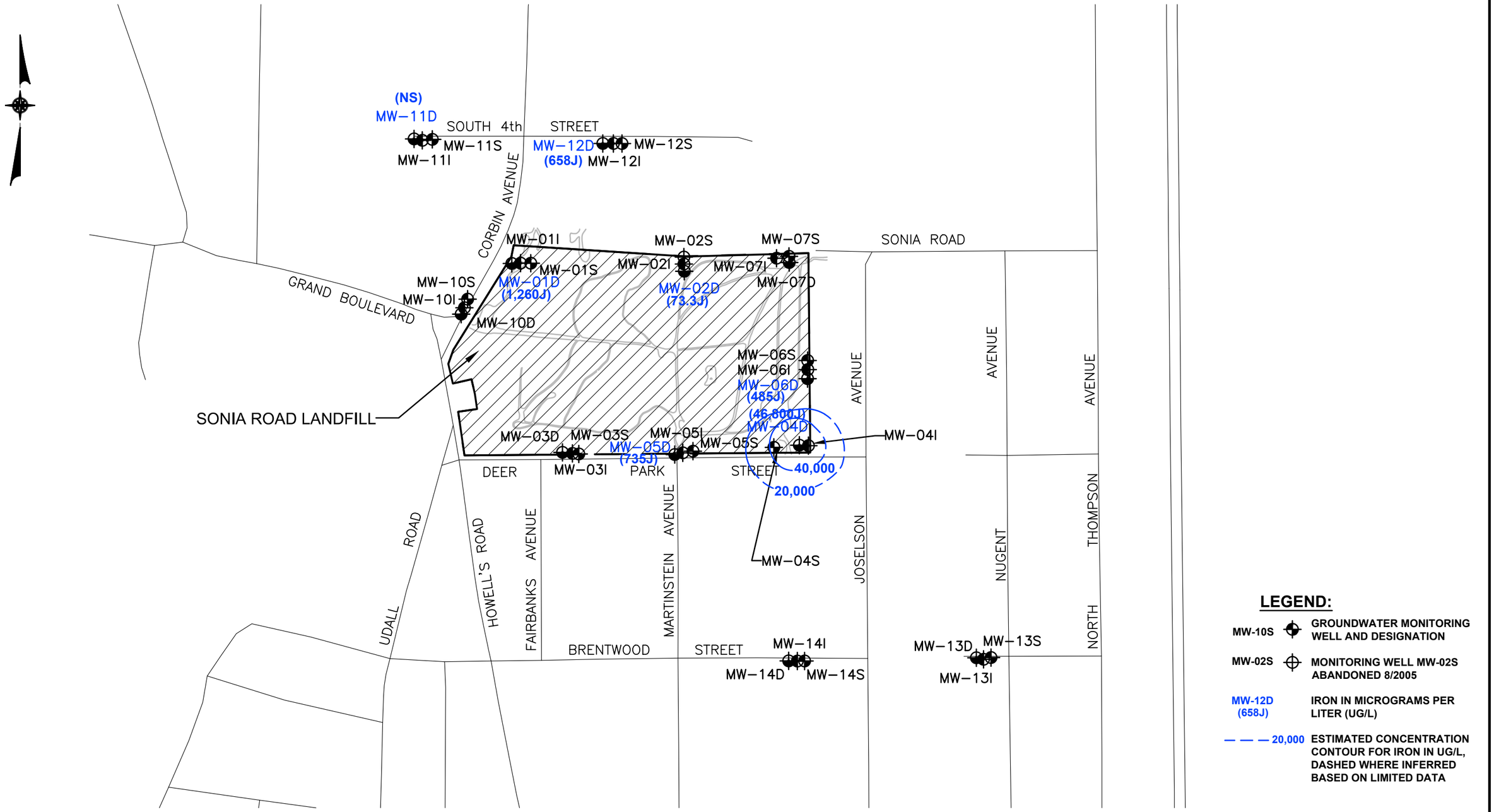
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

INTERMEDAITE UPPER GLACIER WELLS IRON CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4



D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
POST CLOSURE GROUNDWATER MONITORING PROGRAM

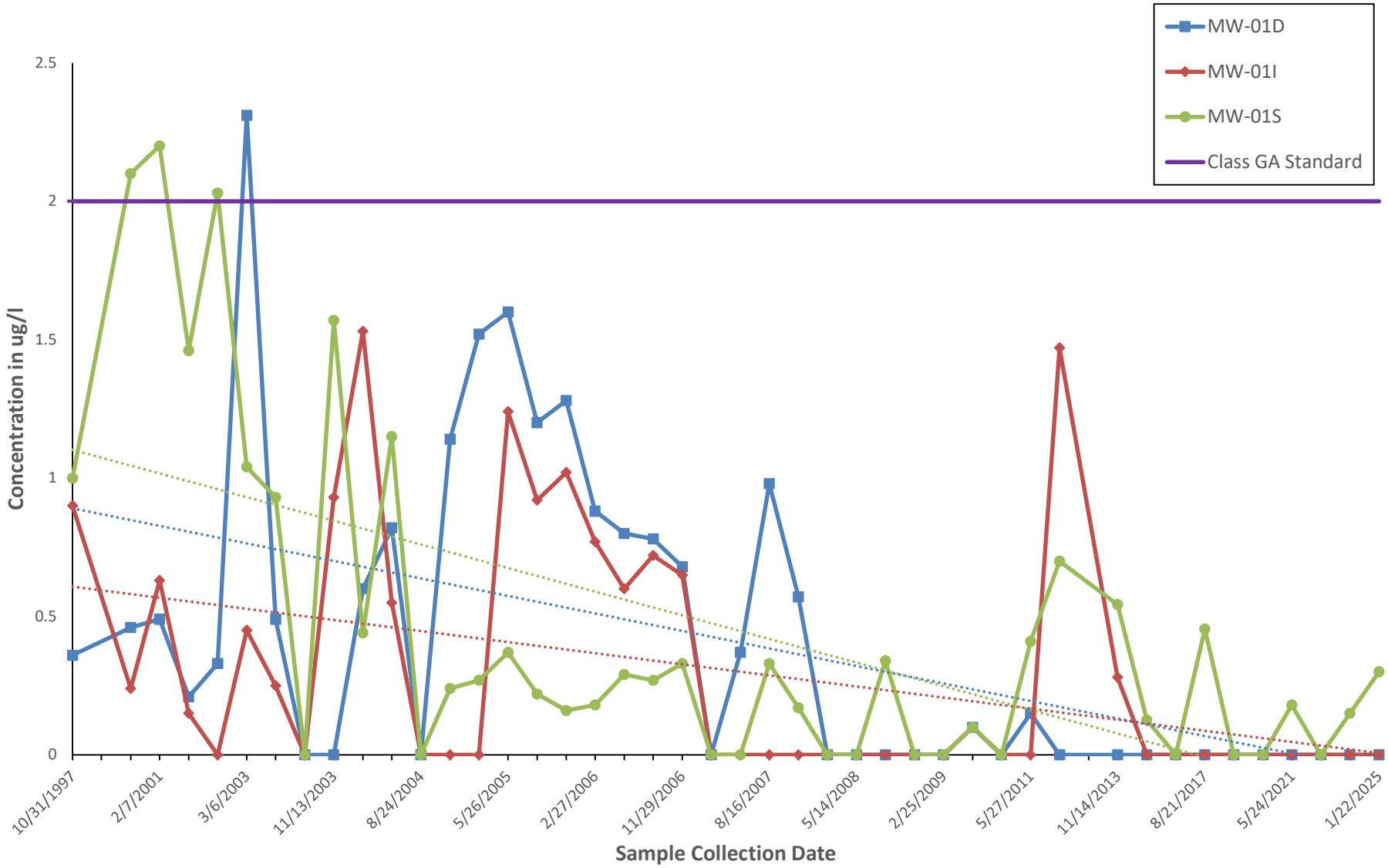
DEEP UPPER GLACIER WELLS IRON CONTOUR MAP JANUARY 2025

SCALE: 1" = 500'

APPENDIX B-4

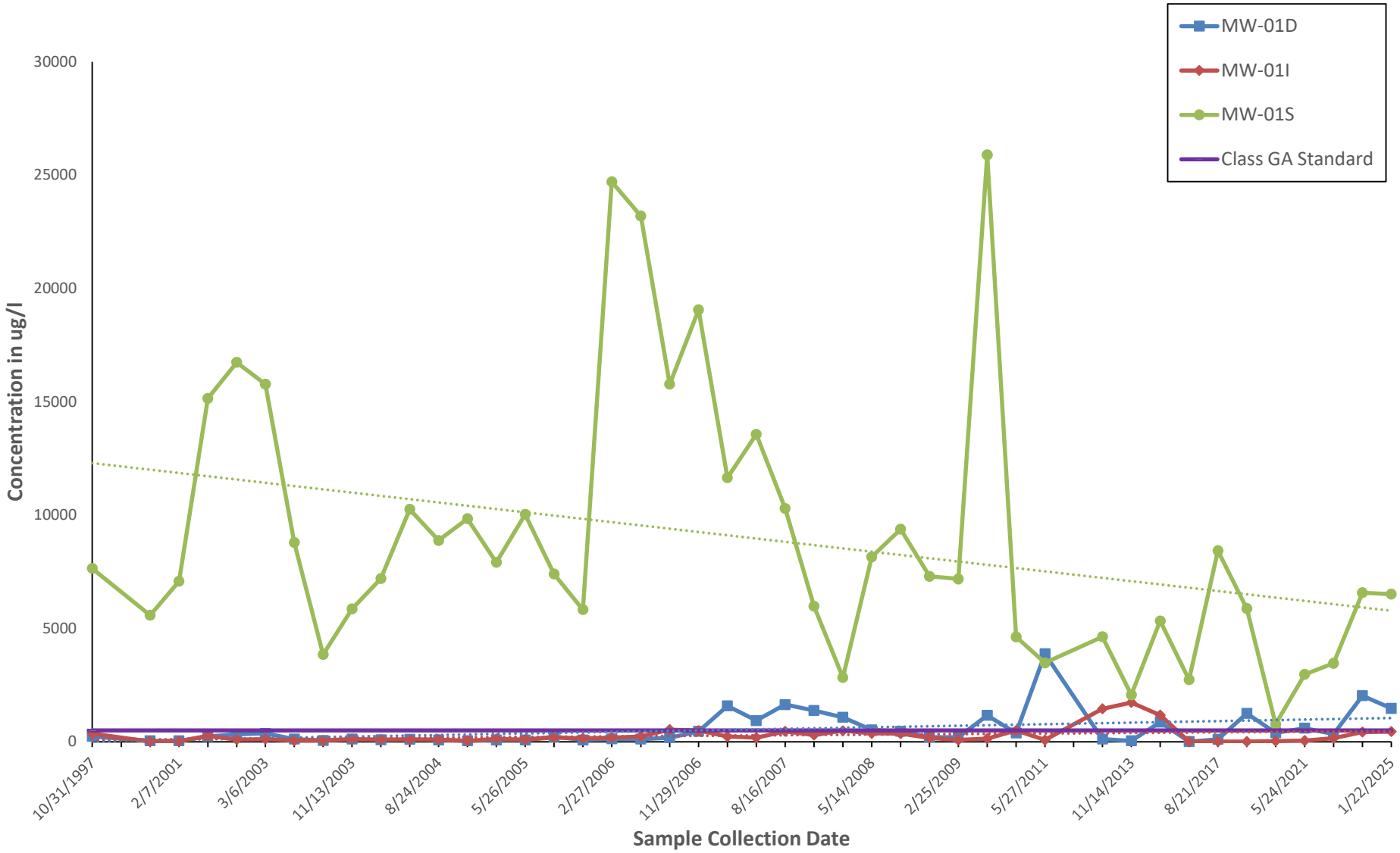
APPENDIX C

WATER QUALITY GRAPHS



D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL AMMONIA DATA FOR** **MONITORING WELL CLUSTER 1**	**Appendix C**

7/8/2025

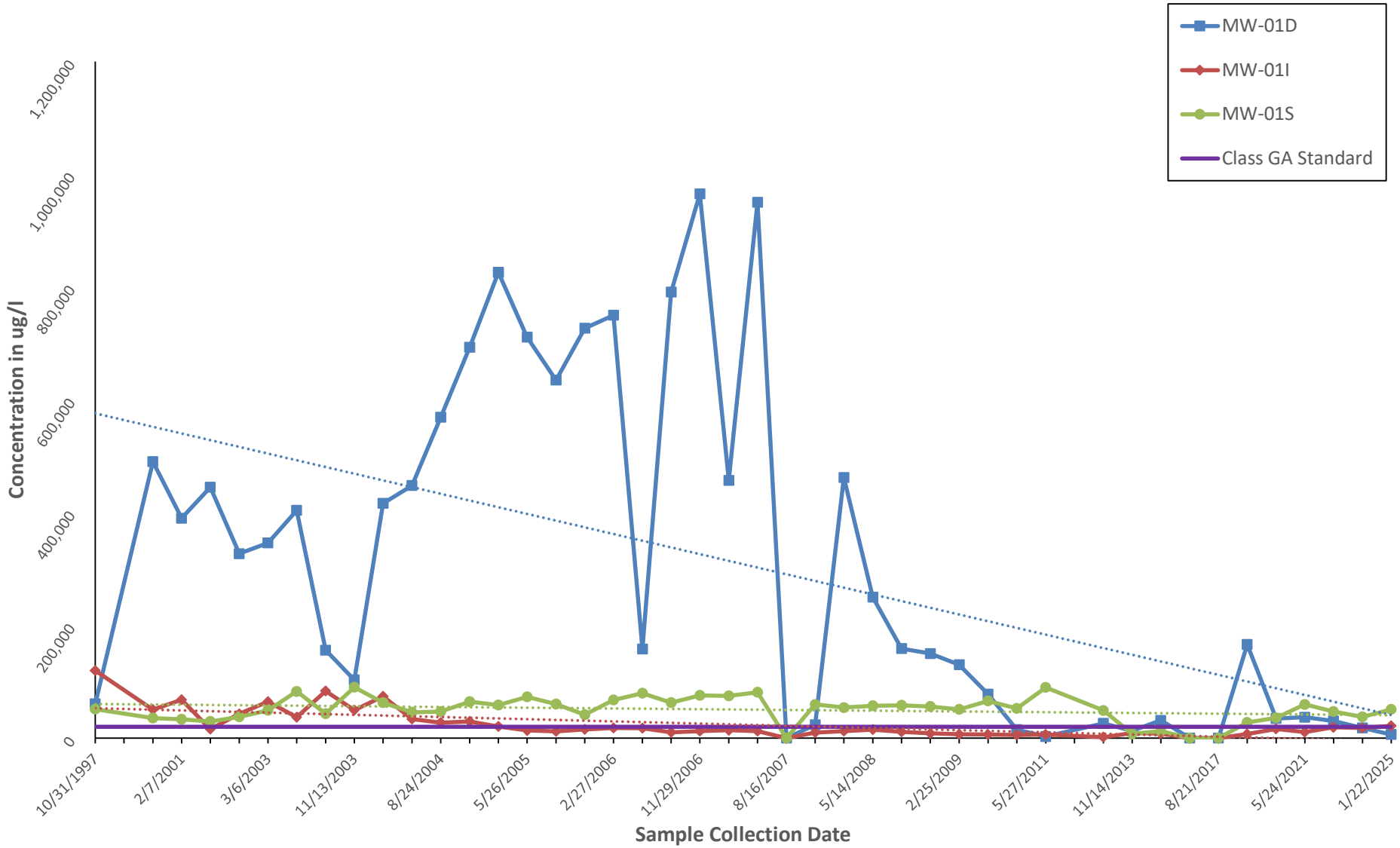


D&B ENGINEERS AND ARCHITECTS

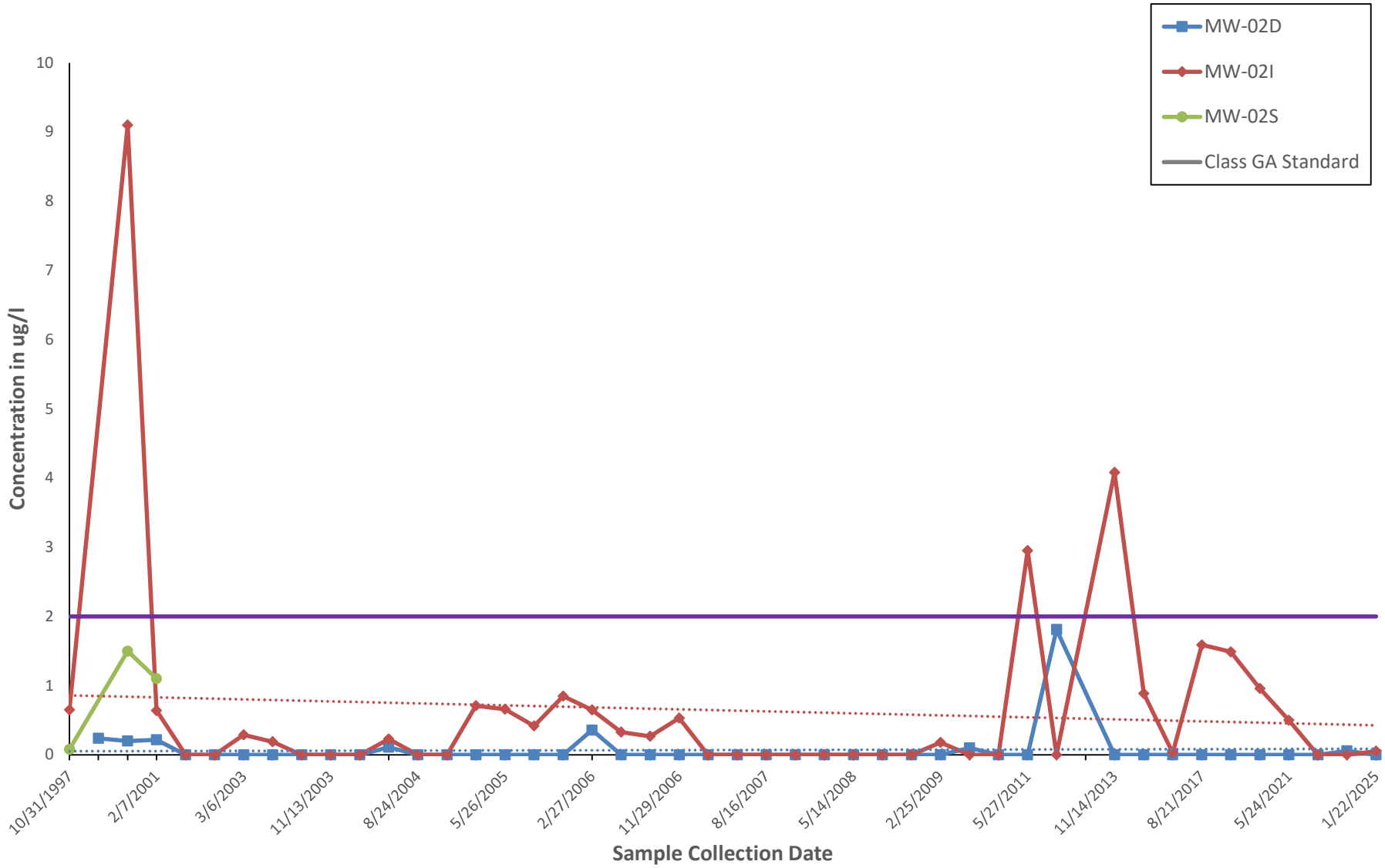
SONIA ROAD LANDFILL

HISTORICAL SUM OF IRON AND MANGANESE DATA FOR MONITORING WELL CLUSTER 1

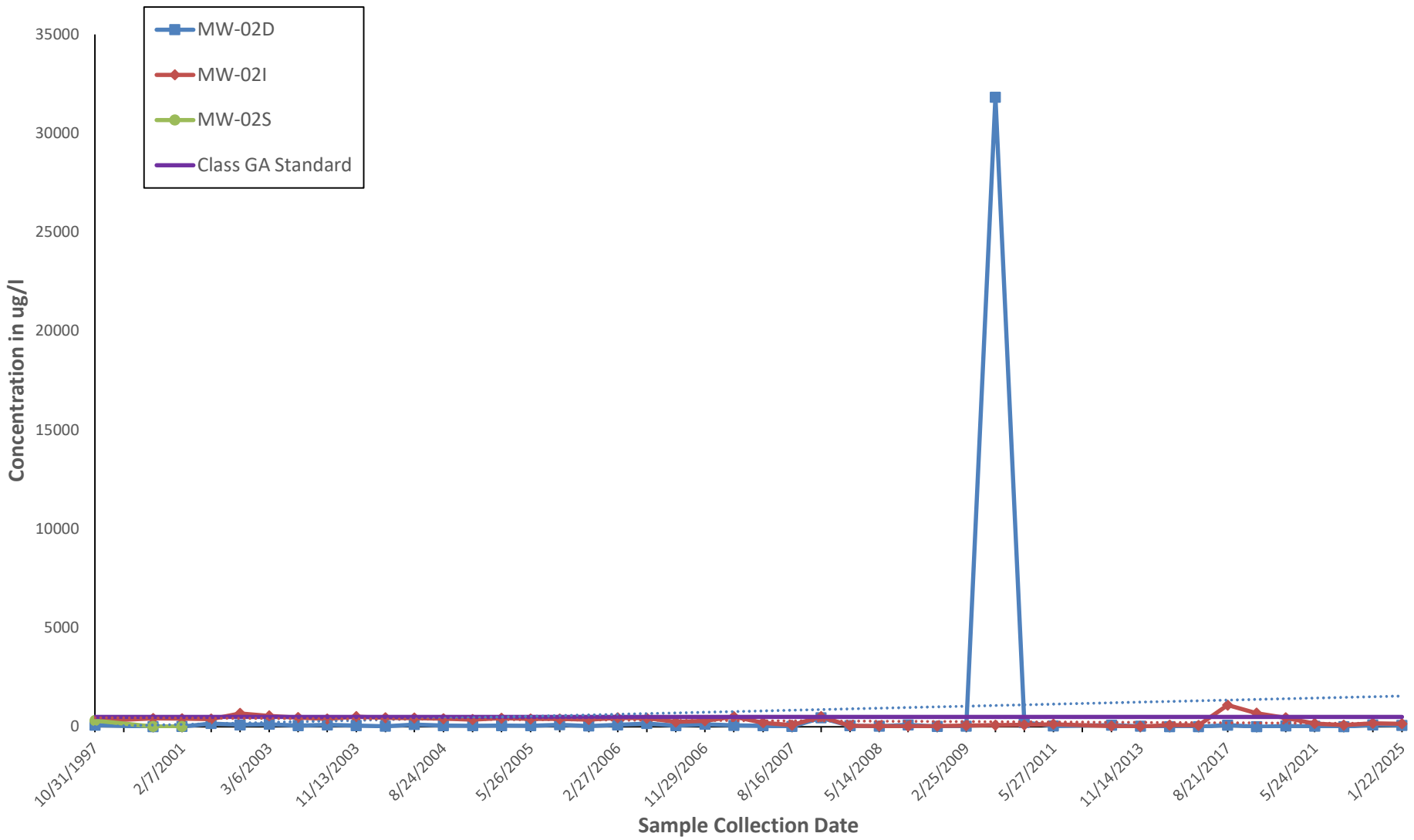
Appendix C



D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL SODIUM DATA FOR** **MONITORING WELL CLUSTER 1**	**Appendix C**



D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL AMMONIA DATA FOR** **MONITORING WELL CLUSTER 2**	**Appendix C**

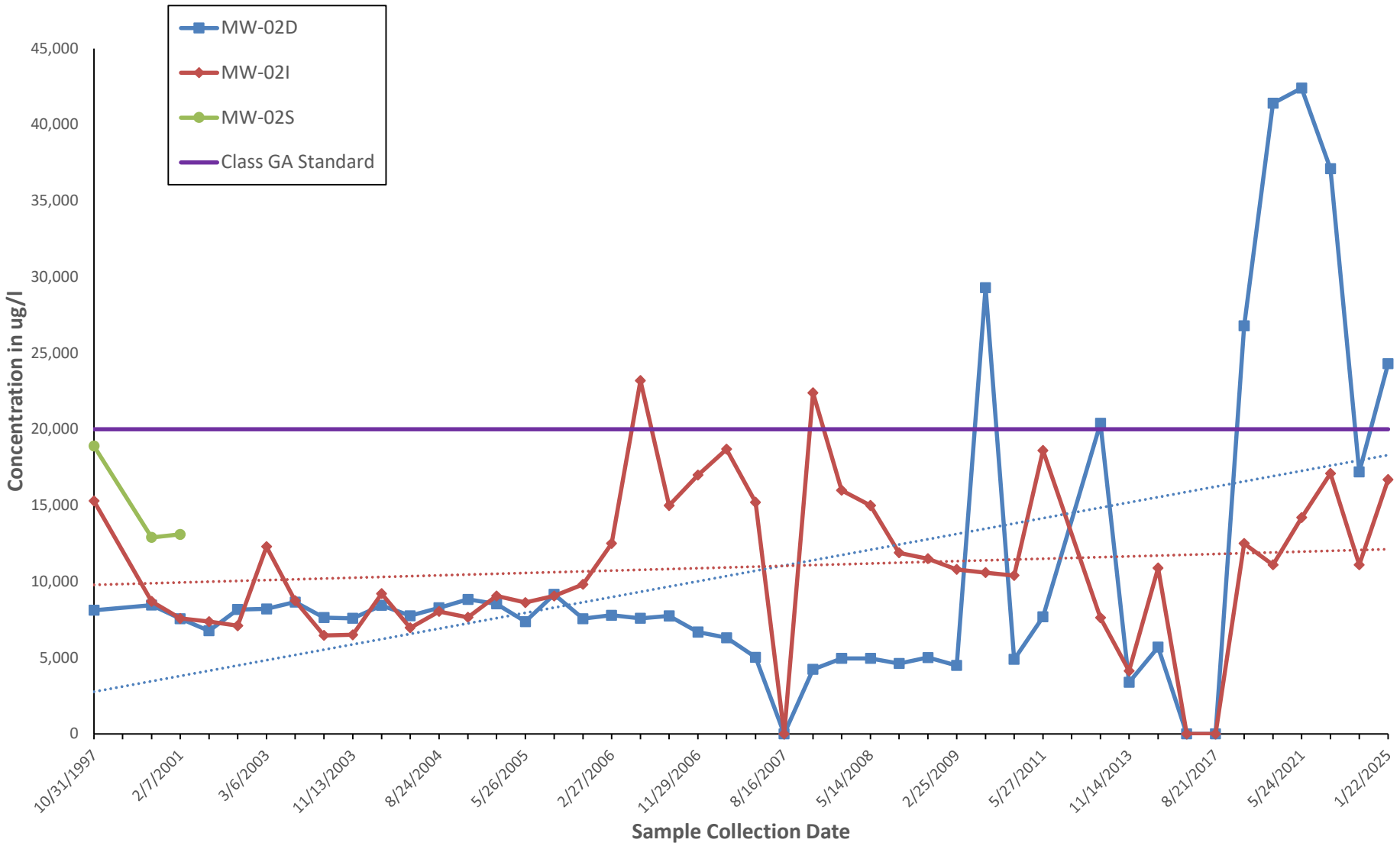


D&B ENGINEERS AND ARCHITECTS

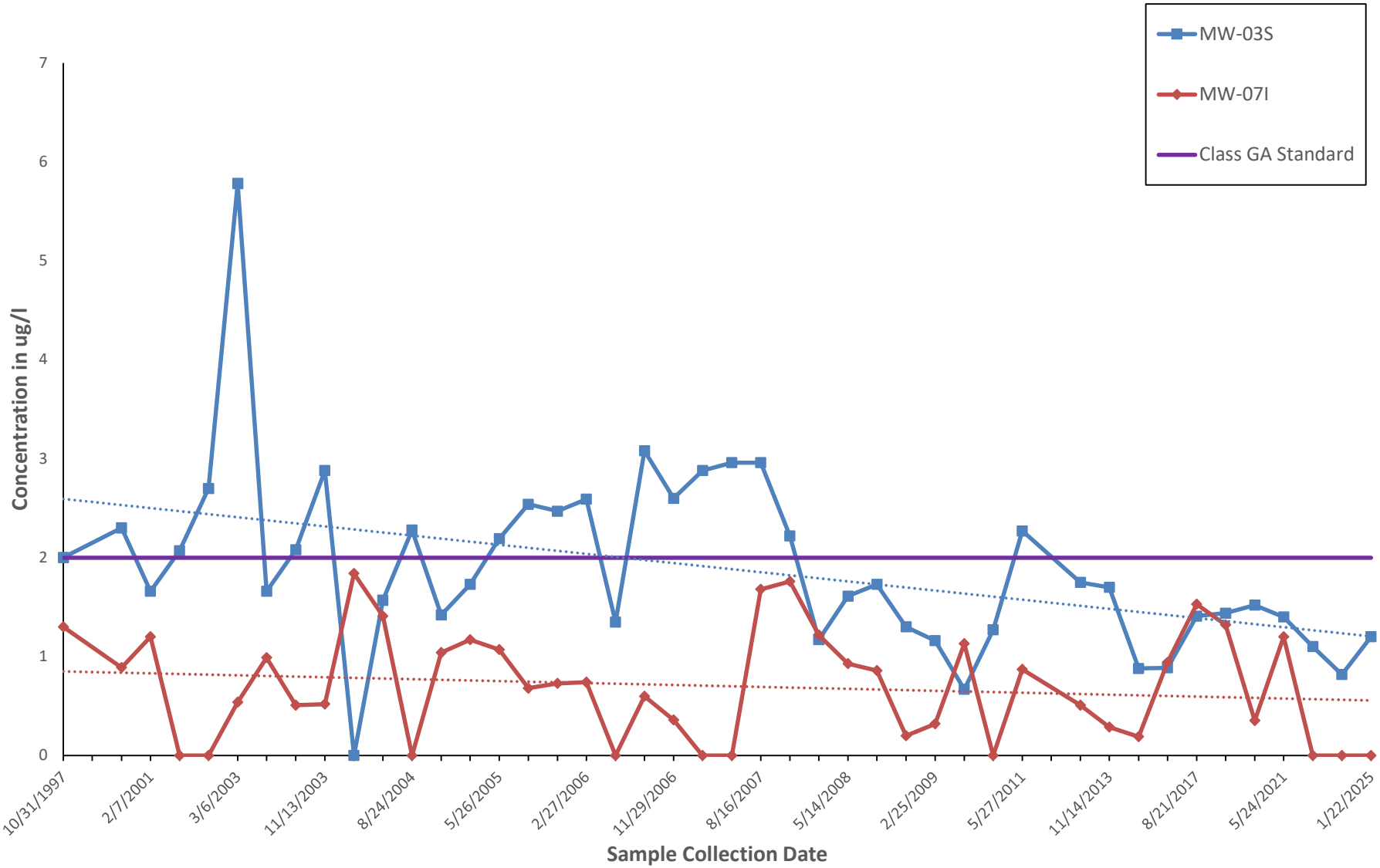
SONIA ROAD LANDFILL

HISTORICAL SUM OF IRON AND MANGANESE DATA FOR MONITORING WELL CLUSTER 2

Appendix C



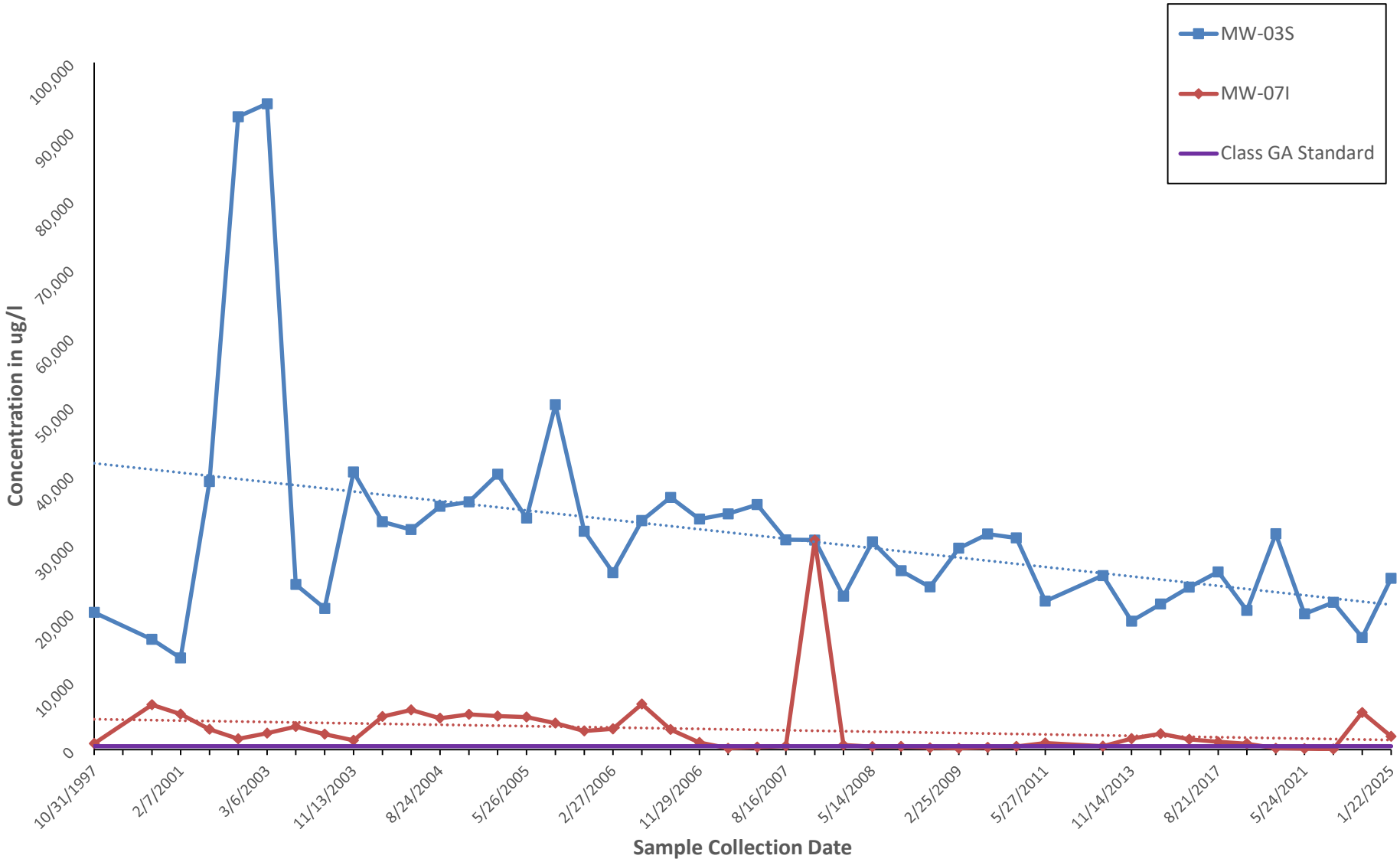
D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL SODIUM DATA FOR** **MONITORING WELL CLUSTER 2**	**Appendix C**



D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
HISTORICAL AMMONIA DATA FOR
MONITORING WELLS 3S AND 7I

Appendix C

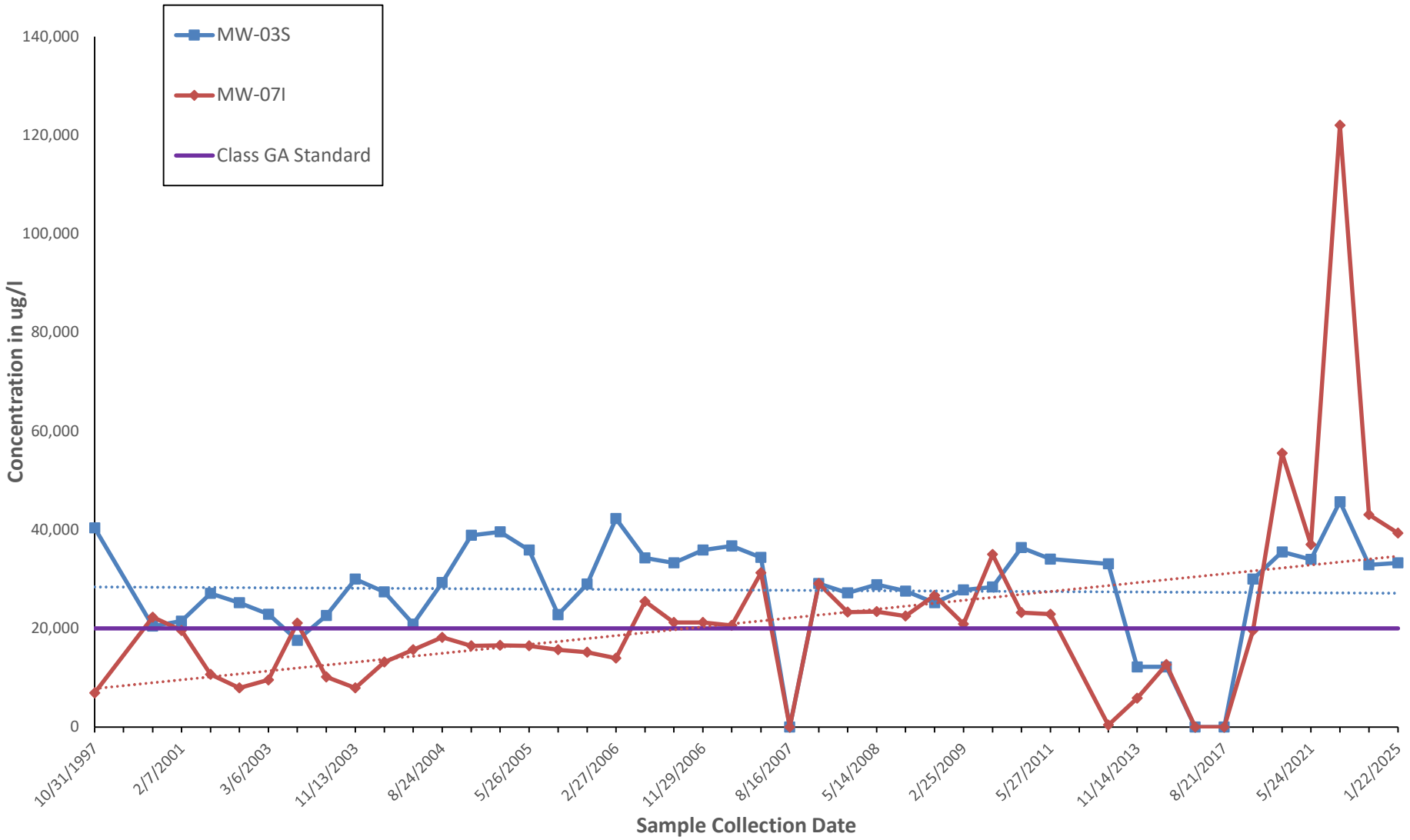


D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL

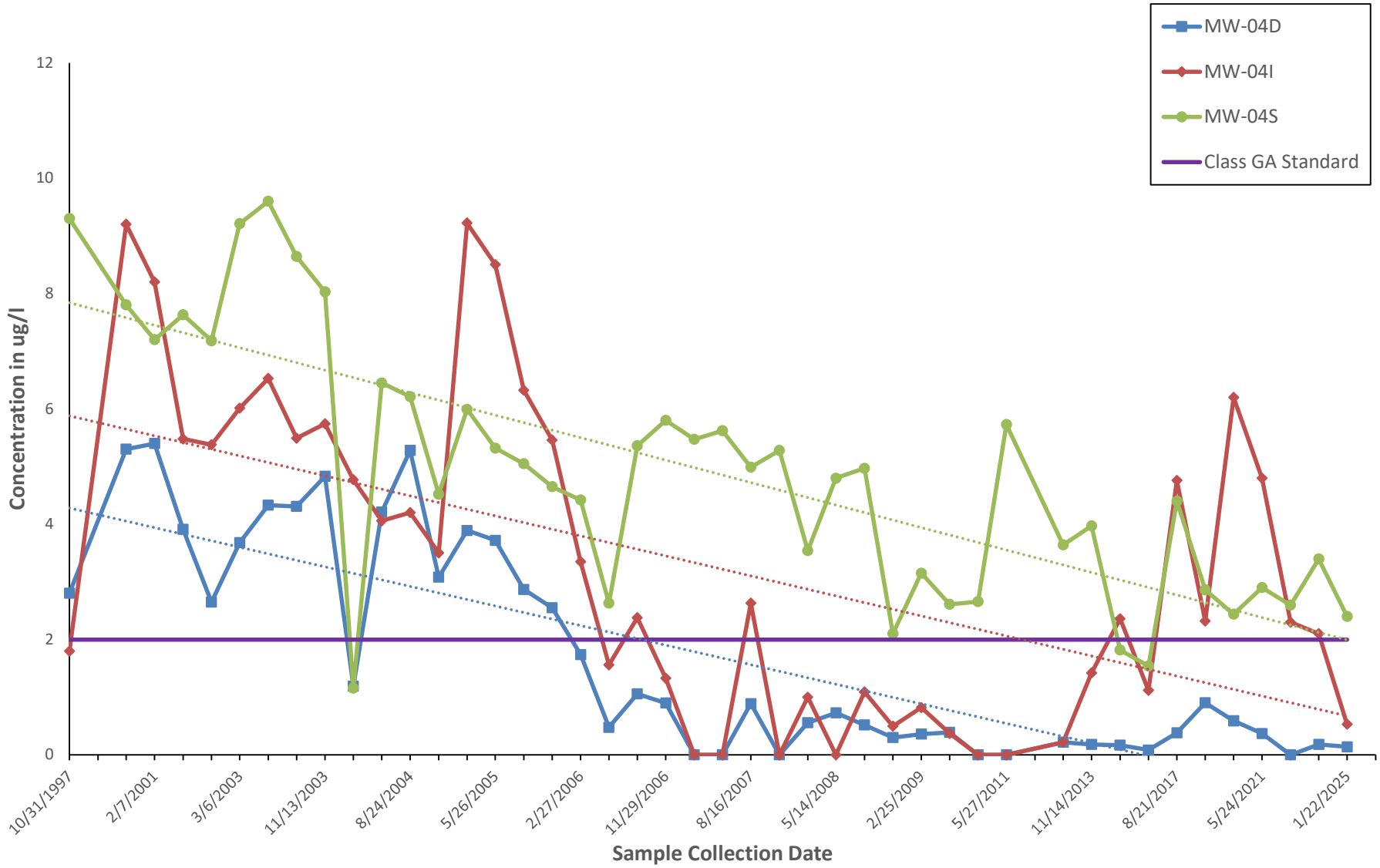
HISTORICAL SUM OF IRON AND MANGANESE DATA FOR MONITORING WELLS 3S AND 7I

Appendix C

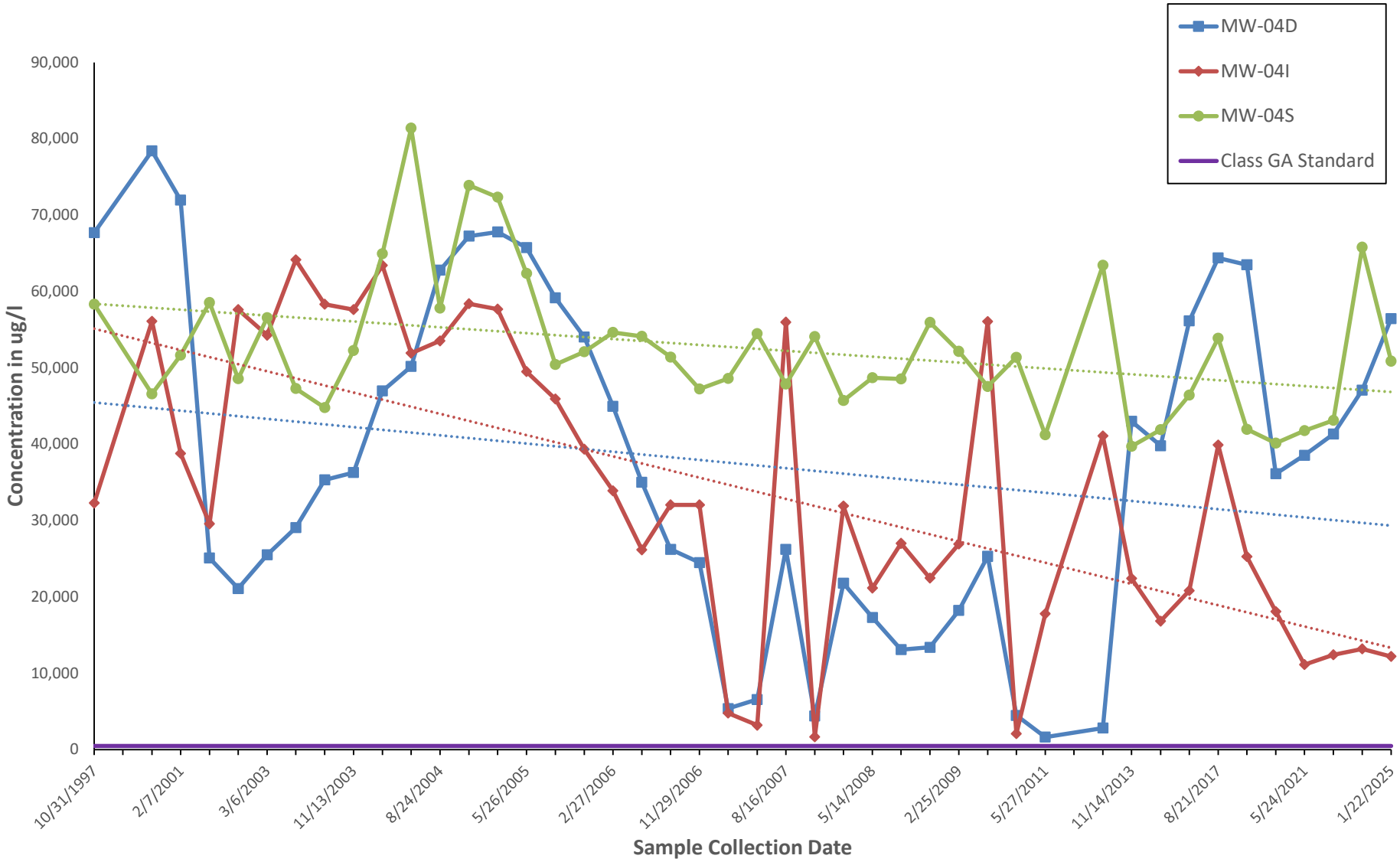


D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL SODIUM DATA FOR** **MONITORING WELLS 3S AND 7I**	**Appendix C**

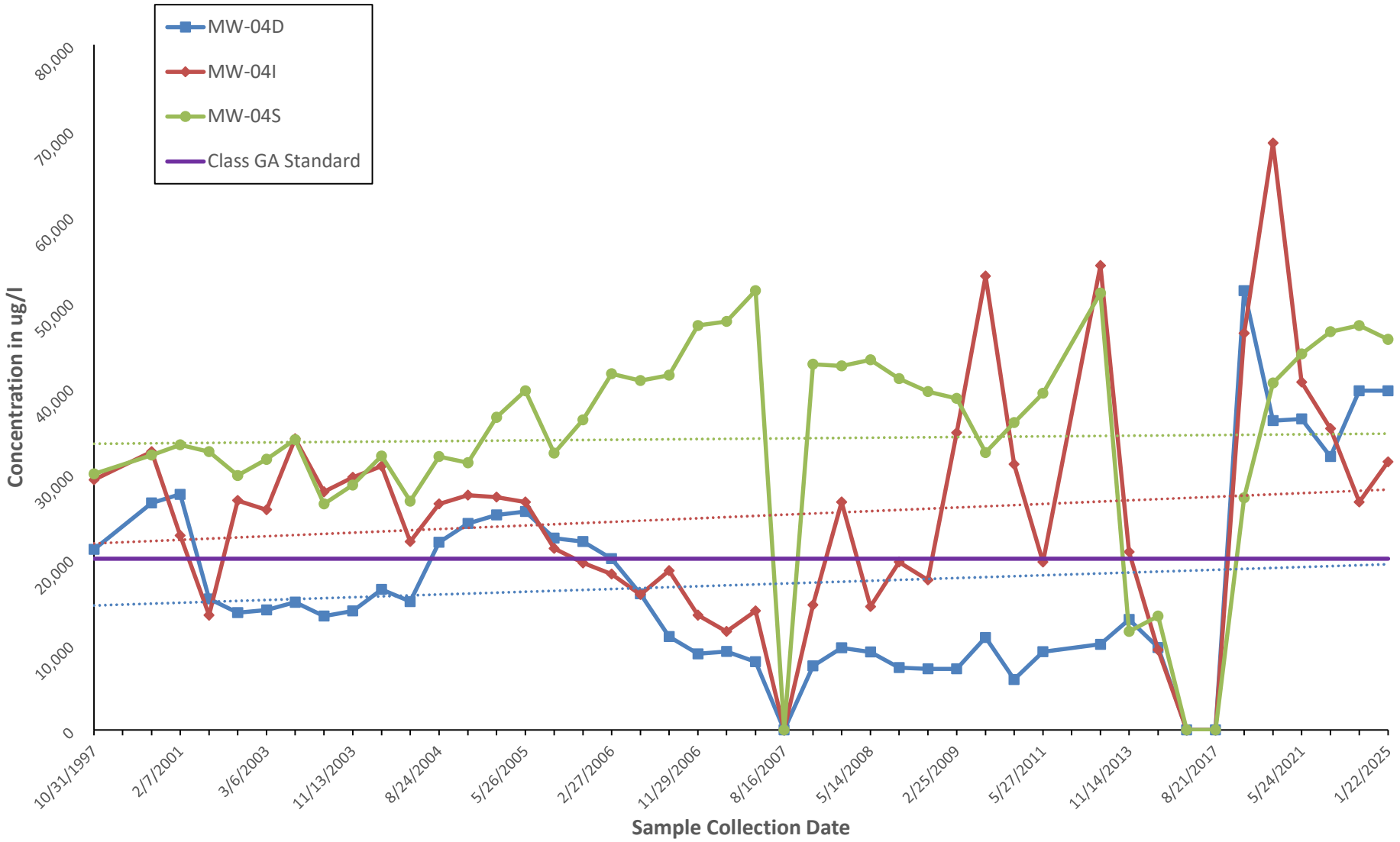
7/8/2025



D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL AMMONIA DATA FOR** **MONITORING WELL CLUSTER 4**	**Appendix C**

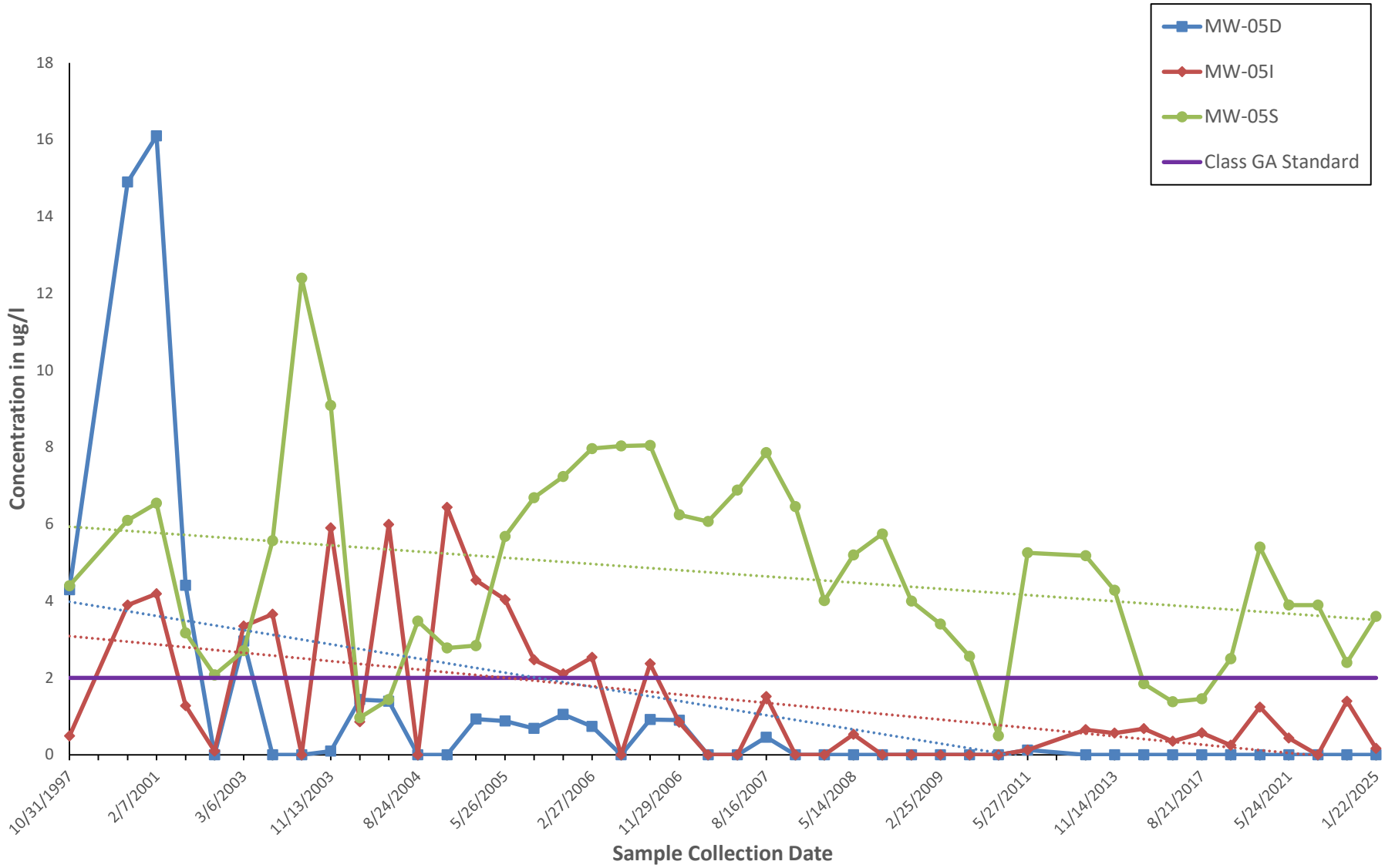


D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL SUM OF IRON AND MANGANESE DATA FOR MONITORING WELL CLUSTER 4**	**Appendix C**



D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL SODIUM DATA FOR** **MONITORING WELL CLUSTER 4**	**Appendix C**

7/8/2025

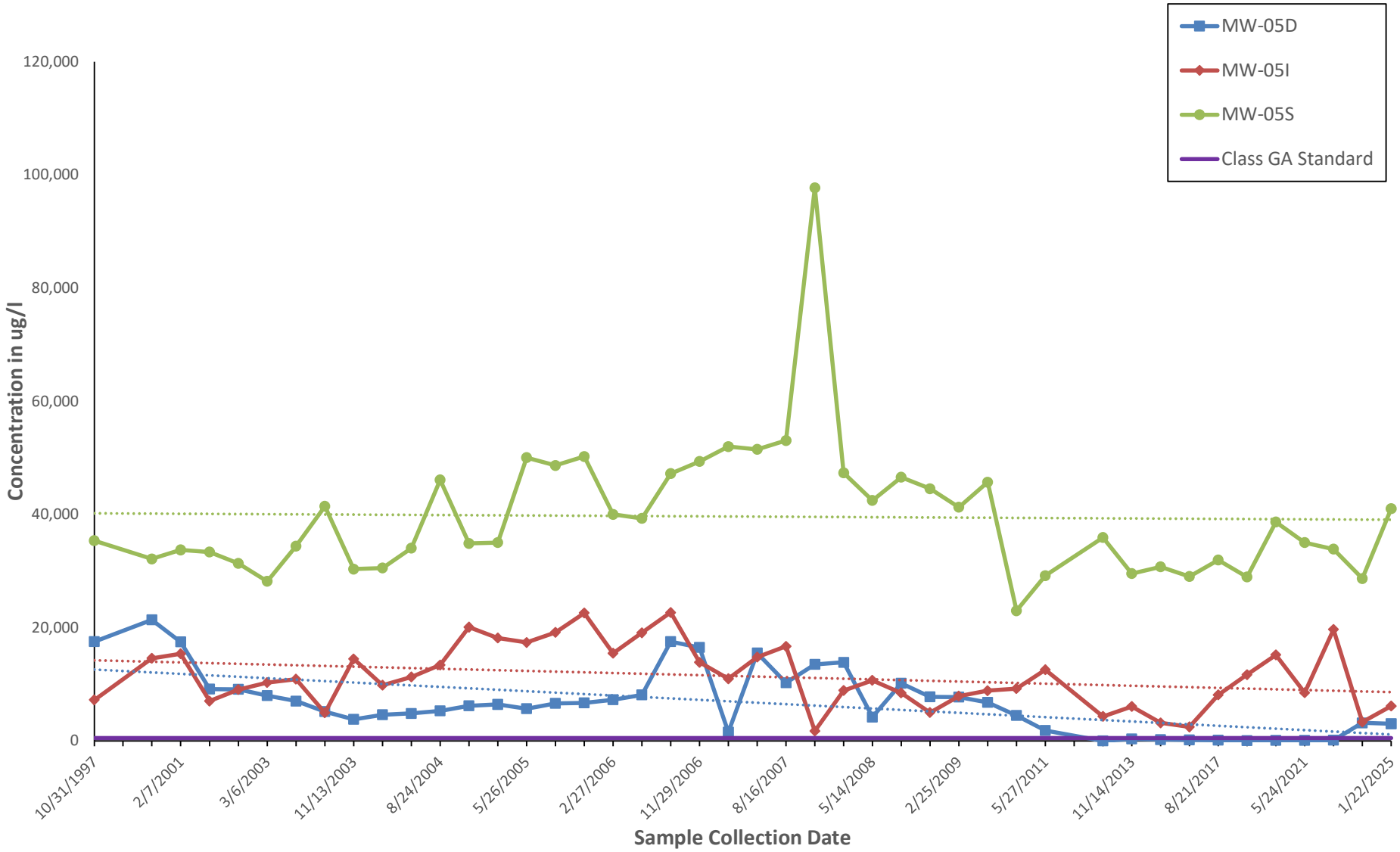


D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
HISTORICAL AMMONIA DATA FOR
MONITORING WELL CLUSTER 5

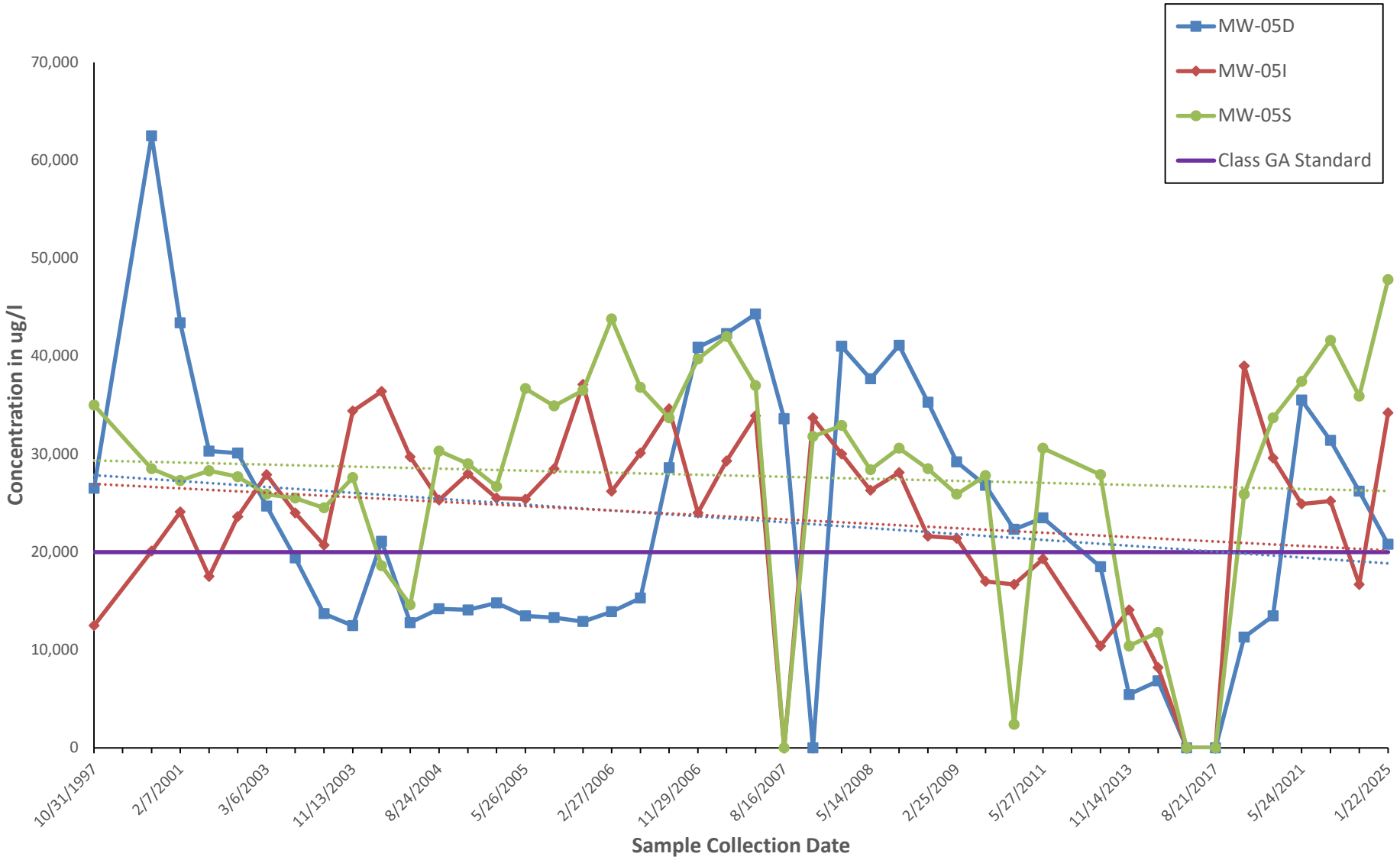
Appendix C

7/8/2025

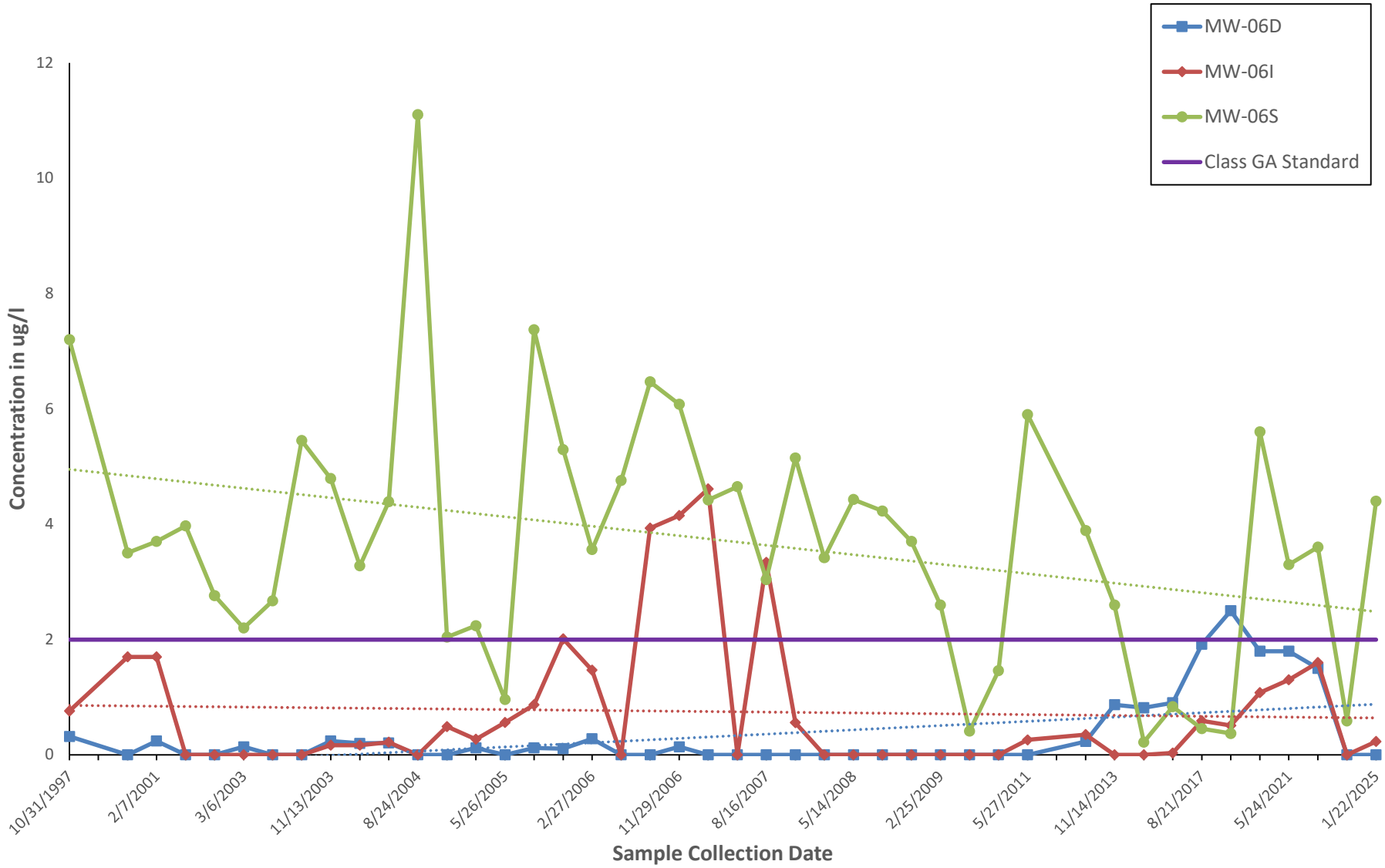


D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL SUM OF IRON AND MANGANESE DATA FOR MONITORING WELL CLUSTER 5**	**Appendix C**

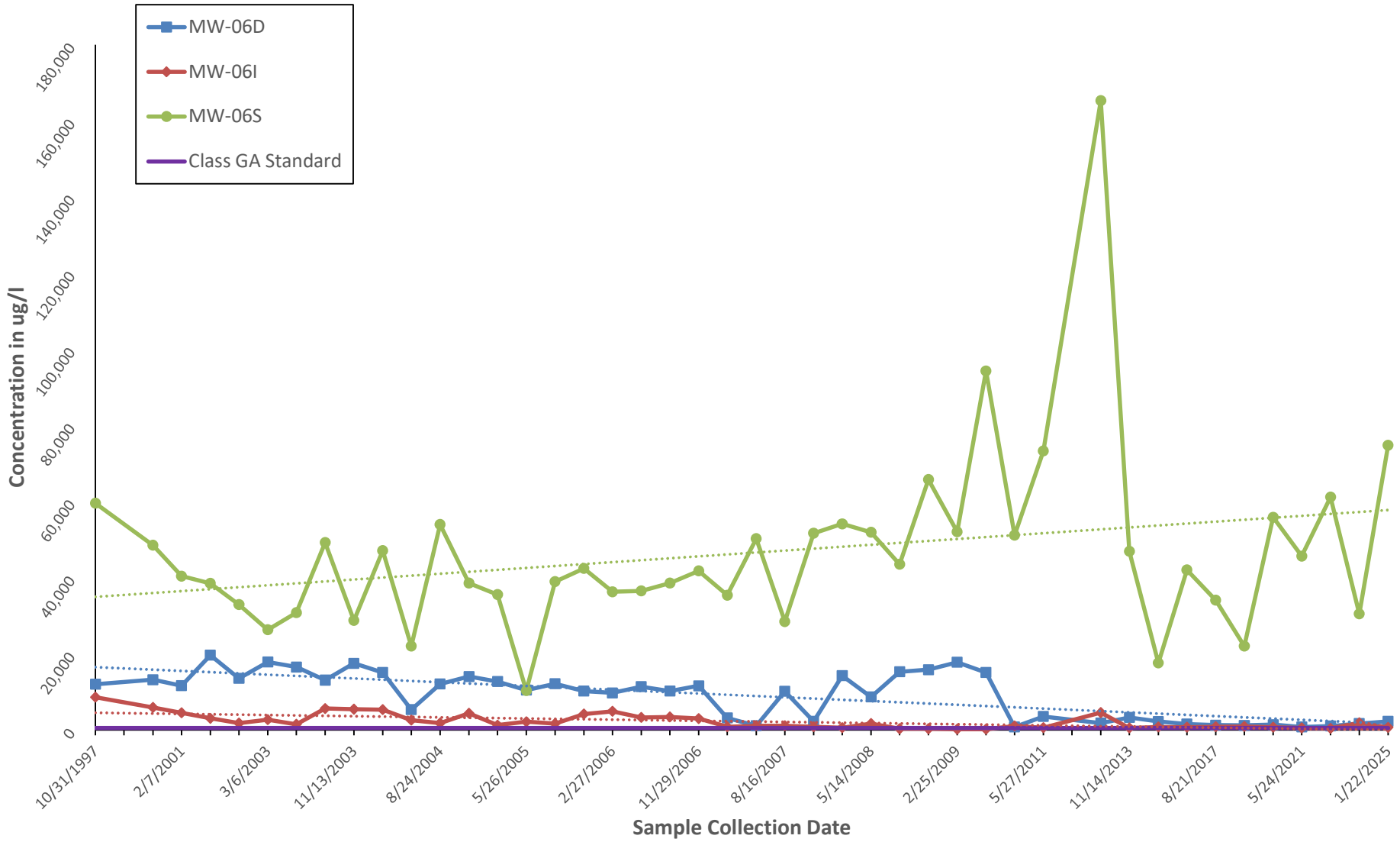
7/8/2025



D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL SODIUM DATA FOR** **MONITORING WELL CLUSTER 5**	**Appendix C**



D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL AMMONIA DATA FOR** **MONITORING WELL CLUSTER 6**	**Appendix C**

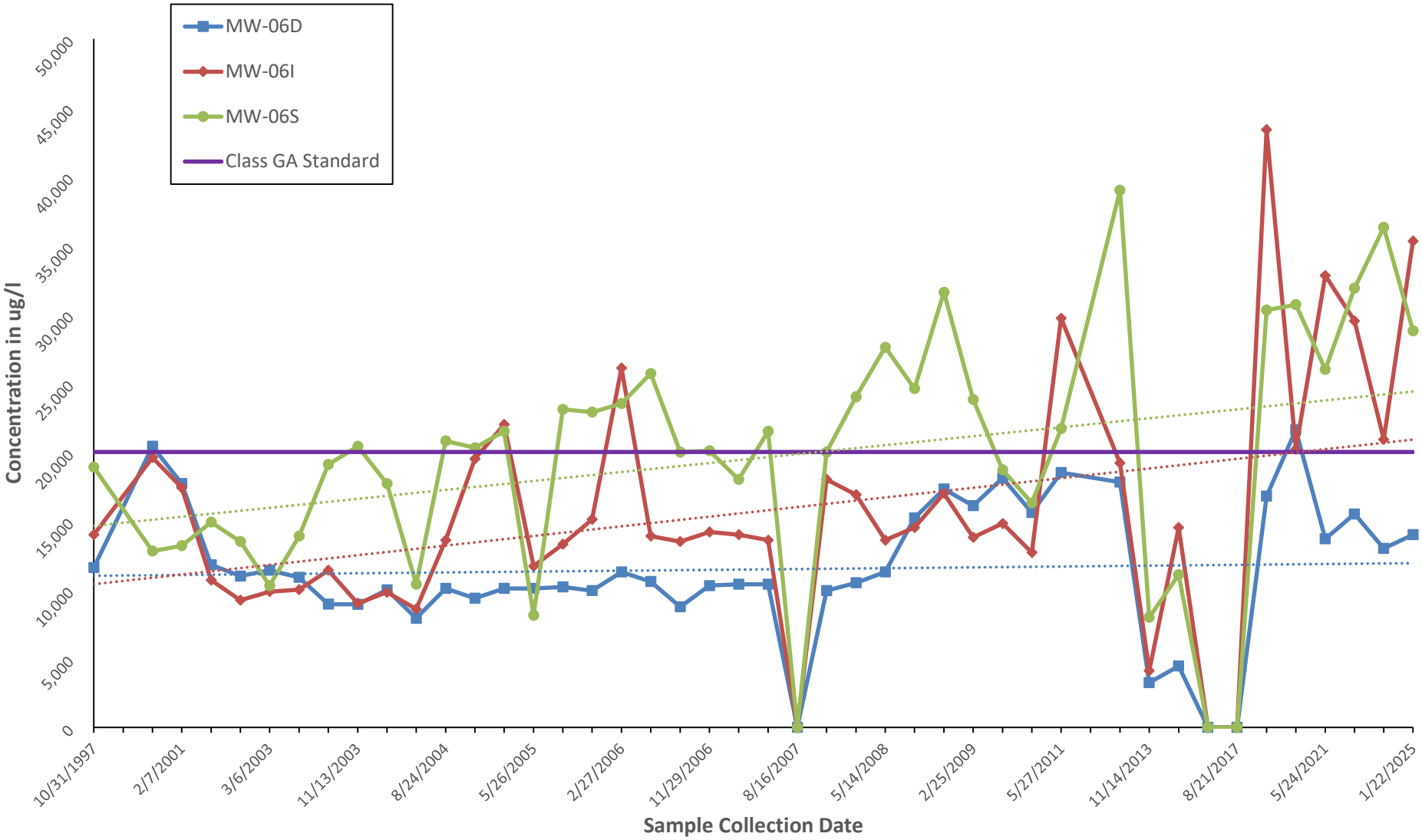


D&B ENGINEERS AND ARCHITECTS

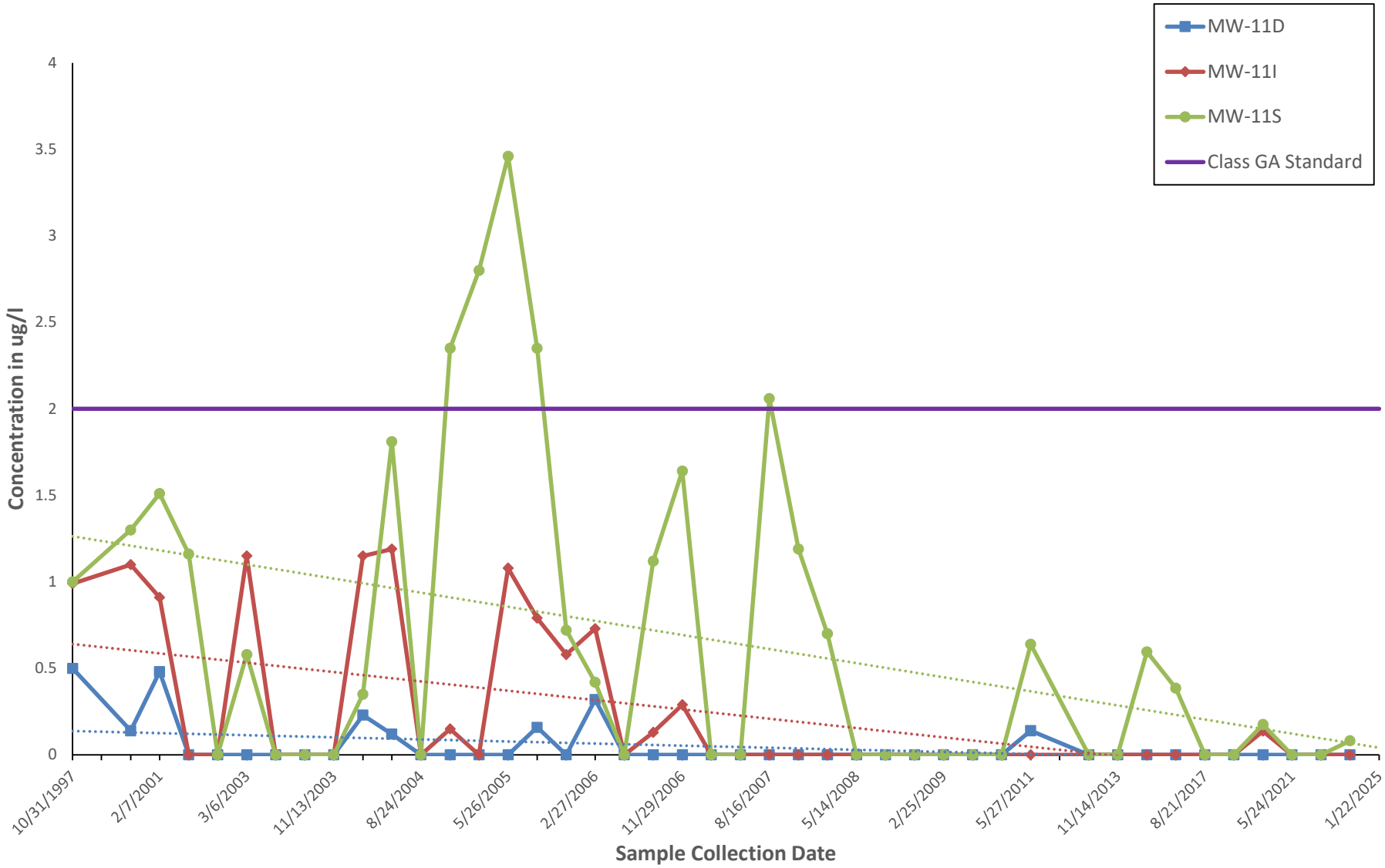
SONIA ROAD LANDFILL

HISTORICAL SUM OF IRON AND MANGANESE DATA FOR MONITORING WELL CLUSTER 6

Appendix C

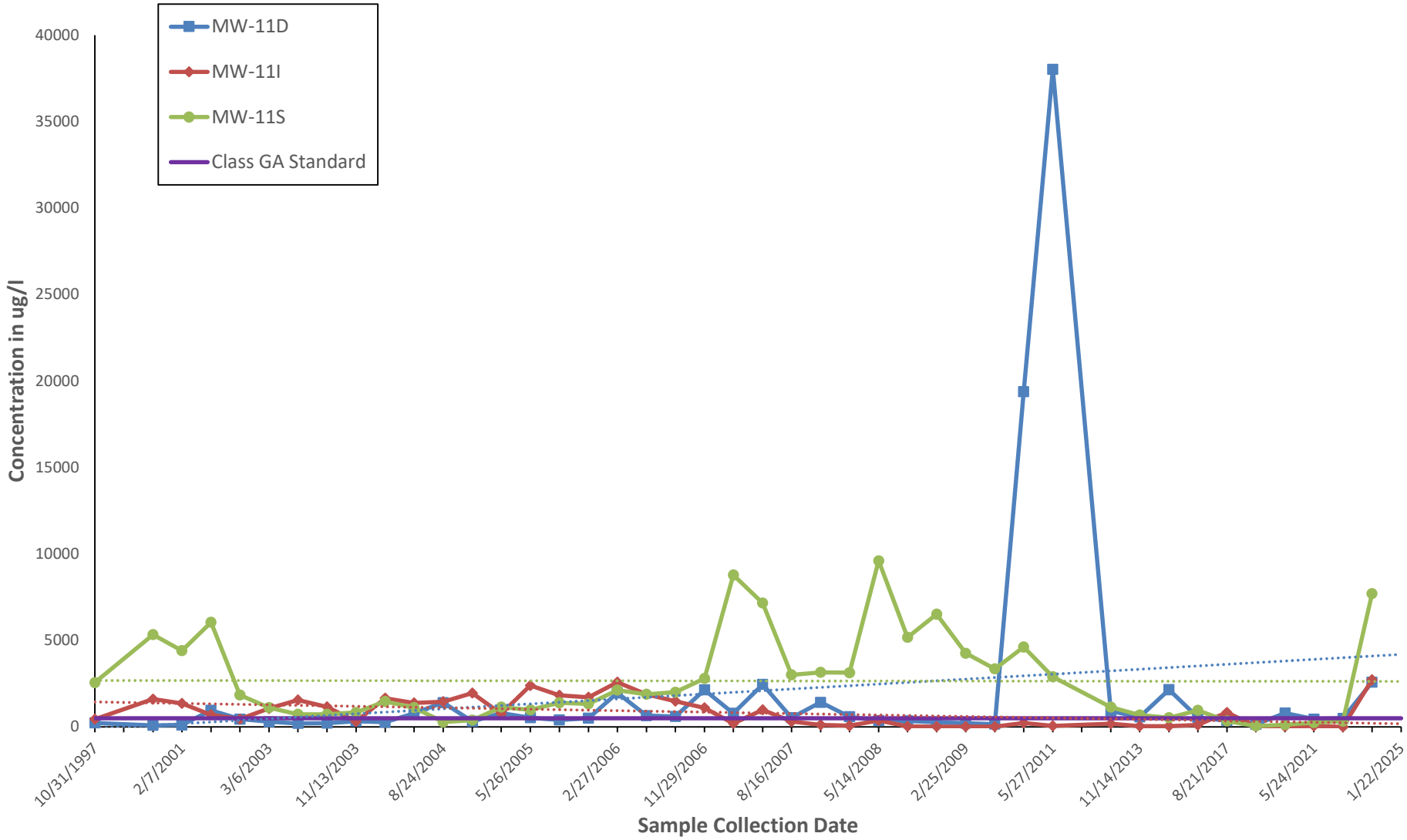


D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL SODIUM DATA FOR** **MONITORING WELL CLUSTER 6**	**Appendix C**



D&B ENGINEERS AND ARCHITECTS	**SONIA ROAD LANDFILL** **HISTORICAL AMMONIA DATA FOR** **MONITORING WELL CLUSTER 11**	**Appendix C**

7/8/2025

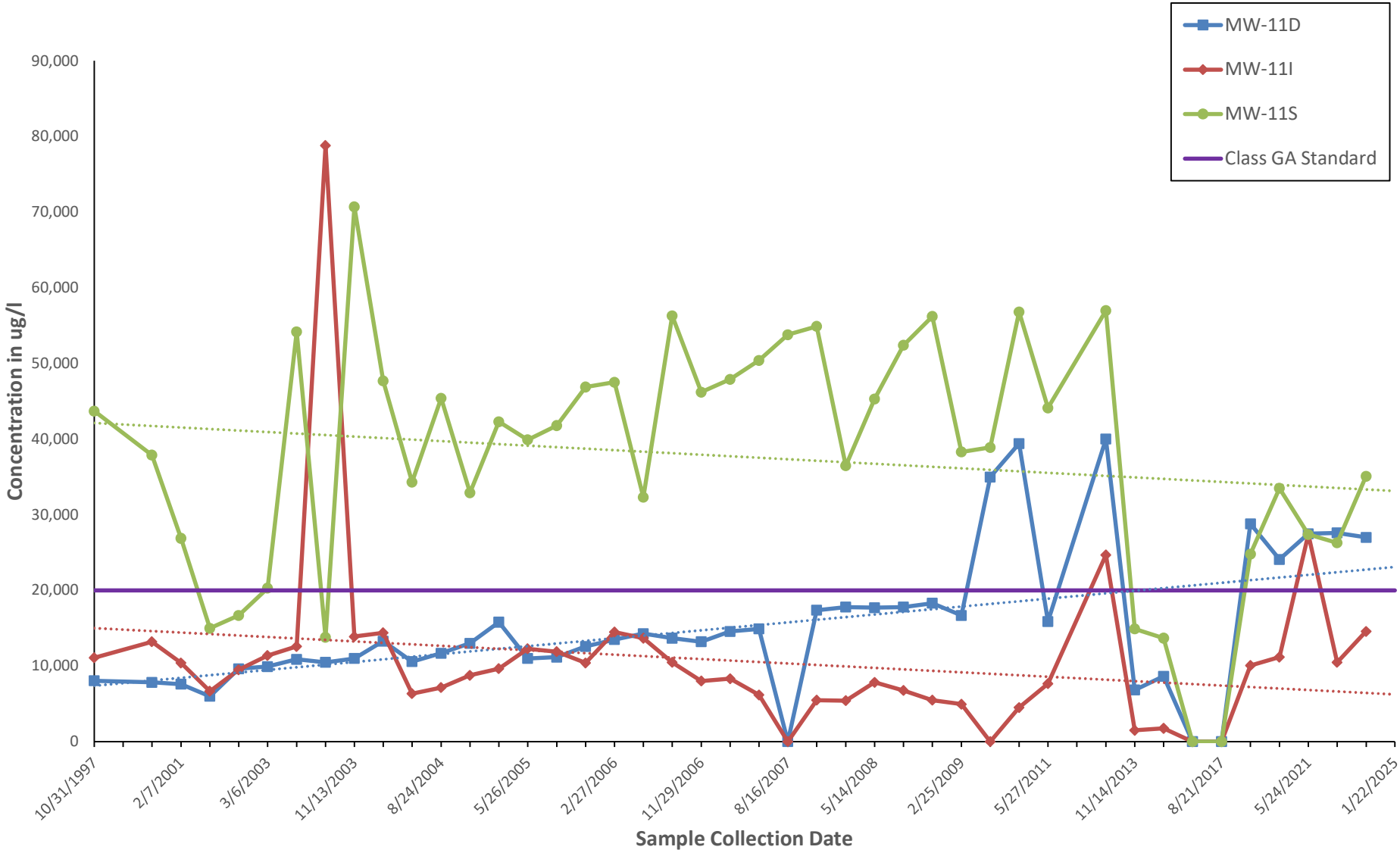


D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL

HISTORICAL SUM OF IRON AND MANGANESE DATA FOR MONITORING WELL CLUSTER 11

Appendix C

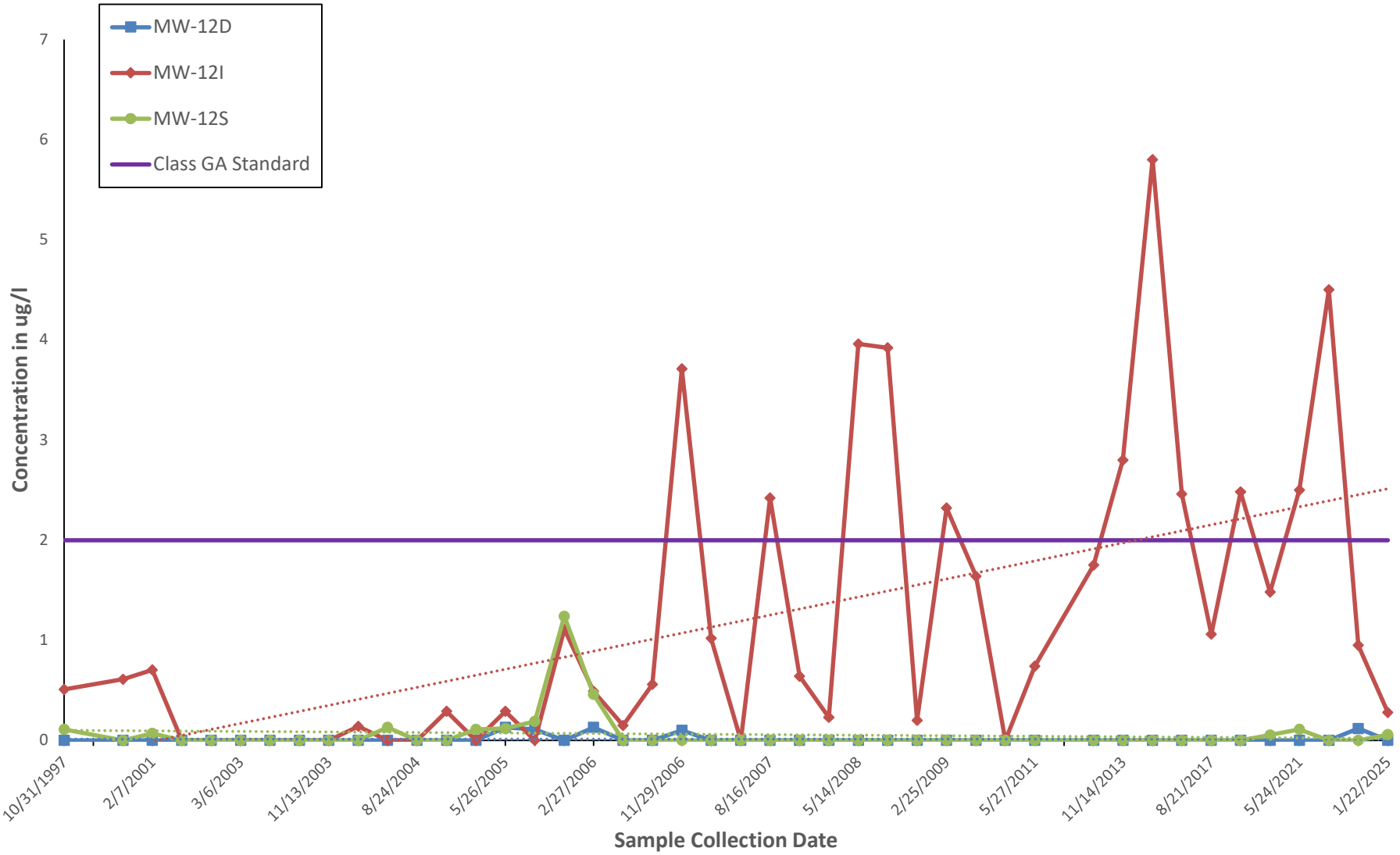


D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
HISTORICAL SODIUM DATA FOR
MONITORING WELL CLUSTER 11

Appendix C

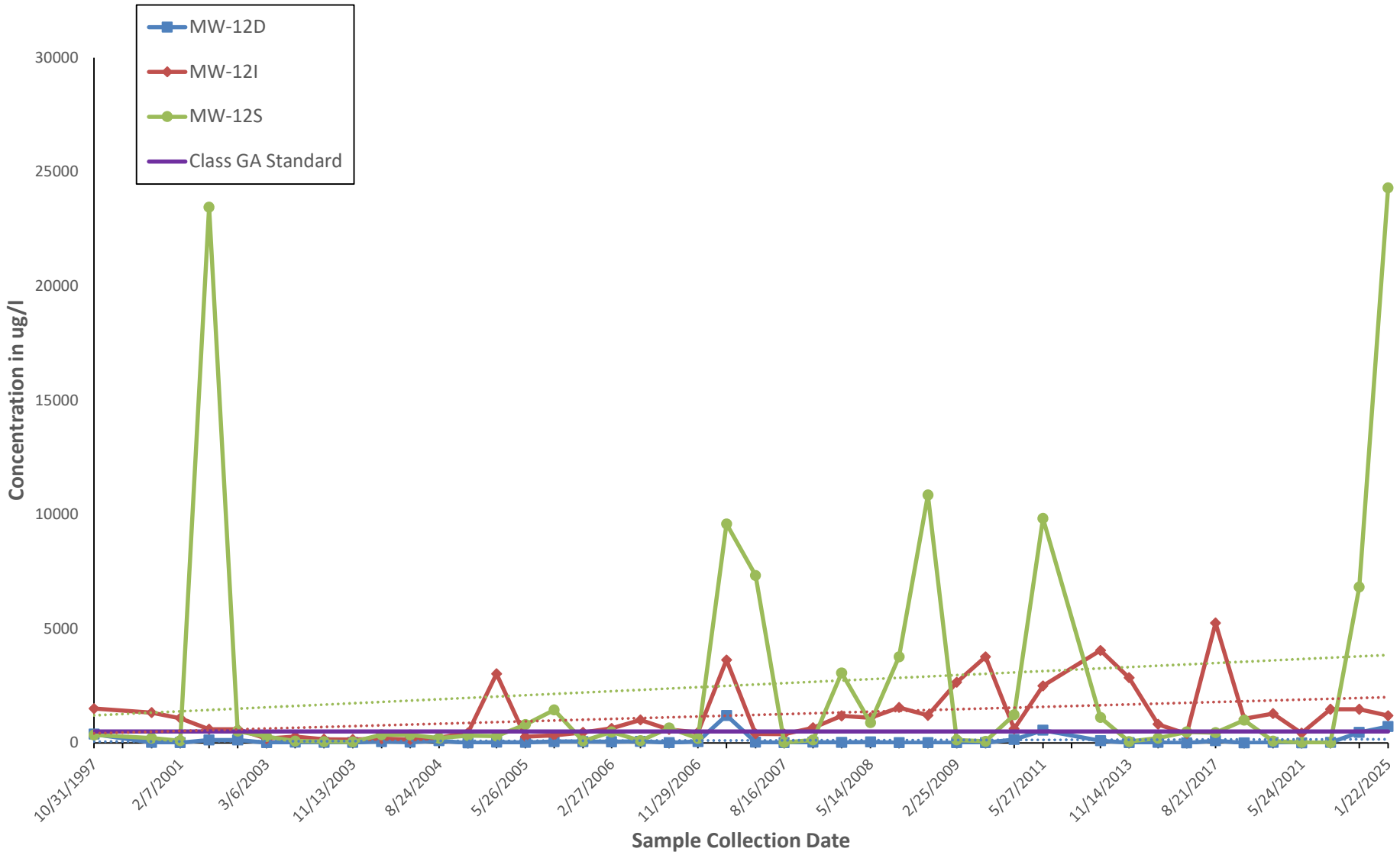
7/8/2025



D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
HISTORICAL AMMONIA DATA FOR
MONITORING WELL CLUSTER 12

Appendix C



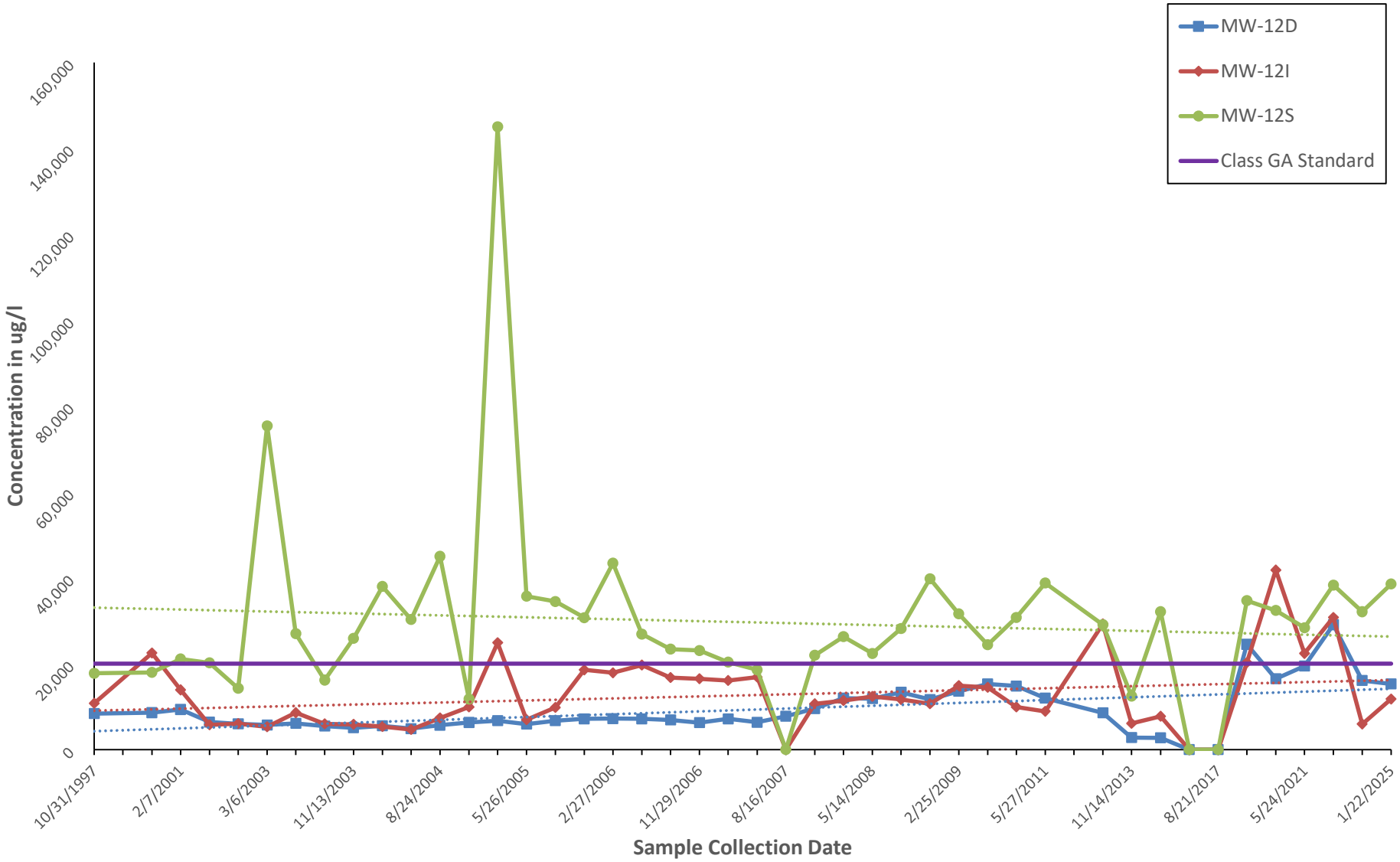
D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL

HISTORICAL SUM OF IRON AND MANGANESE DATA FOR MONITORING WELL CLUSTER 12

Appendix C

7/8/2025



D&B ENGINEERS AND ARCHITECTS

SONIA ROAD LANDFILL
HISTORICAL SODIUM DATA FOR
MONITORING WELL CLUSTER 12

Appendix C

7/8/2025

APPENDIX D

DATA VALIDATION FORMS

DATA VALIDATION CHECKLIST

Project Name:	Sonia Road Landfill
Project Number:	250036
Sample Date(s):	January 21-24, 2025
Sample Team:	Maxim Safronov
Matrix/Number of Samples:	Water/ 19 Field Duplicates/ 1 Trip Blanks / 4 Field Blanks/ 1
Analyzing Laboratory:	Pace Analytical, Melville, NY and phenolics by Westborough, MA
Analyses:	Volatile Organic Compounds (VOCs): by EPA Method 8260C Metals: by EPA Method 6010D and mercury by EPA Method 7470A General Chemistry: Hexavalent Chromium (SM22 3500-CR), Cyanide by EPA Method EPA 9014, Hardness (SM22 2340B), Bromide, Chloride & Sulfate (EPA 300.0), Total Dissolved Solids (SM22 2540C), Alkalinity (SM22 2320B), Ammonia (SM22 4500), Nitrate (EPA 353.2), Total Kjeldahl Nitrogen (EPA 351.2), Chemical Oxygen Demand (COD) (EPA 410.4), Total Organic Carbon (EPA 9060A), Biochemical Oxygen Demand (BOD) (SM22 5210B), Color (SM22 2120B), and Phenolics (EPA 420.1)
Laboratory Report No:	70333947 (L2503755, L2504039, L2504335) Date: 2/20/2025

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 10% 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 Organic Data Review, November 2020, or USEPA National

Functional Guidelines of Inorganic Data Review, November 2020, method performance criteria, and 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.

D&B ENGINEERS AND ARCHITECTS

Custody Numbers:70333947

SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Parent Sample	Analysis				
				VOC	SVOC	PCB	MET	MISC
MW-01S	70333947001	1/21/2025		X			X	X
MW-01I	70333947002	1/21/2025		X			X	X
MW-01D	70333947003	1/21/2025		X			X	X
MW-02D	70333947004	1/21/2025		X			X	X
MW-02I	70333947005	1/21/2025		X			X	X
TRIP-BLANK	70333947006	1/21/2025		X				
MW-07I	70333947007	1/22/2025		X			X	X
MW-06D	70333947008	1/22/2025		X			X	X
MW-06I	70333947009	1/22/2025		X			X	X
MW-06S	70333947010	1/22/2025		X			X	X
MW-12S	70333947011	1/22/2025		X			X	X
TRIP-BLANK	70333947012	1/22/2025		X				
MW-12I	70333947013	1/23/2025		X			X	X
MW-12D	70333947014	1/23/2025		X			X	X
MW-03S	70333947015	1/23/2025		X			X	X
MW-05S	70333947016	1/23/2025		X			X	X
MW-05I	70333947017	1/23/2025		X			X	X
TRIP-BLANK	70333947018	1/23/2025		X				
MW-05D	70333947019	1/24/2025		X			X	X
FIELD BLANK	70333947020	1/24/2025		X			X	X
MW-04I	70333947021	1/24/2025		X			X	X
MW-04D	70333947022	1/24/2025		X			X	X
MW-04S	70333947023	1/24/2025		X			X	X
BLIND DUPLICATE	70333947024	1/24/2025	MW-04I	X			X	X
TRIP BLANK	70333947025	1/24/2025		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 (LCS) & LCS Duplicate %R and RPD		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		X	

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

Comments:
The performance was acceptable, except the following:

2B. Acetone was detected in TRIP BLANK 1/21/25, TRIP BLANK 1/22/25, and FIELD BLANK and methylene chloride in TRIP BLANL 1/24/25. Acetone was qualified as non-detect (UB) in samples MW-01S, MW-12S, MW-12I, MW-05S, MW-05I, and MW-04S.

3-4. The %R was below the QC limit for vinyl acetate in the MS and MSD associated with samples BLIND DUPLICATE, TRIP BLANK 1/24/2025, and MW-12I and was qualified as an estimated limit (UJ).

5. The RPD was above the QC limit for iodomethane in the MS/MSD associated with samples MW-01I, MW-02D, MW-02I, and TRIP BLANK 1/21/2025. It was not detected in the associated samples therefore qualification of the data was not necessary.

6. The %R was above the QC limit for vinyl acetate in the LCS Duplicate associated with samples BLIND DUPLICATE, TRIP BLANK 1/24/2025, and MW-12I. It was not detected in the associated samples therefore qualification of the data was not necessary.

11. The %Ds were above the QC limits for acetone, 2-butanone (MEK), 2-hexanone, and vinyl acetate associated with samples MW-01I, MW-02D, MW-02I, and TRIP BLANK 1/21/25; and vinyl acetate associated with samples TRIP BLANK 1/24/25, MW-12I, and BLIND DUPLICATE. They were qualified as an estimated limit (UJ) in associated samples.

INORGANIC ANALYSES
METALS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation, method 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	X		
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X		X	
9. Post digestive spike sample %R		X		X	
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD		X		X	

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

Comments:
Performance was acceptable, except the following:

2A. Potassium, silver, and mercury were detected in the initial calibration blank. No qualification of the data was necessary.

5. The %R was below the QC limit for the CRDL standard for iron and was qualified as estimated (J) 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. Initial & Continuing calibration verification %R		X		X	
4. CRQL standard %R		X		X	
5. Laboratory spike %R		X		X	
6. Laboratory duplicate RPD		X		X	
7. Matrix spike and matrix spike duplicate %R		X	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, except the following:

1. The following exceeded the holding time requirements and were qualified as an estimated limit (UJ): hexavalent chromium in samples BLIND DUPLICATE, MW-03S, MW-05S, MW-12D, and MW-12I.

2. Chloride, phenolics, and TOC were detected in the lab blank. Phenolic was qualified as non-detect (UB) in sample MW-06D.

7. The %Rs were above the QC limits in the MS for sulfate associated with samples MW-01S, MW-01I, MW-01D, MW-02D, MW-02I, MW-07I, MW-06D, MW-06I, MW-06S, and MW-12S; and total kjeldahl,nitrogen, associated with samples MW-02D, MW-02I, MW-07I, MW-06D, MW-06I, and MW-06S. The following were detected and were qualified as estimated (J): sulfate in samples MW-01S, MW-01I, MW-01D, MW-02D, MW-02I, MW-07I, MW-06D, MW-06I, and MW-12S; and total kjeldahl,nitrogen in samples MW-06I and MW-06S.

   The %Rs were below the QC limits in the MS for and were qualified as estimated (J/UJ): nitrate in samples MW-01S, MW-01I, MW-01D, MW-02D, MW-02I, MW-06D, MW-06I, MW-06S, MW-12S, MW-05D, FIELD BLANK, MW-04I, MW-04D, MW-04S, and BLIND DUPLICATE.

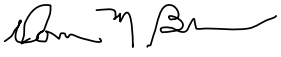
8. Sample MW-04I was field duplicated and labeled as BLIND DUPLICATE. The RPD was above QC limits and qualified as estimated (J/UJ) in samples MW-04I and BLIND DUPLICATE for chloride and total kjeldahl nitrogen.

D&B ENGINEERS AND ARCHITECTS

DATA VALIDATION AND QUALIFICATION SUMMARY

Laboratory Numbers:70333947

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
MW-01S, MW-12S, MW-12I, MW-05S, MW-05I, and MW-04S	Acetone	UB	Detected in TRIP BLANK 1/21/25, TRIP BLANK 1/22/25, and FIELD BLANK
BLIND DUPLICATE, TRIP BLANK 1/24/2025, and MW-12I	Vinyl acetate	UJ	The %R was below the QC limit in the MS and MSD
MW-01I, MW-02D, MW-02I, and TRIP BLANK 1/21/25	Acetone, 2-butanone (MEK), 2-hexanone, and vinyl acetate	UJ	The %Ds were above the QC limits
TRIP BLANK 1/24/25, MW-12I, and BLIND DUPLICATE	Vinyl acetate		
Metals			
All samples	Iron	J	The %R was below the QC limit for the CRDL standard
General Chemistry			
BLIND DUPLICATE, MW-03S, MW-05S, MW-12D, and MW-12I	Hexavalent chromium	UJ	Exceeded the holding time requirements
MW-06D	Phenolic	UB	Detected in the lab blank
MW-01S, MW-01I, MW-01D, MW-02D, MW-02I, MW-07I, MW-06D, MW-06I, and MW-12S	Sulfate	J	The %Rs were above the QC limits in the MS
MW-06I and MW-06S	Total kjeldahl,nitrogen		
MW-01S, MW-01I, MW-01D, MW-02D, MW-02I, MW-06D, MW-06I, MW-06S, MW-12S, MW-05D, FIELD BLANK, MW-04I, MW-04D, MW-04S, and BLIND DUPLICATE	Nitrate	J/UJ	The %Rs were below the QC limits in the MS
MW-04I and BLIND DUPLICATE	Chloride and total kjeldahl nitrogen	J/UJ	Field duplicated results RPD was above QC limits

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 6/26/2025
VALIDATION PERFORMED BY SIGNATURE:	

APPENDIX E

MONTHLY LANDFILL GAS MONITORING REPORT

D&B ENGINEERS AND ARCHITECTS

330 Crossways Park Drive, Woodbury, New York 11797
516-364-9890 • 718-460-3634 • www.db-eng.com

Principals

Steven A. Fangmann, P.E., BCEE
President & Chairman

William D. Merklin, P.E.
Executive Vice President

Robert L. Raab, P.E., BCEE, CCM
Senior Vice President

Joseph H. Marturano
Senior Vice President

April 19, 2024

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

Re: Sonia Road Landfill
April 2024 Landfill Gas Monitoring Results
D&B No. 5282-04

Dear Mr. Varrichio:

On April 18, 2024, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH4) and 35% carbon dioxide (CO2) with the balance nitrogen (N2) gas, and 4% O2 with the balance N2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for May 17, 2024.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3058.

Very truly yours,

Keith Robins

Keith Robins, P.G.
Associate

KR/DSt/kb
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
Thomas P. Fox (D&B)
♦5282\KR041924AV-Ltr_April

TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	4/18/2024	12:00 PM	6.4	4.9	11.5	8.6	11.6	12.4	29.96	-17.77	3.78
GM-01	OK	4/18/2024	11:54 AM	0.0		0.6		20.0		29.96	-0.01	
GM-02	OK	4/18/2024	12:03 PM	0.0		1.6		17.7		29.96	-0.03	
GM-03	OK	4/18/2024	12:06 PM	0.0		0.1		20.7		29.96	-0.05	
GM-04	OK	4/18/2024	12:20 PM	0.0		0.2		20.7		29.96	-0.03	
GM-05	OK	4/18/2024	11:15 AM	0.0		0.1		20.8		29.96	-0.59	
GM-06	OK	4/18/2024	11:18 AM	0.0		0.6		20.4		29.96	-0.04	
GM-07	OK	4/18/2024	11:21 AM	0.0		1.0		19.8		29.96	-0.08	
GM-08	OK	4/18/2024	11:24 AM	0.0		1.0		19.8		29.96	-0.07	
GM-09	OK	4/18/2024	11:27 AM	0.0		1.3		19.6		29.96	-0.06	
GM-10	OK	4/18/2024	11:30 AM	0.0		0.1		20.0		29.96	0.00	
GM-11	OK	4/18/2024	11:33 AM	0.0		1.2		19.5		29.96	-0.01	
GM-12	OK	4/18/2024	11:36 AM	0.0		0.1		20.5		29.96	-0.05	
GM-13	OK	4/18/2024	11:39 AM	0.0		0.5		20.1		29.96	-0.03	
GM-14	OK	4/18/2024	11:42 AM	0.0		0.7		19.9		29.96	-0.03	
GM-15	OK	4/18/2024	11:45 AM	0.0		0.6		20.1		29.96	-0.03	
GM-16	OK	4/18/2024	11:48 AM	0.0		1.0		19.7		29.96	-0.07	
GM-17	OK	4/18/2024	11:51 AM	0.0		0.5		20.3		29.96	-0.04	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

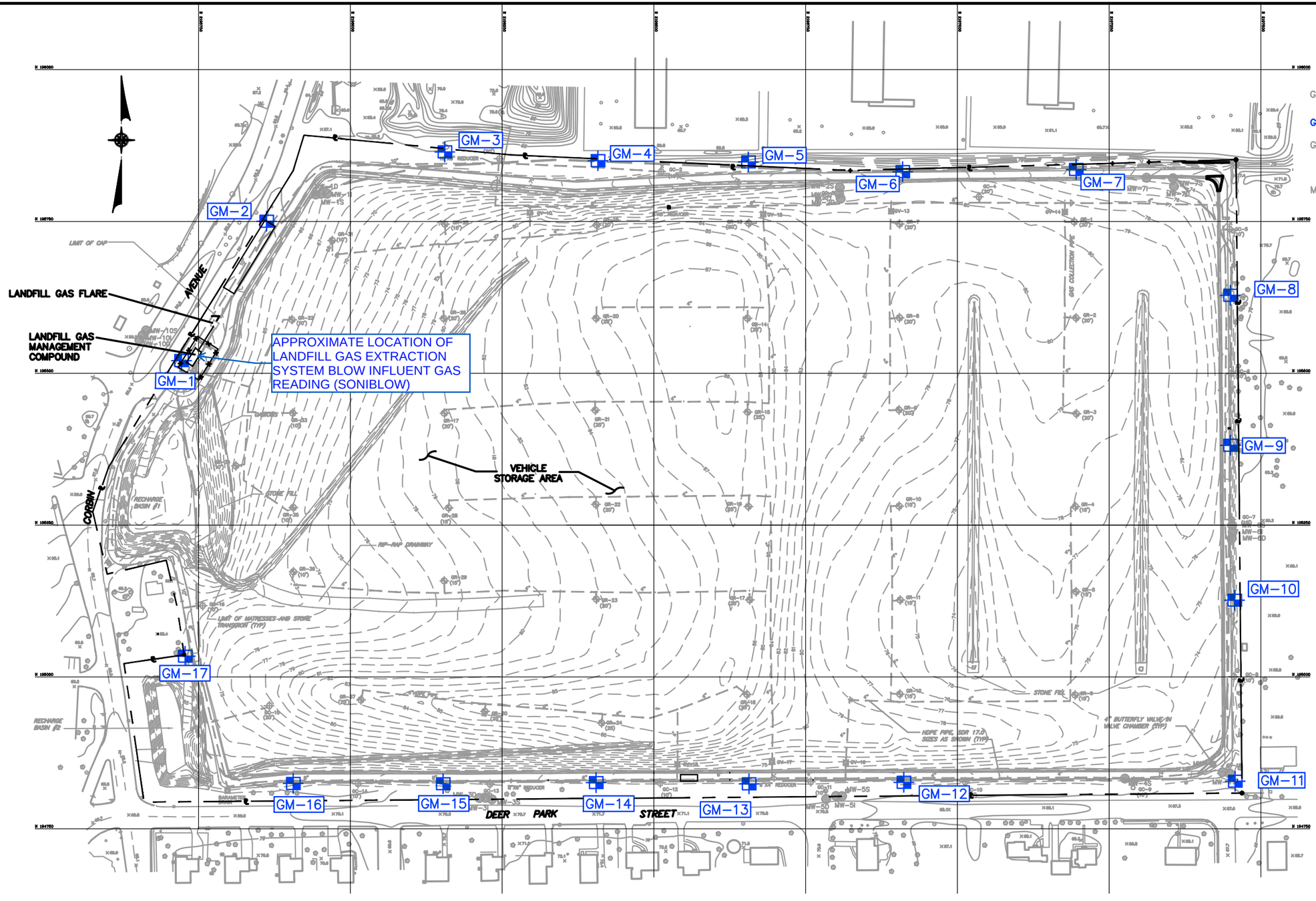
Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NS - Not Sampled

Blower System On 4/18/2024

Weather - 4/18/2024: 45°F, Rain



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
- GM-12 — EXISTING LANDFILL GAS MONITORING WELL
- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
- EXISTING LANDFILL GAS FLARE
- MW-5D — EXISTING GROUND WATER MONITORING WELL (S=SHALLOW, I=INTERMEDIATE, D=DEEP)

NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

2.) EXISTING TOPOGRAPHY IS BASED UPON AS-BUILT DATA FURNISHED BY THE ISLIP RESOURSE RECOVERY AGENCY FOR CONTRACT NO. IRRA I-99, SONIA ROAD LANDFILL SITE REMEDIATION.

D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

S:\MFrangione\Figures\PW9848-Figure B-3.dwg, 11x17, 3/9/2021 3:06:29 PM, kalesius

D&B ENGINEERS AND ARCHITECTS

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William D. Merklin, P.E., *Executive Vice President*
Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

May 21, 2024

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

Re: Sonia Road Landfill
May 2024 Landfill Gas Monitoring Results
D&B No. 5282-04

Dear Mr. Varrichio:

On May 3, 2024, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for June 14, 2024.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Principal Geologist

TPF/DS/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
•5282\TPF052124AJV-Ltr

TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	5/3/2024	11:51 am	5.4	4.6	9.5	8.0	12.7	13.1	30.11	-15.37	4.28
GM-01	OK	5/3/2024	11:48 am	0.0		0.0		20.6		30.11	0.00	
GM-02	OK	5/3/2024	11:54 am	0.0		0.0		18.3		30.11	-0.01	
GM-03	OK	5/3/2024	11:57 am	0.0		0.0		20.4		30.11	-0.02	
GM-04	OK	5/3/2024	12:00 am	0.0		0.0		21.1		30.11	0.00	
GM-05	OK	5/3/2024	11:10 am	0.0		0.0		21.3		30.11	-0.05	
GM-06	OK	5/3/2024	11:13 am	0.0		0.0		20.8		30.11	-0.01	
GM-07	OK	5/3/2024	11:16 am	0.0		0.0		21.2		30.11	-0.01	
GM-08	OK	5/3/2024	11:19 am	0.0		0.0		20.3		30.11	0.00	
GM-09	OK	5/3/2024	11:22 am	0.0		0.0		20.4		30.11	0.00	
GM-10	OK	5/3/2024	11:25 am	0.0		0.0		21.2		30.11	0.00	
GM-11	OK	5/3/2024	11:28 am	0.0		0.0		19.6		30.11	0.00	
GM-12	OK	5/3/2024	11:31 am	0.0		0.0		20.9		30.11	-0.01	
GM-13	OK	5/3/2024	11:34 am	0.0		0.0		20.5		30.11	0.00	
GM-14	OK	5/3/2024	11:37 am	0.0		0.0		20.2		30.11	0.00	
GM-15	OK	5/3/2024	11:39 am	0.0		0.0		20.4		30.11	-0.01	
GM-16	OK	5/3/2024	11:41 am	0.0		0.0		20.0		30.11	-0.02	
GM-17	OK	5/3/2024	11:45 am	0.0		0.0		20.6		30.11	0.00	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

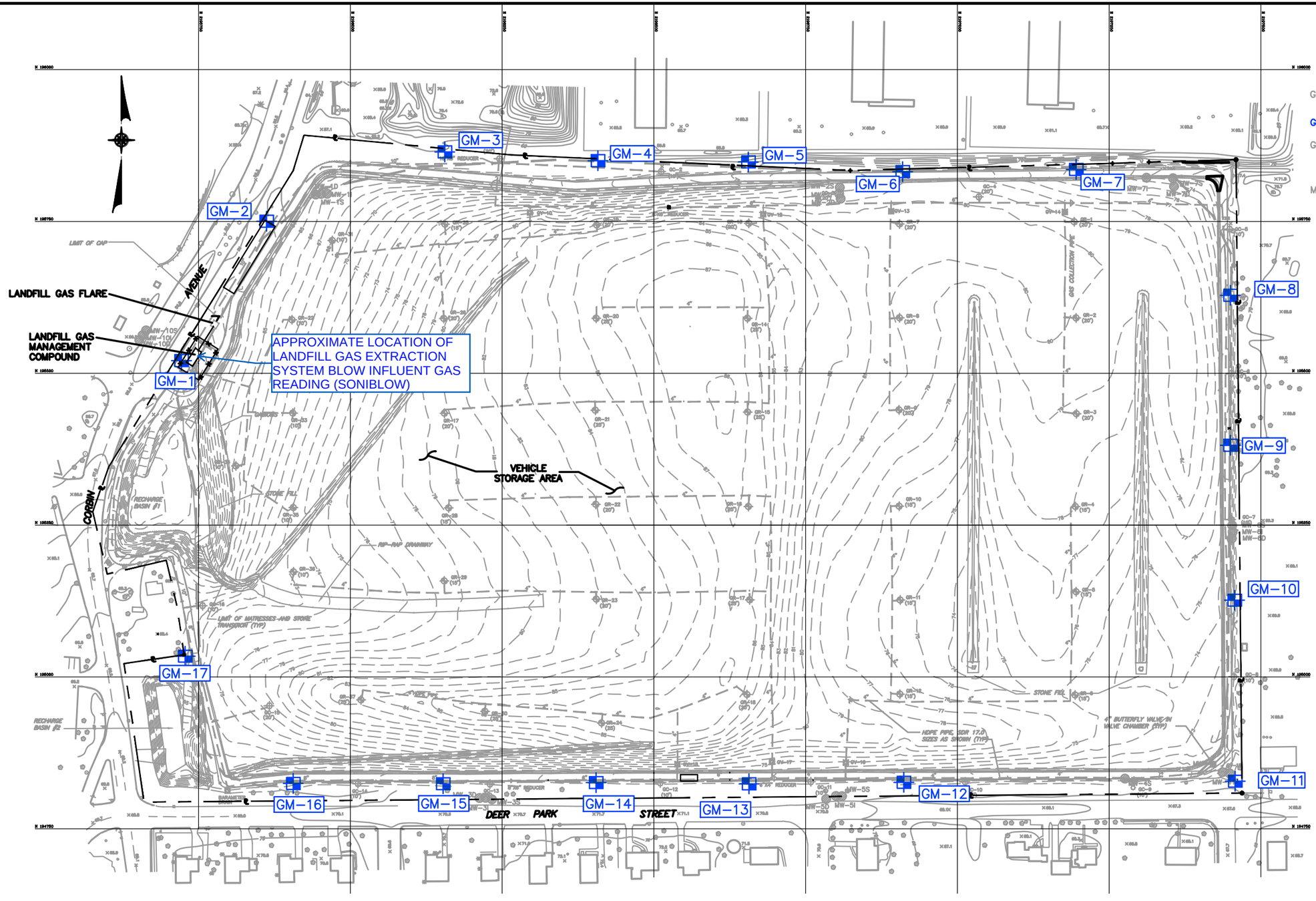
Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NS - Not Sampled

Blower System On 5/3/2024

Weather - 5/3/2024: 50°F, Sunny



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
- GM-12 — EXISTING LANDFILL GAS MONITORING WELL
- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
- EXISTING LANDFILL GAS FLARE
- MW-5D — EXISTING GROUND WATER MONITORING WELL (S=SHALLOW, I=INTERMEDIATE, D=DEEP)

NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

2.) EXISTING TOPOGRAPHY IS BASED UPON AS-BUILT DATA FURNISHED BY THE ISLIP RESOURSE RECOVERY AGENCY FOR CONTRACT NO. IRRA I-99, SONIA ROAD LANDFILL SITE REMEDIATION.

D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

S:\MFrangione\Figures\PW9848-Figure B-3.dwg, 11x17, 3/9/2021 3:06:29 PM, kalesius

D&B ENGINEERS AND ARCHITECTS

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William D. Merklin, P.E., *Executive Vice President*
Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

June 28, 2024

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

Re: Sonia Road Landfill
June 2024 Landfill Gas Monitoring Results
D&B No. 5282-04

Dear Mr. Varrichio:

On June 7, 2024, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for July 17, 2024.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Principal Geologist

TPF/DSt/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
♦5282\TPF06282403_Ltr.docx

TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	6/7/2024	12:17 PM	4.0	4.7	7.0	8.0	12.8	12.9	29.53	-13.32	3.68
GM-01	OK	6/7/2024	12:15 PM	0.0		0.2		20.3		29.53	0.01	
GM-02	OK	6/7/2024	12:21 PM	0.0		0.1		20.2		29.53	0.00	
GM-03	OK	6/7/2024	12:24 PM	0.0		0.1		20.2		29.53	0.00	
GM-04	OK	6/7/2024	12:27 PM	0.0		0.0		20.3		29.53	0.00	
GM-05	OK	6/7/2024	11:35 AM	0.0		0.0		20.6		29.53	-0.10	
GM-06	OK	6/7/2024	11:38 AM	0.0		1.1		19.9		29.53	-0.01	
GM-07	OK	6/7/2024	11:42 AM	0.0		2.8		14.9		29.53	0.00	
GM-08	OK	6/7/2024	11:45 AM	0.0		0.0		20.3		29.53	0.00	
GM-09	OK	6/7/2024	11:48 AM	0.0		1.4		18.6		29.53	0.00	
GM-10	OK	6/7/2024	11:51 AM	0.0		0.0		20.5		29.53	0.00	
GM-11	OK	6/7/2024	11:55 AM	0.0		1.4		18.8		29.53	0.00	
GM-12	OK	6/7/2024	11:58 AM	0.0		0.6		19.5		29.53	-0.02	
GM-13	OK	6/7/2024	12:01 PM	0.0		1.2		18.5		29.53	0.00	
GM-14	OK	6/7/2024	12:04 PM	0.0		1.6		17.9		29.53	0.00	
GM-15	OK	6/7/2024	12:07 PM	0.0		1.4		18.7		29.53	-0.01	
GM-16	OK	6/7/2024	12:10 PM	0.0		1.8		17.4		29.53	0.00	
GM-17	OK	6/7/2024	12:13 PM	0.0		1.5		18.9		29.53	-0.01	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

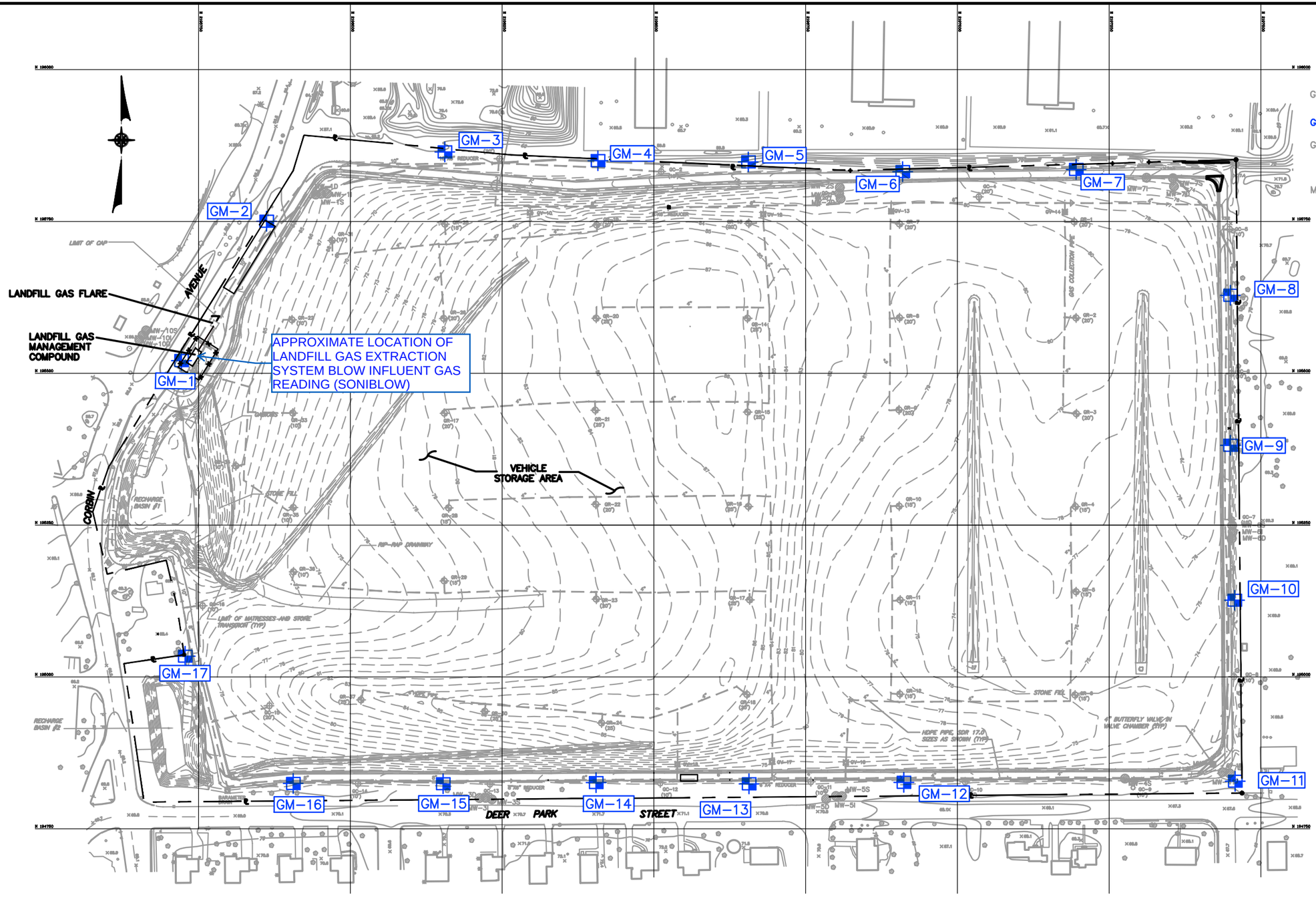
Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NS - Not Sampled

Blower System On 6/17/2024

Weather - 6/17/2024: 76°F, Partly Cloudy



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
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- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
- EXISTING LANDFILL GAS FLARE
- MW-5D — EXISTING GROUND WATER MONITORING WELL (S=SHALLOW, I=INTERMEDIATE, D=DEEP)

NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

2.) EXISTING TOPOGRAPHY IS BASED UPON AS-BUILT DATA FURNISHED BY THE ISLIP RESOURSE RECOVERY AGENCY FOR CONTRACT NO. IRRA I-99, SONIA ROAD LANDFILL SITE REMEDIATION.

D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

S:\MFrangione\Figures\PW9848-Figure B-3.dwg, 11x17, 3/9/2021 3:06:29 PM, kalesius

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Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

July 30, 2024

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

Re: Sonia Road Landfill
July 2024 Landfill Gas Monitoring Results
D&B No. 5282-04

Dear Mr. Varrichio:

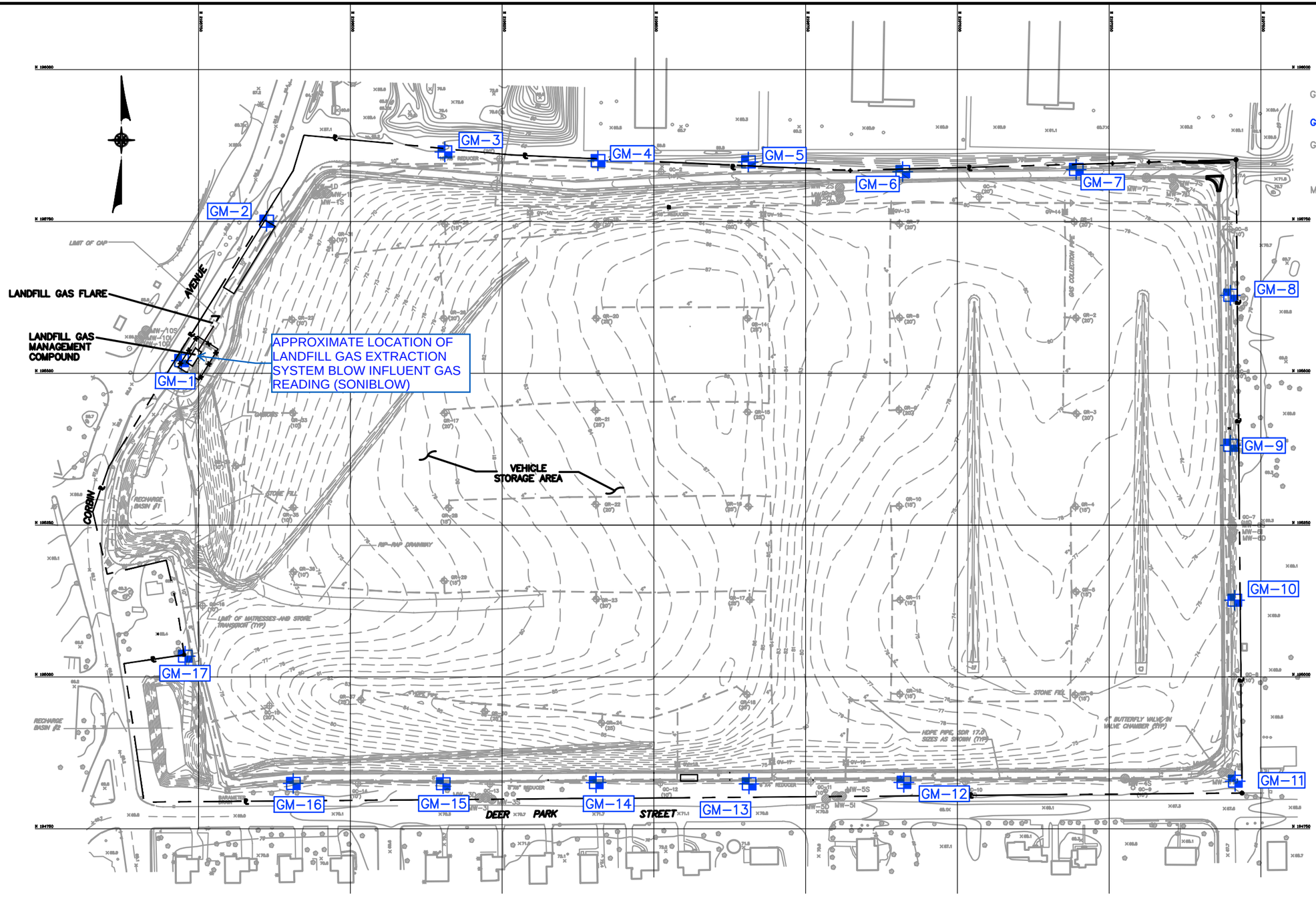
On July 3, 2024, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for August 23, 2024.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Principal Geologist

TPF/DSt/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
♦5282/TPF071924AJV_Sonia_Ltr.docx(R01)



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
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NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

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D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

S:\MFrangione\Figures\PW9848-Figure B-3.dwg, 11x17, 3/9/2021 3:06:29 PM, kalesius

TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	7/3/2024	12:06 PM	3.2	6.2	6.1	11.2	14.0	9.2	30.12	-34.18	5.21
GM-01	OK	7/3/2024	12:03 PM	0.0		1.5		18.9		30.12	0.00	
GM-02	OK	7/3/2024	12:10 PM	0.0		0.2		19.8		30.12	-0.04	
GM-03	OK	7/3/2024	12:13 PM	0.0		0.0		20.0		30.12	0.00	
GM-04	OK	7/3/2024	12:16 PM	0.0		1.0		18.9		30.12	0.00	
GM-05	OK	7/3/2024	11:25 AM	0.0		0.0		20.2		30.12	-0.19	
GM-06	OK	7/3/2024	11:27 AM	0.0		0.6		19.7		30.12	-0.05	
GM-07	OK	7/3/2024	11:31 AM	0.0		1.3		18.8		30.12	-0.07	
GM-08	OK	7/3/2024	11:34 AM	0.0		0.0		20.0		30.12	-0.03	
GM-09	OK	7/3/2024	11:36 AM	0.0		0.1		20.0		30.12	0.00	
GM-10	OK	7/3/2024	11:39 AM	0.0		0.0		20.0		30.12	0.00	
GM-11	OK	7/3/2024	11:41 AM	0.0		1.3		18.7		30.12	-0.01	
GM-12	OK	7/3/2024	11:46 AM	0.0		0.1		19.9		30.12	-0.01	
GM-13	OK	7/3/2024	11:49 AM	0.0		0.8		19.4		30.12	-0.02	
GM-14	OK	7/3/2024	11:51 AM	0.0		0.5		19.7		30.12	-0.02	
GM-15	OK	7/3/2024	11:54 AM	0.0		1.3		19.0		30.12	-0.01	
GM-16	OK	7/3/2024	11:57 AM	0.0		1.3		19.0		30.12	0.00	
GM-17	OK	7/3/2024	12:00 PM	0.0		0.0		20.2		30.12	-0.02	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NS - Not Sampled

Blower System On 7/3/2024

Weather - 7/3/2024: 75-80°F, Sunny

D&B ENGINEERS AND ARCHITECTS

330 Crossways Park Drive, Woodbury, New York 11797
516-364-9890 • 718-460-3634 • www.db-eng.com

Principals

Steven A. Fangmann, P.E., BCEE, *President & Chairman*
William D. Merklin, P.E., *Executive Vice President*
Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

August 27, 2024

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

Re: Sonia Road Landfill
August 2024 Landfill Gas Monitoring Results
D&B No. 5282-06

Dear Mr. Varrichio:

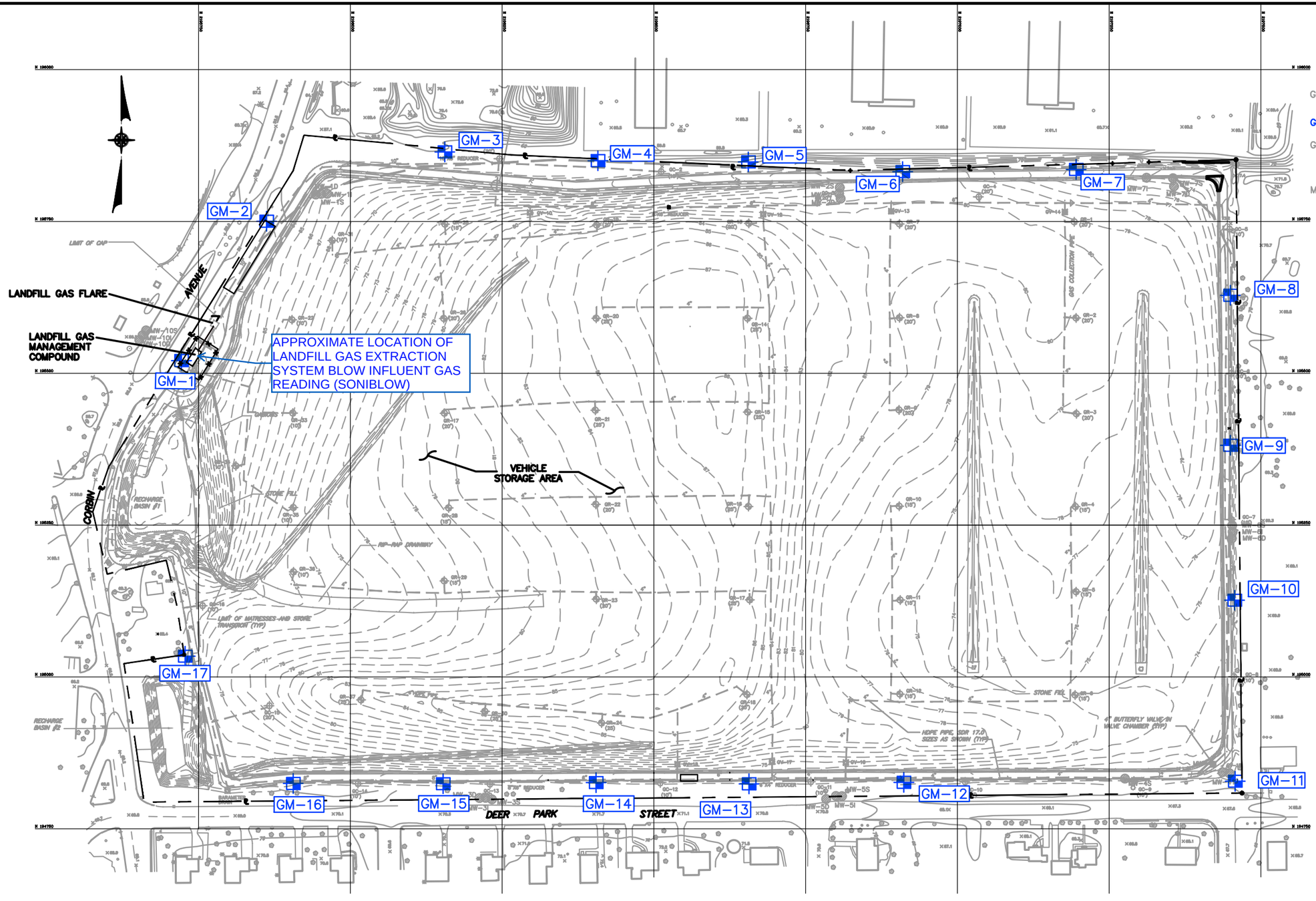
On August 1, 2024, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for September 3, 2024.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Principal Geologist

TPF/JSt/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
♦5282/TPF080824AJV-Ltr



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
- GM-12 — EXISTING LANDFILL GAS MONITORING WELL
- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
- EXISTING LANDFILL GAS FLARE
- MW-5D — EXISTING GROUND WATER MONITORING WELL (S=SHALLOW, I=INTERMEDIATE, D=DEEP)

NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

2.) EXISTING TOPOGRAPHY IS BASED UPON AS-BUILT DATA FURNISHED BY THE ISLIP RESOURSE RECOVERY AGENCY FOR CONTRACT NO. IRRA I-99, SONIA ROAD LANDFILL SITE REMEDIATION.

D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

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TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GM-01	OK	NS	NS	NS		NS		NS		NS	NS	
GM-02	OK	8/1/24	12:49	0.0		1.0		19.1		29.88	0.00	
GM-03	OK	8/1/24	12:52	0.0		0.0		20.0		29.88	0.00	
GM-04	OK	8/1/24	12:55	0.0		0.3		20.0		29.88	0.00	
GM-05	OK	8/1/24	12:10	0.0		0.0		20.9		29.88	-0.04	
GM-06	OK	8/1/24	12:13	0.0		0.7		20.0		29.88	-0.02	
GM-07	OK	8/1/24	12:16	0.0		0.0		20.7		29.88	-0.02	
GM-08	OK	8/1/24	12:19	0.0		0.0		20.5		29.88	-0.03	
GM-09	OK	8/1/24	12:22	0.0		0.1		20.1		29.88	-0.01	
GM-10	OK	NS - ANTS	NS	NS		NS		NS		NS	NS	
GM-11	OK	8/1/24	12:25	0.0		1.3		19.4		29.88	0.00	
GM-12	OK	8/1/24	12:28	0.0		0.3		20.2		29.88	0.00	
GM-13	OK	8/1/24	12:31	0.0		1.1		19.1		29.88	-0.01	
GM-14	OK	8/1/24	12:34	0.0		1.0		19.1		29.88	0.00	
GM-15	OK	8/1/24	12:37	0.0		1.4		18.7		29.88	0.00	
GM-16	OK	8/1/24	12:40	0.0		1.1		19.0		29.88	0.00	
GM-17	OK	8/1/24	12:43	0.0		0.7		19.6		29.88	-0.01	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NS - Not Sampled

Blower System OFF

Weather – 85-90F Sunny

D&B ENGINEERS AND ARCHITECTS

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Principals

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William D. Merklin, P.E., *Executive Vice President*
Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

October 8, 2024

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

Re: Sonia Road Landfill
September 2024 Landfill Gas Monitoring Results
D&B No. 5282-06

Dear Mr. Varrichio:

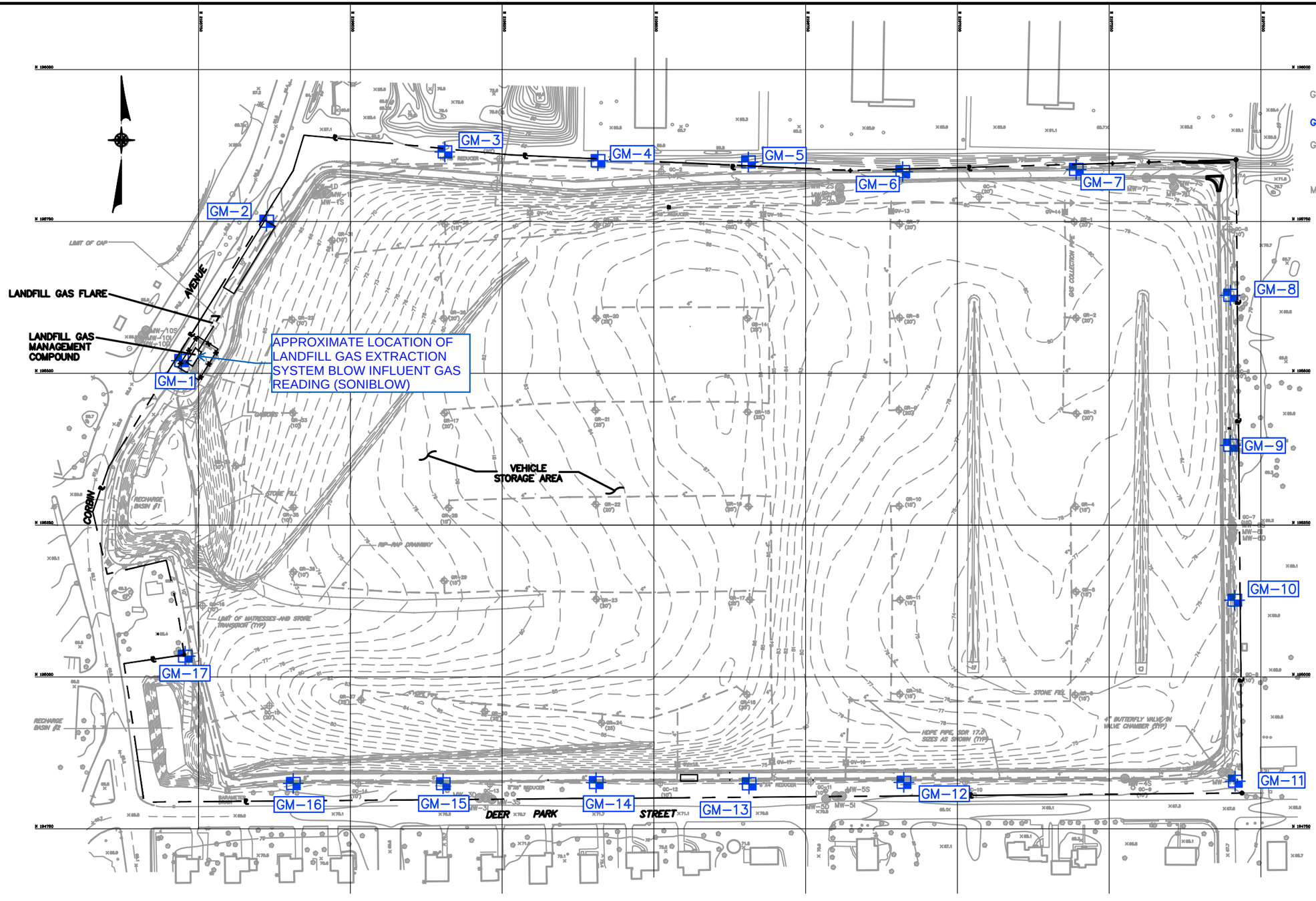
On September 6, 2024, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for October 16, 2024.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Principal Geologist

TPF/JSt/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
♦5282/TPF100824AJV-Sonia 9.24



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
- GM-12 — EXISTING LANDFILL GAS MONITORING WELL
- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
- EXISTING LANDFILL GAS FLARE
- MW-5D — EXISTING GROUND WATER MONITORING WELL (S=SHALLOW, I=INTERMEDIATE, D=DEEP)

NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

2.) EXISTING TOPOGRAPHY IS BASED UPON AS-BUILT DATA FURNISHED BY THE ISLIP RESOURSE RECOVERY AGENCY FOR CONTRACT NO. IRRA I-99, SONIA ROAD LANDFILL SITE REMEDIATION.

D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

S:\MFrangione\Figures\PW9848-Figure B-3.dwg, 11x17, 3/9/2021 3:06:29 PM, kalesius

TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	9/6/24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GM-01	OK	9/6/24	14:10	0.0		3.2		17.7		29.98	0.00	
GM-02	OK	9/6/24	14:15	0.0		2.7		18.1		29.98	0.00	
GM-03	OK	9/6/24	14:20	0.0		0.2		20.6		29.98	0.00	
GM-04	OK	9/6/24	14:25	0.0		0.2		20.1		29.98	0.00	
GM-05	OK	9/6/24	13:10	0.0		0.0		20.1		29.98	0.00	
GM-06	OK	9/6/24	13:15	0.0		0.4		19.7		29.98	0.00	
GM-07	OK	9/6/24	13:20	0.0		1.2		17.7		29.98	0.00	
GM-08	OK	9/6/24	13:25	0.0		0.1		19.8		29.98	0.00	
GM-09	OK	9/6/24	13:30	0.0		0.1		20.0		29.98	0.00	
GM-10	OK	9/6/24	NM - ANTS	NM		NM		NM		NM	NM	
GM-11	OK	9/6/24	13:35	0.0		1.1		19.0		29.98	0.00	
GM-12	OK	9/6/24	13:40	0.0		0.2		20.0		29.98	0.00	
GM-13	OK	9/6/24	13:45	0.0		0.8		19.3		29.98	0.00	
GM-14	OK	9/6/24	13:50	0.0		0.9		19.3		29.98	0.00	
GM-15	OK	9/6/24	13:55	0.0		1.1		19.1		29.98	0.00	
GM-16	OK	9/6/24	14:00	0.0		1.1		19.1		29.98	0.00	
GM-17	OK	9/6/24	14:05	0.0		0.4		20.0		29.98	0.00	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NM - Not Monitored

Blower System OFF

Weather – 77F

D&B ENGINEERS AND ARCHITECTS

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Principals

Steven A. Fangmann, P.E., BCEE, *President & Chairman*
William D. Merklin, P.E., *Executive Vice President*
Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

October 24, 2024

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

Re: Sonia Road Landfill
October 2024 Landfill Gas Monitoring Results
D&B No. 5282-06

Dear Mr. Varrichio:

On October 23, 2024, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for November 20, 2024.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Senior Associate

TPF/JSt/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
♦5282/TPG102324AJV-Sonia-Ltr

TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	10/23/24	12:55	5.0	6.1	9.6	11.7	11.4	9.2	30.03	-31.59	4.73
GM-01	OK	10/23/24	13:00	0.0		1.5		19.3		30.03	0.00	
GM-02	OK	10/23/24	13:05	0.0		0.6		20.3		30.03	0.00	
GM-03	OK	10/23/24	13:10	0.0		0.0		20.7		30.03	-0.03	
GM-04	OK	10/23/24	13:15	0.0		0.2		20.5		30.03	-0.02	
GM-05	OK	10/23/24	11:50	0.0		0.0		20.8		30.03	-0.10	
GM-06	OK	10/23/24	11:55	0.0		0.5		20.3		30.03	-0.04	
GM-07	OK	10/23/24	12:00	0.0		1.6		18.6		30.03	-0.06	
GM-08	OK	10/23/24	12:05	0.0		1.5		18.5		30.03	-0.03	
GM-09	OK	10/23/24	12:10	0.0		0.7		19.9		30.03	-0.03	
GM-10	OK	NM	NM	NM		NM		NM		NM	NM	
GM-11	OK	10/23/24	12:20	0.0		1.1		19.7		30.03	0.00	
GM-12	OK	10/23/24	12:25	0.0		0.3		20.4		30.03	-0.01	
GM-13	OK	10/23/24	12:30	0.0		1.2		19.2		30.03	-0.01	
GM-14	OK	10/23/24	12:35	0.0		0.9		19.8		30.03	-0.01	
GM-15	OK	10/23/24	12:40	0.0		1.0		19.6		30.03	0.00	
GM-16	OK	10/23/24	12:45	0.0		1.2		19.2		30.03	-0.03	
GM-17	OK	10/23/24	12:50	0.0		0.4		20.4		30.03	-0.01	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

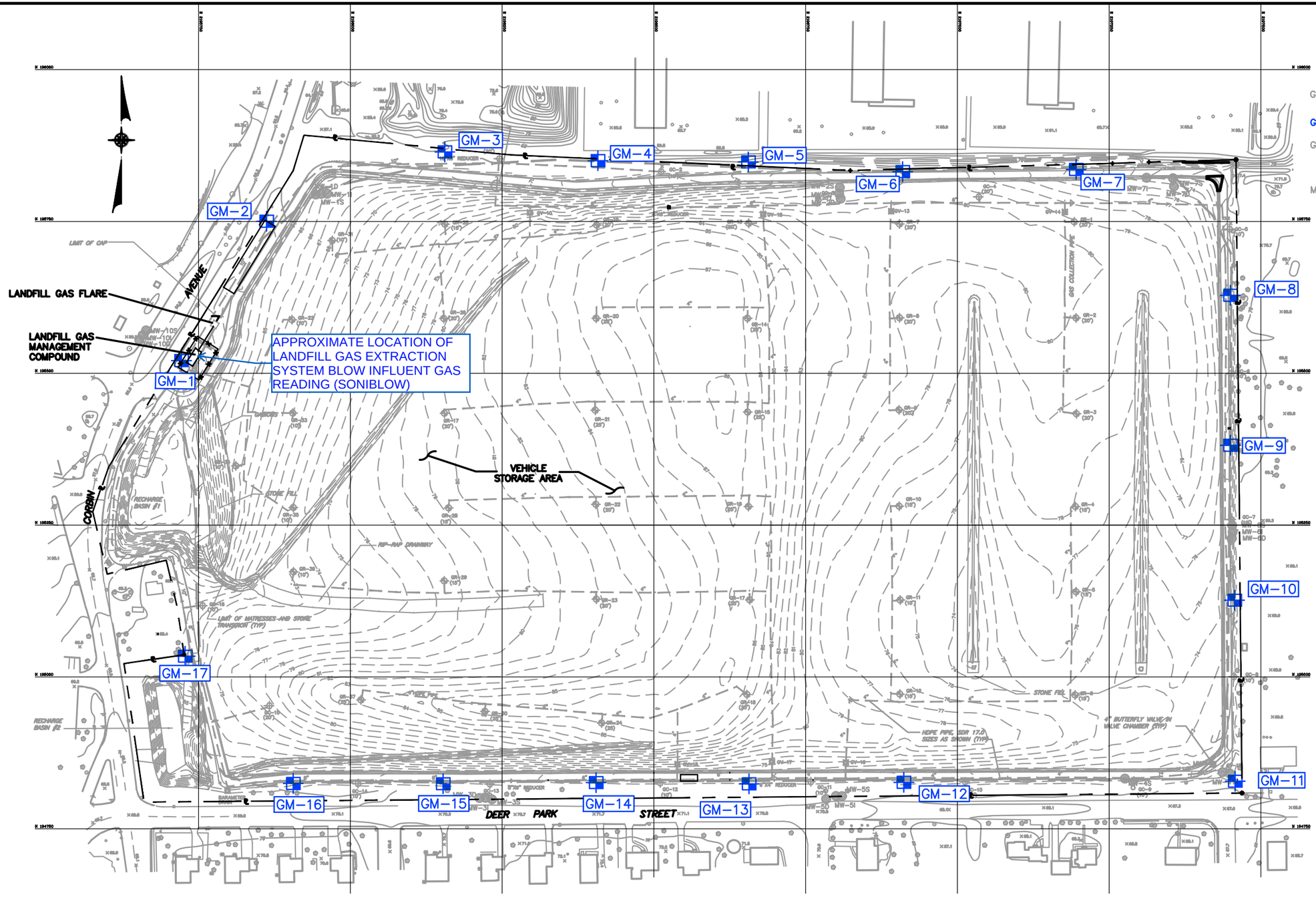
Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NM - Not Monitored – Pump stalled

Blower System ON

Weather – 70F



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
- GM-12 — EXISTING LANDFILL GAS MONITORING WELL
- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
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NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

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D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

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D&B ENGINEERS AND ARCHITECTS

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Principals

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Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

November 12, 2024

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

Re: Sonia Road Landfill
November 2024 Landfill Gas Monitoring Results
D&B No. 5282-06

Dear Mr. Varrichio:

On November 4, 2024, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for December 4, 2024.

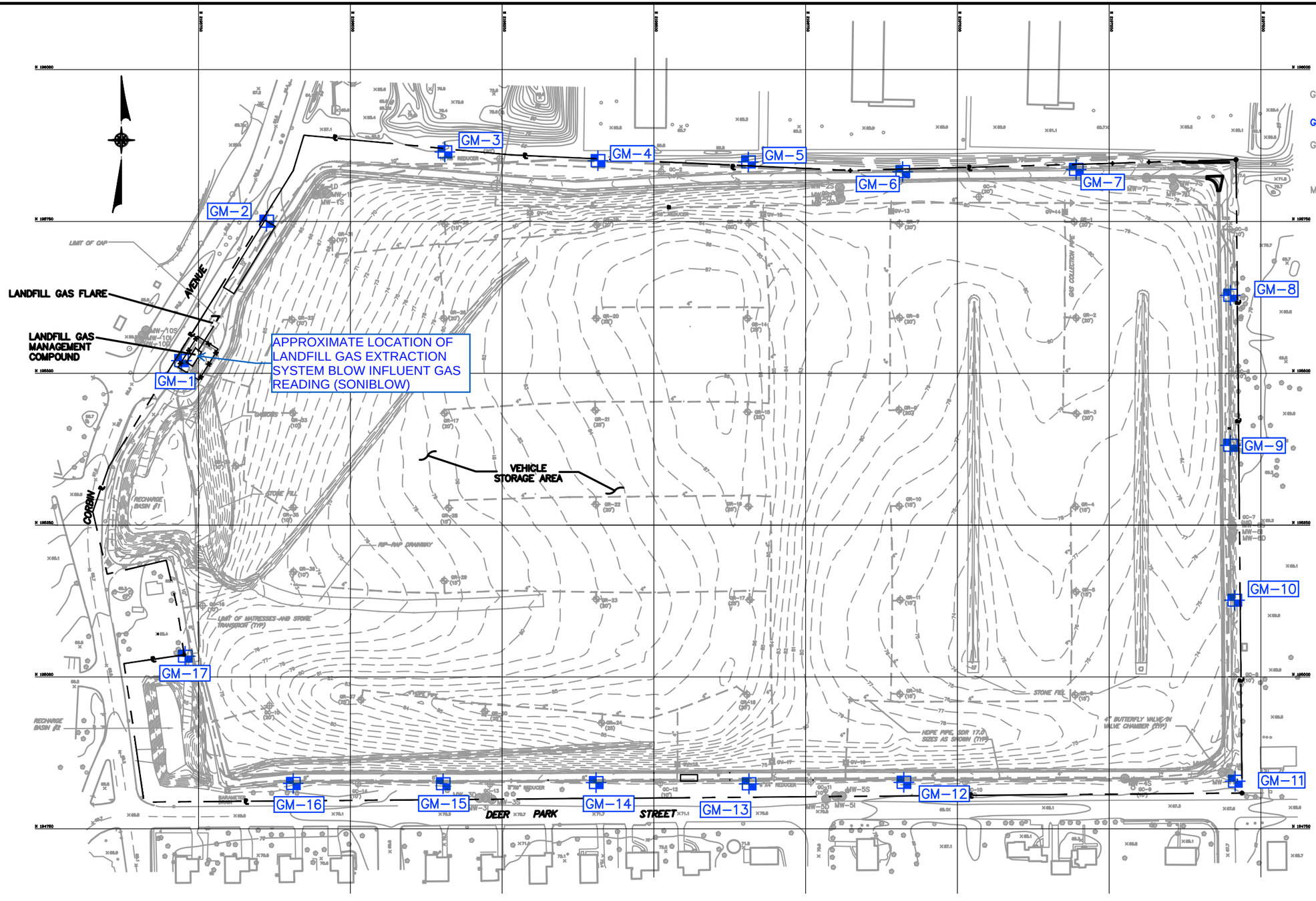
Please note that the perimeter road is becoming overgrown with vegetation, and should be cleared of overhanging branches.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Principal Geologist

TPF/JSt/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
♦5282/TPF111124AJV_Sonia_Ltr



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
- GM-12 — EXISTING LANDFILL GAS MONITORING WELL
- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
- EXISTING LANDFILL GAS FLARE
- MW-5D — EXISTING GROUND WATER MONITORING WELL (S=SHALLOW, I=INTERMEDIATE, D=DEEP)

NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

2.) EXISTING TOPOGRAPHY IS BASED UPON AS-BUILT DATA FURNISHED BY THE ISLIP RESOURSE RECOVERY AGENCY FOR CONTRACT NO. IRRA I-99, SONIA ROAD LANDFILL SITE REMEDIATION.

D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

S:\MFrangione\Figures\PW9848-Figure B-3.dwg, 11x17, 3/9/2021 3:06:29 PM, kalesius

TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	11/4/24	12:40	2.1	6.0	4.3	11.6	16.5	9.9	30.42	-31.09	4.47
GM-01	OK	11/4/24	12:35	0.0		1.3		19.8		30.42	0.00	
GM-02	OK	11/4/24	12:45	0.0		1.4		20.5		30.42	0.01	
GM-03	OK	11/4/24	12:50	0.0		0.0		20.8		30.42	-0.09	
GM-04	OK	11/4/24	12:55	0.0		0.0		20.6		30.42	-0.02	
GM-05	OK	11/4/24	11:30	0.0		0.0		2.07		30.42	-0.22	
GM-06	OK	11/4/24	11:35	0.0		0.4		20.3		30.42	-0.20	
GM-07	OK	11/4/24	11:40	0.0		1.0		19.6		30.42	-0.03	
GM-08	OK	11/4/24	11:45	0.0		1.1		19.6		30.42	-0.02	
GM-09	OK	11/4/24	11:50	0.0		0.9		19.8		30.42	-0.04	
GM-10	*	NM	NM	NM		NM		NM		NM	NM	
GM-11	OK	11/4/24	12:00	0.0		0.9		20.1		30.42	-0.01	
GM-12	OK	11/4/24	12:05	0.0		0.1		20.9		30.42	-0.02	
GM-13	OK	11/4/24	12:10	0.0		0.7		20.2		30.42	-0.01	
GM-14	OK	11/4/24	12:15	0.0		0.6		20.4		30.42	-0.03	
GM-15	OK	11/4/24	12:20	0.0		0.7		203		30.42	-0.02	
GM-16	OK	11/4/24	12:25	0.0		0.8		20.2		30.42	-0.09	
GM-17	OK	11/4/24	12:30	0.0		0.2		20.9		30.42	-0.07	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NM - Not Monitored – Pump stalled

* Well settlement has pinched closed the gas monitoring port hose, new monitoring port/hose should be installed.

Blower System ON

Weather – 55F, Mostly Clear

D&B ENGINEERS AND ARCHITECTS

330 Crossways Park Drive, Woodbury, New York 11797
516-364-9890 • 718-460-3634 • www.db-eng.com

Principals

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William D. Merklin, P.E., *Executive Vice President*
Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

January 6, 2025

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

Re: Sonia Road Landfill
December 2024 Landfill Gas Monitoring Results
D&B No. 5282-06

Dear Mr. Varrichio:

On December 4, 2024, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for January 3, 2025.

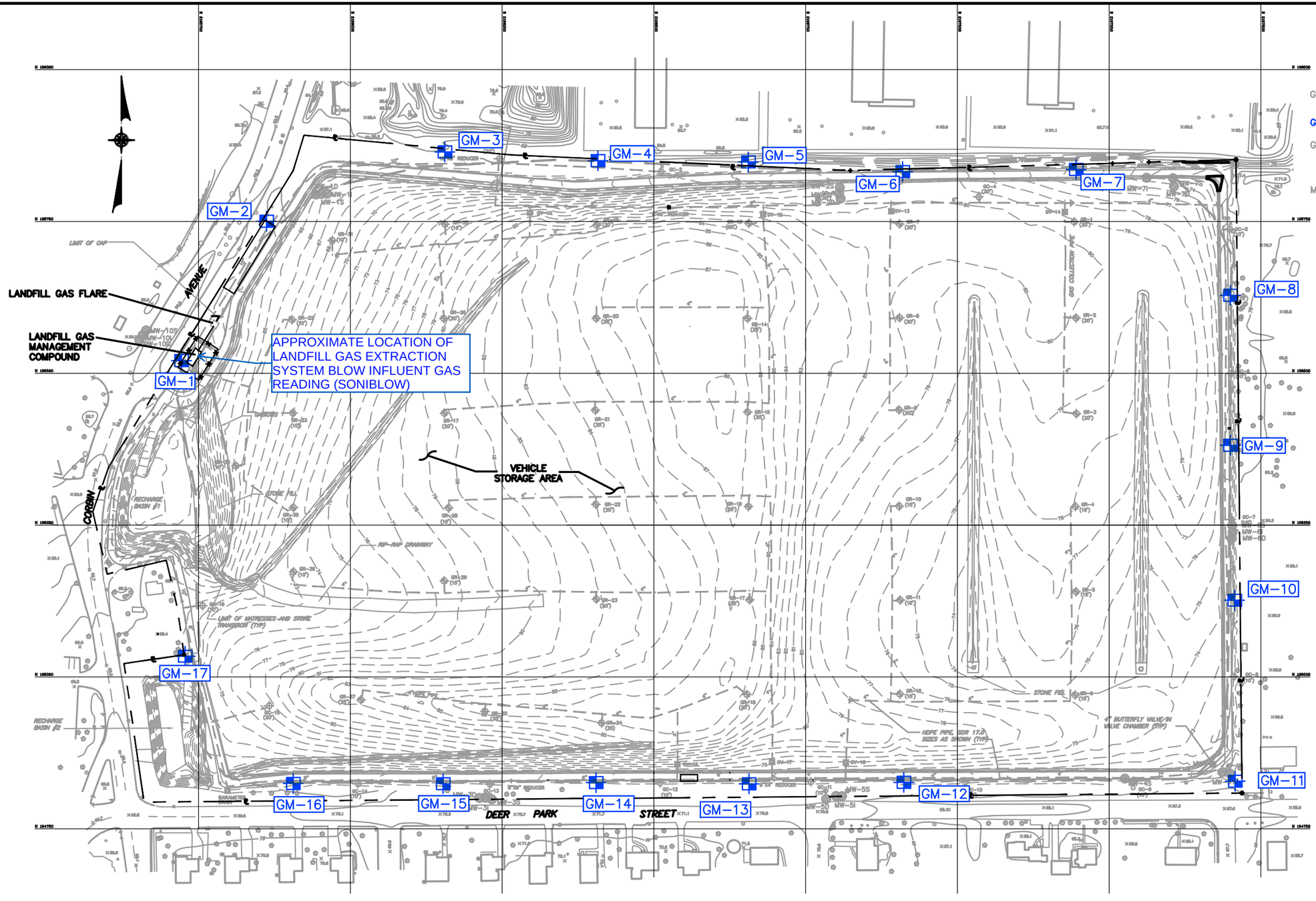
Please note that the perimeter road is becoming overgrown with vegetation and should be cleared of overhanging branches.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Senior Associate

TPF/JGt/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
♦5282/TPF010625AJV_Dec_Ltr(R01)



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
- GM-12 — EXISTING LANDFILL GAS MONITORING WELL
- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
- EXISTING LANDFILL GAS FLARE
- MW-5D — EXISTING GROUND WATER MONITORING WELL (S=SHALLOW, I=INTERMEDIATE, D=DEEP)

NOTES:

1.) FINAL CONTOURS REPRESENT THE TOP OF THE TOPSOIL LAYER, ROAD SURFACE ETC.

2.) EXISTING TOPOGRAPHY IS BASED UPON AS-BUILT DATA FURNISHED BY THE ISLIP RESOURSE RECOVERY AGENCY FOR CONTRACT NO. IRRA I-99, SONIA ROAD LANDFILL SITE REMEDIATION.

D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

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TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	12/4/24	13:10	3.9	4.8	7.0	8.1	14.1	12.9	30.18	-3.22	3.08
GM-01	OK	12/4/24	13:05	0.0		0.9		20.2		30.18	0.02	
GM-02	OK	12/4/24	12:55	0.0		0.4		21.7		30.18	0.00	
GM-03	OK	12/4/24	13:00	0.0		0.2		22.0		30.18	0.00	
GM-04	OK	12/4/24	13:15	0.0		0.1		21.0		30.18	0.02	
GM-05	OK	12/4/24	11:45	0.0		0.1		21.6		30.18	0.00	
GM-06	OK	12/4/24	11:50	0.0		0.1		21.7		30.18	0.00	
GM-07	OK	12/4/24	11:55	0.0		2.6		18.5		30.18	-0.03	
GM-08	OK	12/4/24	12:00	0.0		1.5		20.0		30.18	0.00	
GM-09	OK	12/4/24	12:05	0.0		3.1		18.5		30.18	0.00	
GM-10	OK	12/4/24	12:10	0.0		0.1		21.8		30.18	0.00	
GM-11	OK	12/4/24	12:15	0.0		1.0		21.0		30.18	0.00	
GM-12	OK	12/4/24	12:20	0.0		0.2		21.8		30.18	0.00	
GM-13	OK	12/4/24	12:25	0.0		1.4		20.3		30.18	0.00	
GM-14	OK	12/4/24	12:30	0.0		1.1		20.8		30.18	-0.02	
GM-15	OK	12/4/24	12:35	0.0		0.9		21.0		30.18	0.00	
GM-16	OK	12/4/24	12:40	0.0		1.0		21.2		30.18	-0.03	
GM-17	OK	12/4/24	12:45	0.0		0.6		21.5		30.18	-0.02	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NS - Not Sampled

Blower System On

Weather - 22-45°F, Cloudy

D&B ENGINEERS AND ARCHITECTS

330 Crossways Park Drive, Woodbury, New York 11797
516-364-9890 • 718-460-3634 • www.db-eng.com

Principals

Steven A. Fangmann, P.E., BCEE, *President & Chairman*
William D. Merklin, P.E., *Executive Vice President*
Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

January 6, 2025

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

Re: Sonia Road Landfill
January 2025 Landfill Gas Monitoring Results
D&B No. 5282-06

Dear Mr. Varrichio:

On January 3, 2025, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for February 5, 2024.

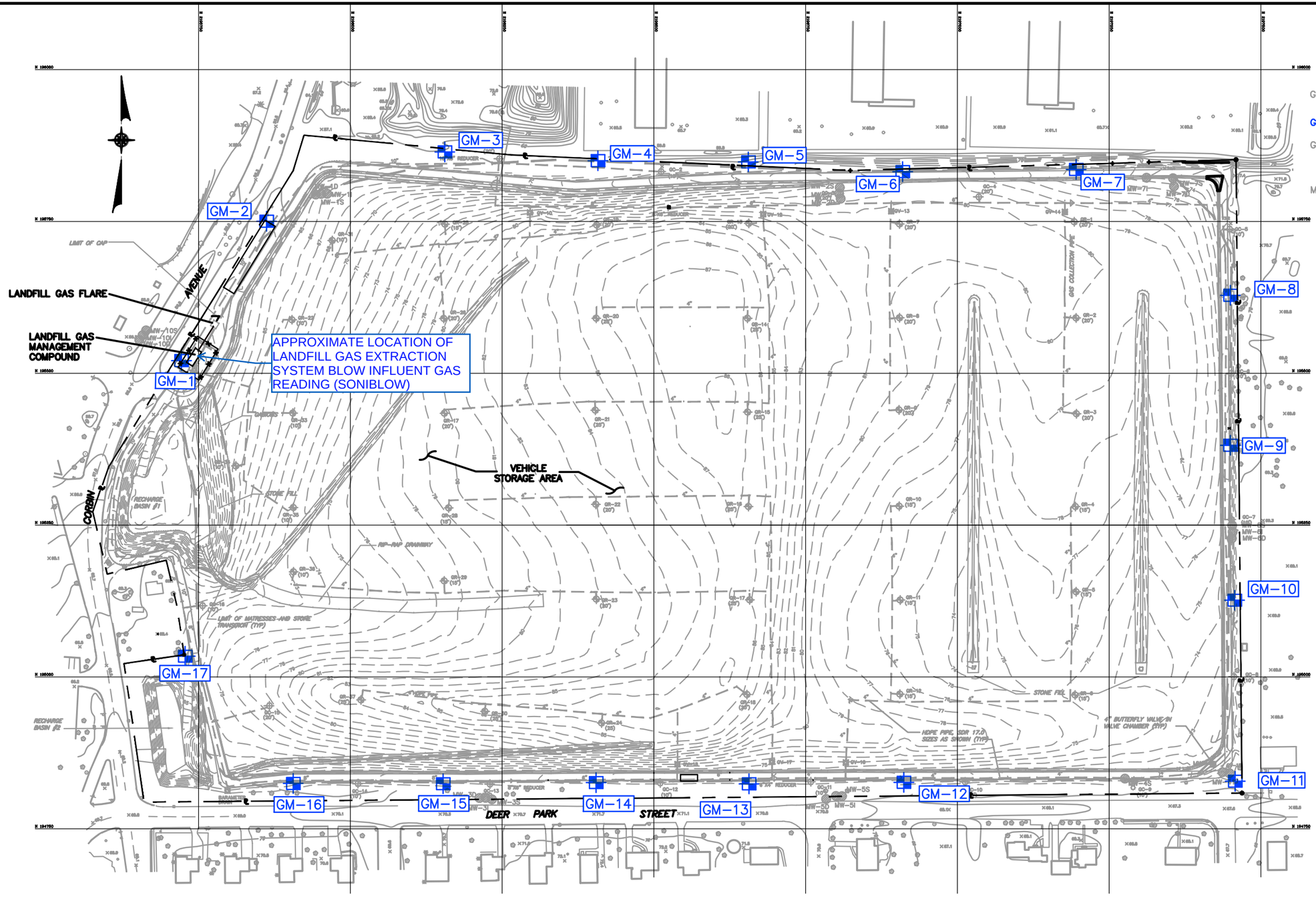
Please note that the perimeter road is becoming overgrown with vegetation and should be cleared of overhanging branches.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Senior Associate

TPF/JSt/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
♦5282/TPF010625AJV_Ltr



LEGEND

- GR-12 — EXISTING LANDFILL GAS RECOVERY WELL (10')=LENGTH SCREEN BELOW CROSS
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- GC-10 — EXISTING LANDFILL GAS COLLECTION WELL (10')=LENGTH SCREEN
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NOTES:

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D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

S:\MFrangione\Figures\PW9848-Figure B-3.dwg, 11x17, 3/9/2021 3:06:29 PM, kalesius

TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GM-01	OK	1/3/25	15:20	0.0		0.8		21.3		29.70	-0.02	
GM-02	OK	1/3/25	15:05	0.0		0.5		21.4		29.70	-0.02	
GM-03	OK	1/3/25	15:10	0.0		0.3		21.8		29.70	-0.02	
GM-04	OK	1/3/25	15:15	0.0		0.2		22.1		29.70	-0.02	
GM-05	OK	1/3/25	14:00	0.0		1.2		19.1		29.70	0.02	
GM-06	OK	1/3/25	14:05	0.0		0.5		20.8		29.70	0.02	
GM-07	OK	1/3/25	14:10	0.0		0.8		20.1		29.70	0.00	
GM-08	OK	1/3/25	14:15	0.0		0.9		20.5		29.70	0.00	
GM-09	OK	1/3/25	14:20	0.0		1.7		19.3		29.70	0.00	
GM-10	OK	1/3/25	14:25	0.0		0.1		21.8		29.70	-0.01	
GM-11	OK	1/3/25	14:30	0.0		1.2		20.7		29.70	-0.01	
GM-12	OK	1/3/25	14:35	0.0		0.1		21.9		29.70	-0.01	
GM-13	OK	1/3/25	14:40	0.0		0.7		21.3		29.70	-0.01	
GM-14	OK	1/3/25	14:45	0.0		0.4		21.5		29.70	-0.01	
GM-15	OK	1/3/25	14:50	0.0		0.5		21.6		29.70	0.00	
GM-16	OK	1/3/25	14:55	0.0		0.4		21.8		29.70	-0.01	
GM-17	OK	1/3/25	15:00	0.0		0.6		21.7		29.70	-0.02	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NS - Not Sampled

Blower System Off

Weather - 31-39°F, Partly Cloudy

D&B ENGINEERS AND ARCHITECTS

330 Crossways Park Drive, Woodbury, New York 11797
516-364-9890 • 718-460-3634 • www.db-eng.com

Principals

Steven A. Fangmann, P.E., BCEE, *President & Chairman*
William D. Merklin, P.E., *Executive Vice President*
Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

February 10, 2025

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

Re: Sonia Road Landfill
February 2025 Landfill Gas Monitoring Results
D&B No. 5282-06

Dear Mr. Varrichio:

On February 6, 2025, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for March 5, 2025.

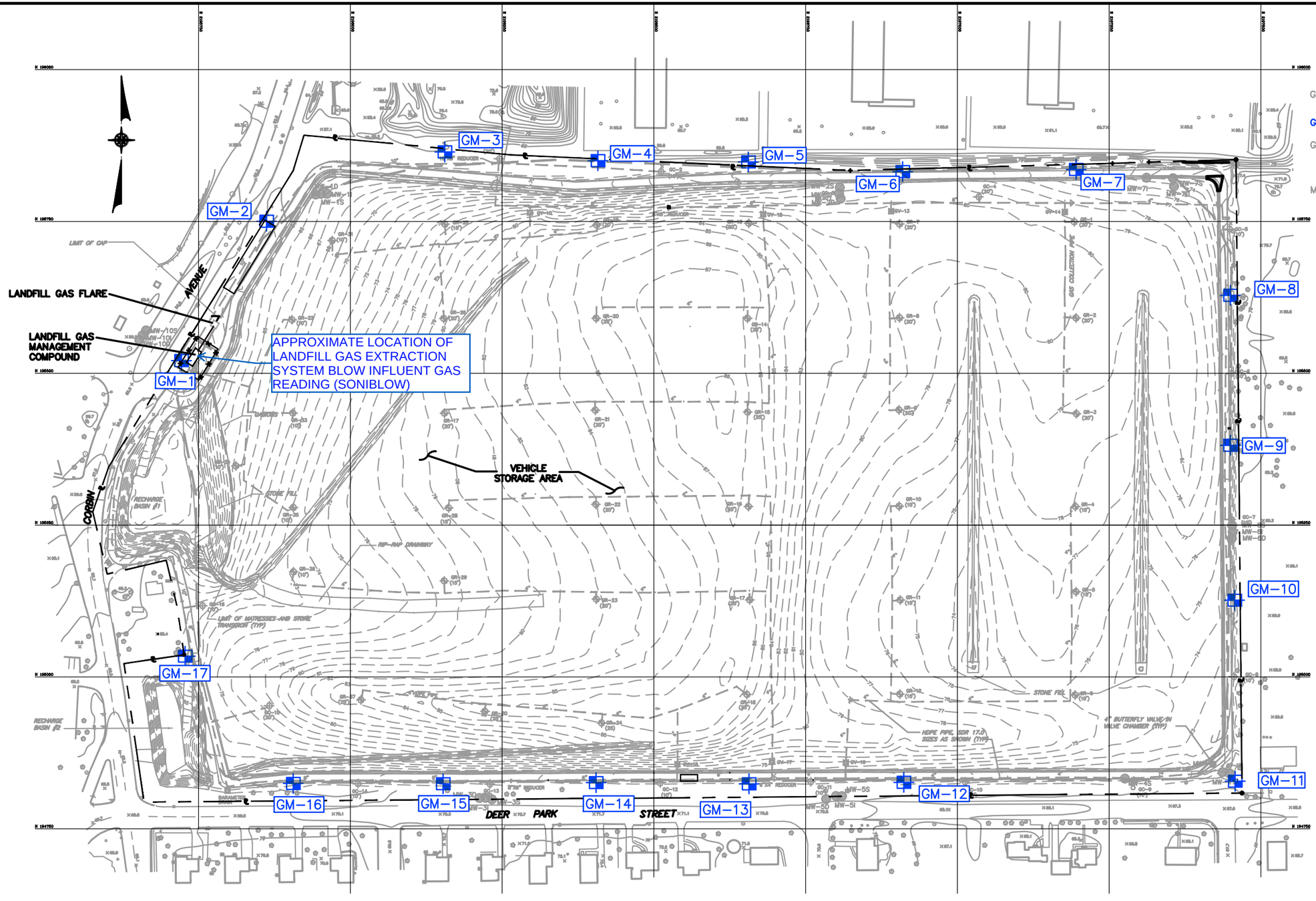
It should be noted that there were methane detections at sampling points GM-07 and GM-08 of 0.4% and 0.1%, respectively. These two adjacent sampling points at the northeast corner of the landfill should continue to be monitored. Please also note that the perimeter road is becoming overgrown with vegetation and should be cleared of overhanging branches.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Senior Associate

TPF/JSt/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
♦5282/TPF021025AJV_Sonia_Ltr



LEGEND

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NOTES:

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D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

S:\MFrangione\Figures\PW9848-Figure B-3.dwg, 11x17, 3/9/2021 3:06:29 PM, kalesius

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LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GM-01	OK	2/6/2025	16:40	0.0		0.5		20.3		29.65	0.0	
GM-02	OK	2/6/2025	16:45	0.0		0.5		20.5		29.65	0.0	
GM-03	OK	2/6/2025	16:50	0.0		0.4		19.0		29.65	-0.03	
GM-04	OK	2/6/2025	15:30	0.0		5.4		19.8		29.65	0.0	
GM-05	OK	2/6/2025	15:35	0.0		0.1		20.3		29.65	-0.08	
GM-06	OK	2/6/2025	15:40	0.0		6.1		20.2		29.65	-0.04	
GM-07	OK	2/6/2025	15:45	0.4		10.5		11.3		29.65	0.0	
GM-08	OK	2/6/2025	15:50	0.1		2.6		17.6		29.65	0.03	
GM-09	OK	2/6/2025	15:55	0.0		10.5		16.3		29.65	0.0	
GM-10	OK	2/6/2025	16:00	0.0		0.1		21.0		29.65	-0.01	
GM-11	OK	2/6/2025	16:05	0.0		1.2		20.0		29.65	-0.01	
GM-12	OK	2/6/2025	16:10	0.0		2.1		17.4		29.65	0.0	
GM-13	OK	2/6/2025	16:15	0.0		5.2		13.4		29.65	0.0	
GM-14	OK	2/6/2025	16:20	0.0		9.4		14.2		29.65	0.0	
GM-15	OK	2/6/2025	16:25	0.0		3.8		15.3		29.65	0.0	
GM-16	OK	2/6/2025	16:30	0.0		5.5		20.0		29.65	-0.01	
GM-17	OK	2/6/2025	16:35	0.0		2.0		16.7		29.65	0.2	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NS - Not Sampled

Blower System Off

Weather - 25°-42° Raining

D&B ENGINEERS AND ARCHITECTS

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Robert L. Raab, P.E., BCEE, CCM, *Senior Vice President*
Joseph H. Marturano, *Senior Vice President*

March 10, 2025

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

Re: Sonia Road Landfill
March 2025 Landfill Gas Monitoring Results
D&B No. 5282-06

Dear Mr. Varrichio:

On March 5, 2025, D&B Engineers and Architects, D.P.C. (D&B) performed landfill gas monitoring at the above-referenced site. Monitoring was performed with a Landtec GEM 5000 Gas Analyzer. The gas analyzer was calibrated with 50 percent (%) methane (CH_4) and 35% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. A Site Plan depicting the locations of the landfill gas monitoring points is included in Figure 1. The landfill gas monitoring results are provided in Table 1. The next landfill gas monitoring event is tentatively scheduled for April 3, 2025.

It should be noted that there were methane detections at sampling points GM-05, GM-06, GM-08, and GM-14 of 6.4%, 0.1%, 0.5%, and 0.1%, respectively. GM-14 is located on the south side of the site while the other three are located near the north east corner, all four wells should continue to be monitored. Please also note that the perimeter road is overgrown with vegetation and should be cleared of overhanging branches.

Should you have any questions, please do not hesitate to call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Principal Geologist

TPF/JGt/rs
Attachment
cc: Kennedy Esposito (via email)
Frank DeVita (D&B)
♦5282/TPF031025AJV_Ltr

TABLE 1

LANDFILL GAS MONITORING RESULTS

SONIA ROAD LANDFILL

ISLIP, NEW YORK

Gas Monitoring Wells

Location ID	Well Condition	Date	Time	CH_4		CO_2		O_2		Atmospheric Pressure	Relative Pressure	
				In	Out	In	Out	In	Out		In	Out
SONIBLOW	NA	3/5/25	15:25	0.0	0.0	0.1	0.1	21.3	21.3	29.66	0.01	0.01
GM-01	OK	3/5/25	15:20	0.0		0.6		20.6		29.66	-0.01	
GM-02	OK	3/5/25	15:30	0.0		0.5		20.3		29.66	0.02	
GM-03	OK	3/5/25	15:35	0.0		0.6		17.9		29.66	0.02	
GM-04	OK	3/5/25	13:15	0.0		4.9		11.6		29.66	0.01	
GM-05	OK	3/5/25	14:15	6.4		13.2		4.4		29.66	0.18	
GM-06	OK	3/5/25	14:20	0.1		8.6		9.6		29.66	0.01	
GM-07	OK	3/5/25	14:25	0.0		5.8		9.2		29.66	0.07	
GM-08	OK	3/5/25	14:30	0.5		12.8		6.1		29.66	0.01	
GM-09	OK	3/5/25	14:35	0.0		8.8		11.0		29.66	0.04	
GM-10	OK	3/5/25	14:40	0.0		0.1		21.0		29.66	0.0	
GM-11	OK	3/5/25	14:45	0.0		1.4		19.1		29.66	0.02	
GM-12	OK	3/5/25	14:50	0.0		2.5		16.6		29.66	0.01	
GM-13	OK	3/5/25	14:55	0.0		6.3		12.3		29.66	0.0	
GM-14	OK	3/5/25	15:00	0.1		10.0		7.3		29.66	-0.01	
GM-15	OK	3/5/25	15:05	0.0		5.4		14.4		29.66	-0.01	
GM-16	OK	3/5/25	15:10	0.0		6.8		10.5		29.66	0.01	
GM-17	OK	3/5/25	15:15	0.0		5.2		11.7		29.66	0.01	

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.

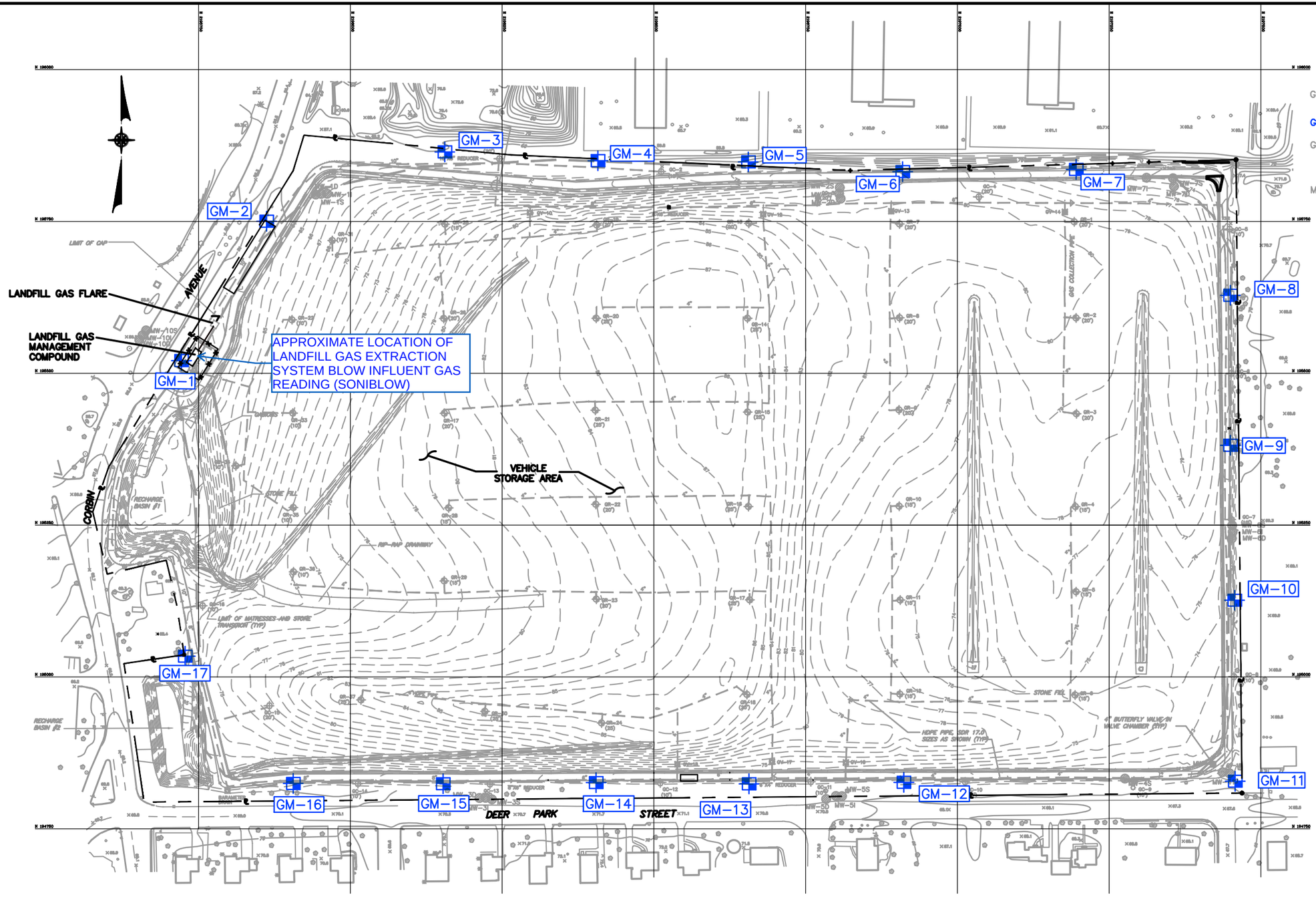
Relative well head pressure is reported in inches of water.

Atmospheric pressure is reported in inches of mercury.

NS - Not Sampled

Blower System Off

Weather - Cloudy, 41-52°F, Windy 18 mph



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D&B ENGINEERS AND ARCHITECTS

ISLIP RESOURCE RECOVERY AGENCY
SONIA ROAD LANDFILL

METHANE MONITORING WELL LOCATIONS

NOT TO SCALE

FIGURE 1

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APPENDIX F

POST CLOSURE MONITORING AND MAINTENANCE REPORT

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

VEGETATIVE COVER

DATE: 11/14/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
A3	c	4	Y ☐ N ☒ #	Will be addressed during Spring clean up
A5	c	4	Y ☐ N ☒ #	Will be addressed during Spring clean up
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

PROBLEM CODE	
a	Bare spots
b	Dead areas
c	Undesirable growth

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month

Directions:
List only items or areas of the site where problems or deficiencies are noted or where

d	Unauthorized dumpling
e	Litter
f	

4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

repairs or rehabilitation are required.

If entire site Vegetative Cover is acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

SOIL COVER

DATE: 11/14/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
F4	b & c	none	Y ☒ N ☐ #	Monitoring
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

			Y ☐ N ☐ #	

PROBLEM CODE			
a	Erosion damage	g	Waste breakthrough
b	Slope movement	h	Leachate breakthrough
c	Ponding (>10x10')	i	Exposed geosynthethics
d	Holes	j	Vandalism
e	Cracking	k	Vector infestation
f	Rutting of soils	l	

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If entire site Soil Cover is acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

REVETMENT MATTING (RIP RAP)

DATE: 11/14/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Side Slopes				
H1 - H5	f	none	Y ☐ N ☒ #	Monitoring
C5	f	none	Y ☒ N ☐ #	Monitoring
B5	f	none	Y ☐ N ☐ #	Monitoring
			Y ☐ N ☐ #	
Gabion Burb				

			Y ☐ N ☐ #	OK
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

PROBLEM CODE			
a	Vandalism	g	Waste breakthrough
b	Slope movement	h	Leachate breakthrough
c	Vector infestation	i	Exposed geosynthethics
d	Holes	j	Damaged baskets
e	Holes in wire fabric	k	Loose ties
f	Settlement	l	

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If all Revetment Matting (Rip Rap) and Gabion Curbs are acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

ACCESS ROADS

DATE: 11/14/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
C5	G	none	Y ☒ N ☐ #	Monitoring
			Y ☐ N ☐ #	

			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

PROBLEM CODE			
a	Potholes	g	Depressions
b	Burrow holes	h	
c	Erosion gullies	i	
d	Loss of stone cover	j	
e	Exposed geotextile	k	
f	Obstructions/debris	l	

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If all Access Roads are acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

STORMWATER COLLECTION SYSTEM (1 of 4) DATE: 11/14/2024

Semi-Annual Inspection ☐ Storm Inspection ☐ INSPECTION BY: Kennedy Esposito

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Perimeter Swales				
H1-H5	b	none	Y ☐ N ☒ #	Monitoring
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
Diversion Swales				
B4 & C4	e	4	Y ☐ N ☒ #	Will be addressed during Spring clean up
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

PROBLEM CODE			
a	Vandalism	g	Erosion control fabric
b	Slope movement	h	Loss of topsoil
c	Silt accumulation	i	Exposed geosynthethics
d	Ponded water	j	Wash outs
e	Vegetative cover	k	
f	Debris/ clogging	l	

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If Perimeter Swales and Diversion Swales are acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

STORMWATER COLLECTION SYSTEM (2 of 4)

DATE: 11/14/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Inlet Structures				
			Y ☐ N ☐ #	OK
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
Rip Rap Drainway				**Culvert Outlets**
B5	j	none	Y ☐ N ☐ #	Monitoring
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

PROBLEM CODE			
a	Vandalism	g	Erosion control fabric
b	Slope movement	h	Loss of stone
c	Silt accumulation	i	Loss of topsoil
d	Ponded water	j	Soil erosion around

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months

Directions:
List only items or areas of the site where problems or deficiencies are noted or

e	Vegetative cover	k	Soil erosion beneath
f	Debris/ clogging	l	Woody vegetation

5	Correct within 6 months
6	Correct within 1 year

where repairs or rehabilitation are required.

If Inlet Structures and Rip Rap Drainway are acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

STORMWATER COLLECTION SYSTEM (3 of 4) DATE: 11/14/2024

Semi-Annual Inspection ☐ Storm Inspection ☐ INSPECTION BY: Kennedy Esposito

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Energy Dissipators				
			Y ☐ N ☐ #	OK
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
Downchutes				
			Y ☐ N ☐ #	OK
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

PROBLEM CODE			
a	Vandalism	g	Soil erosion around
b	Slope movement	h	Loss of stone
c	Silt accumulation	i	Soil erosion beneath
d	Ponded water	j	Loose ties on baskets
e	Damage/ instability	k	Slippage of gabion
f	Debris/ clogging	l	Woody vegetation

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If Energy Dissipators and Downchutes are acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

STORMWATER COLLECTION SYSTEM (4 of 4)

DATE: 11/14/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Drywells				
C5	b	none	Y ☒ N ☐ #	Monitoring
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
Culverts/ Outlets				
B3	h	none	Y ☒ N ☐ #	Monitoring

			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

PROBLEM CODE			
a	Vandalism	g	Erosion control fabric
b	Slope movement	h	Soil erosion around
c	Silt accumulation	i	Exposed geosynthetics
d	Ponded water	j	Damage/ instability
e	Vegetative cover	k	
f	Debris/ clogging	l	

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If Drywells and Culverts are acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

RECHARGE BASINS

DATE: 11/14/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

GRID I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Recharge Basin No. 1				
A3	a	4	Y ☐ N ☒ #	Will be addressed during Spring clean up
			Y ☐ N ☐ #	Quotes already aquired
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
Recharge Basin No. 2				
A5	a	4	Y ☐ N ☒ #	Will be addressed during Spring clean up
			Y ☐ N ☐ #	Quotes already aquired
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

PROBLEM CODE	
a	Vegetation
b	Sideslope erosion
c	Sideslope failures
d	Silt accumulation

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months

Directions:
List only items or areas of the site where problems or deficiencies are noted or where

e	Overflow conditions
f	Debris/ clogging

5	Correct within 6 months
6	Correct within 1 year

repairs or rehabilitation are required.

If both Recharge Basins are acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

MONITORING WELLS

DATE: 12/31/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Dvirka and Bartilucci

ITEM I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Landfill Gas Monitoring Wells				**See well condition reports prepared by Town consultants.**
			Y ☐ N ☐ #	D&B Monthly Reports Attached
Well #5	c	none	Y ☒ N ☐ #	Monitoring
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
Groundwater Monitoring Wells				**See well condition reports prepared by Town consultants.**
			Y ☐ N ☐ #	D&B Report Attached
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

PROBLEM CODE	
a	Damage
b	Vandalism
c	Settlement
d	Vector infestation
e	
f	

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If all Monitoring Wells are acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

LANDFILL GAS COLLECTION SYSTEM

DATE: 12/12/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

ITEM I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
LFG Recovery Wells/ Valve Vaults				
10-18			Y ☐ N ☒ #	
18	k	none	Y ☐ N ☒ #	Monitoring
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	
LFG Collection Wells (GC1 – GC 16)				
1-16			Y ☐ N ☒ #	

5	d	none	Y ☐ N ☒ #	Monitoring
			Y ☐ N ☐ #	
			Y ☐ N ☐ #	

PROBLEM CODE			
a	Odor	g	Broken valve
b	Damage	h	Broken piping
c	Vandalism	i	Exposed geosynthetics
d	Settlement	j	Damage/ instability
e	Vector infestation	k	Soil erosion around
f	No vacuum	l	Access restricted

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If entire site Landfill Gas Collection System is acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

LANDFILL GAS COMPOUND

DATE: 12/12/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

ITEM I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Blower Pad/ Blower Nos, 104A and 104B				
104A & B	d	none	Y ☐ N ☒ #	Minor Oil Leak. Monitoring and Maintaining weekly
104A & B	g	none	Y ☐ N ☒ #	Electrical auto-switch inoperable. Manually Switch weekly
			Y ☐ N ☐ #	

Flare				
			Y☐ N☒ #	**Venting only**
			Y☐ N☐ #	
Condensate Storage		**Liquid Volume =** 1583 Gallons		**Alarms: Y☐ N☒ Test System: OK☒ Not Successful☐**
			Y☐ N☒ #	12/19/2024 Print out attached
			Y☐ N☐ #	

PROBLEM CODE			
a	Odor	g	Broken valve
b	Damage	h	Broken piping
c	Vandalism	i	Broken belts
d	Mechanical noise	j	Gauges
e	No vacuum	k	
f	Alarms	l	

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If entire site Landfill Gas Compound is acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

SITE FACILITIES

DATE: 12/12/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

ITEM I.D.	PROBLEM CODE	PRIORITY CODE	PHOTO TAKEN	COMMENTS
Electrical Panels and Control Panels				**Lights tested: Y☒ N☐**

			Y ☐ N ☒ #	Level Probes and Leak Sensors all Pass
			Y ☐ N ☐ #	
Gates/ Locks/ Signs				
			Y ☐ N ☒ #	
Fencing (Identify location by Grid I.D.)				
			Y ☒ N ☐ #	
			Y ☒ N ☐ #	
Site Trailer				
A3	b	none	Y ☐ N ☒ #	Graffiti

PROBLEM CODE			
a	Damage	g	Replace indicator lights
b	Vandalism	h	Tripped/ reset required
c	Alarms	i	
d	Missing locks	j	
e	Missing Signs	k	
f	Hole in fence fabric	l	

PRIORITY CODE	
1	Immediate
2	Correct within 1 week
3	Correct within 1 month
4	Correct within 3 months
5	Correct within 6 months
6	Correct within 1 year

Directions:
List only items or areas of the site where problems or deficiencies are noted or where repairs or rehabilitation are required.

If all Site Facilities are acceptable, check box and sign below. ☒

Signature: Kennedy Esposito

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN
SITE INSPECTION CHECKLIST

COMMENTS

DATE: 12/12/2024

Semi-Annual Inspection ☐ Storm Inspection ☐

INSPECTION BY: Kennedy Esposito

ADDITIONAL COMMENTS AS REQUIRED
12/19/2024 - Downed Trees on South Fence removed 10/31/2024 - Jessica Sidor on site - IWU Semi-annual Inspection (unannounced) PASSED

Site inspection has been completed, check box and sign below. ☒

Signature: Kennedy Esposito

GAS MIGRATION MONITORING REPORTS

(See Appendix E of Periodic Review Report)

MONITORING WELL INSPECTION CHELKLISTS

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-01S

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact		X	Cracked in half
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked			
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Jack Gill

Date of Inspection 1/21/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-01I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/21/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-01D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/21/24

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-02D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/21/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-02I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/21/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-07I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/22/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-06D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/22/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-06I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/22/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-06S

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/22/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-12S

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal			N/A
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/22/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-12I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal			N/A
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/23/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-12D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal			N/A
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/23/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-03S

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal			N/A
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/23/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-05S

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/23/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-05I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/23/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-05D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-04I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-04D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-04S

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-07S

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-07D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-03I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal			N/A
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-03D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal			N/A
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-10S

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-10I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-10D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact	X		
Cracked		X	
Missing		X	
2. Ponding of Water Around Concrete Seal		X	
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-13S

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal	X		
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-13I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal	X		
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-13D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal	X		
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-14S

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal			N/A
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-14I

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal			N/A
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

D&B ENGINEERS AND ARCHITECTS

MONITORING WELL INSPECTION CHECKLIST

Well No. MW-14D

	Yes	No	Remarks
1. Surface Concrete Seal			
Intact			N/A
Cracked			
Missing			
2. Ponding of Water Around Concrete Seal			N/A
3. Protective Flush-Mounted Cover/Standpipe and Lock			
Flush-Mounted Cover - Intact	X		
Standpipe - Intact	X		
Lock - Intact	X		
4. Well Casing Alignment (Straight)	X		
5. Survey Measuring Point Clearly Marked	X		
6. Well Clearly Labeled	X		
7. Well is Protected	X		

Comments:

Inspector Signature Jack Gill

Date of Inspection 1/24/25

OMNTEC FIELD TEST RESULTS

---OMNTEC Mfg., Inc.
Tel: 1(631)981-2001
Fax: 1(631)981-2007

---SITE INFORMATION:
Name:Town Of Islip
Addr:SONIA ROAD LANDFILL
ID#: EL018627
VER 4.22 PR 030603
MAR 13, 2025 11:58 AM

---OMNTEC PROBE
TH 03/13/25 11:58:12
Tank 1

Product Type:	Leachate
Product Height:	15.09(In)
Water:	1.30(In)
Gross Volume:	893.94(G)
T.C.:	856.07(G)
Water:	42.66(G)
Ullage:	4935.06(G)
TEMP.:	47.57(°F)

---OMNTEC Mfg.,Inc.
Tel: 1(631)981-2001
Fax: 1(631)981-2007

--SITE INFORMATION:
Name:Town Of Islip
Addr:SONIA ROAD LANDFILL
ID#: EL018627
VER 4.22 PR 030603
MAR 13, 2025 11:58 AM

---Testing PROM
PROM Tests OK

--Testing RAM PASSED
--Parameter Flash Used 0.85%

---Check Slot
Slot 1 Annunciator Board
Slot 2 Relay Board
Slot 3 Relay Board

---Testing Level Probes

T#	PRODUCT TYPE	TEST
T1	Leachate	P

---Testing Leak Sensors

S#	P/N	LABEL	TEST
01	BXPDS	SOUTH SUMP	P
	(S/N: 200153248)		
02	BXPDS	T 1,Sump#: 1	P
	(S/N: 200080154)		
03	BXPDWF	T 1,Dble_Wall#: 1	P
	(S/N: 210030803)		
04	BXUT1	Caution Level	P
	(S/N: 500031027)		

S#= SENSOR NUMBER, P/N= PART NUMBER,
T#= TANK, S/N= SENSOR SERIAL NUMBER,
P=PASS, A=ALARM, F=FAIL, NR=NO REPLY

CARS STORED ONSITE

ATLANTIC CENTRAL STORAGE

	A	B
1	110 HYUNDAI GENESIS	189
2	HUNTINGTON KIA	140
3	ADVANTAGE TOYOTA	40
4	ADVANTAGE HYUNDAI	288
5	ATLANTIC CADDY	0
6	ATLANTIC CHEVY	255
7	ATLANTIC HONDA	294
8	ATLANTIC HYUNDAI	456
9	ATLANTIC TOYOTA	4
10	ATLANTIC KIA	179
11	MASSAPEQUA TOYOTA	56
12	MILLENNIUM HONDA	72
13	MILLENNIUM HYUNDAI	150
14	MILLENNIUM CHEVY	122
15	SOUTH SHORE HYUNDAI	277
16		0
17	TOTAL AS OF 12/31/2024	2,522

ATLANTIC CENTRAL STORAGE

	A	B
1	110 HYUNDAI GENESIS	175
2	HUNTINGTON KIA	148
3	ADVANTAGE TOYOTA	43
4	ADVANTAGE HYUNDAI	295
5	ATLANTIC CADDY	0
6	ATLANTIC CHEVY	260
7	ATLANTIC HONDA	200
8	ATLANTIC HYUNDAI	400
9	ATLANTIC TOYOTA	15
10	ATLANTIC KIA	160
11	MASSAPEQUA TOYOTA	20
12	MILLENNIUM HONDA	65
13	MILLENNIUM HYUNDAI	130
14	MILLENNIUM CHEVY	122
15	SOUTH SHORE HYUNDAI	250
16		0
17	TOTAL AS OF 11/30/2024	2,283

ATLANTIC CENTRAL STORAGE

	A	B
1	110 HYUNDAI GENESIS	200
2	HUNTINGTON KIA	155
3	ADVANTAGE TOYOTA	121
4	ADVANTAGE HYUNDAI	538
5	ATLANTIC CADDY	80
6	ATLANTIC CHEVY	307
7	ATLANTIC HONDA	236
8	ATLANTIC HYUNDAI	455
9	ATLANTIC TOYOTA	45
10	ATLANTIC KIA	167
11	MASSAPEQUA TOYOTA	13
12	MILLENNIUM HONDA	72
13	MILLENNIUM HYUNDAI	127
14	MILLENNIUM CHEVY	150
15	SOUTH SHORE HYUNDAI	266
16		0
17	TOTAL AS 10/18/2024	2,932

ATLANTIC CENTRAL STORAGE

	A	B
1	110 HYUNDAI GENESIS	81
2	HUNTINGTON KIA	54
3	ADVANTAGE TOYOTA	91
4	BABYLON HONDA	0
5	ATLANTIC CADDY	3
6	ATLANTIC CHEVY	291
7	ATLANTIC HONDA	179
8	ATLANTIC HYUNDAI	634
9	ATLANTIC TOYOTA	47
10	ATLANTIC KIA	46
11	MASSAPEQUA TOYOTA	17
12	MILLENNIUM HONDA	18
13	MILLENNIUM HYUNDAI	112
14	MILLENNIUM CHEVY	124
15	SOUTH SHORE HYUNDAI	126
16		0
17	TOTAL AS 2/22/2024	1,823

APPENDIX G

GREEN REMEDIATION METRICS

Summary of Green Remediation Metrics for Site Management

Site Name: SONIA ROAD LANDFILL Site Code: 099-001-0059
Address: 1355 Howells Rd City: BRENTWOOD
State: NEW YORK Zip Code: ~~11717~~ 11729 County: SUFFOLK

Initial Report Period (Start Date of period covered by the Initial Report submittal)
Start Date: March 31, 2023

Current Reporting Period
Reporting Period From: March 31, ~~2023~~ 2024 To: March 31, ~~2024~~ 2025

Contact Information
Preparer's Name: Kennedy Esposito Phone No.: 631-234-8486
Preparer's Affiliation: IRRA

I. Energy Usage: Quantify the amount of energy used directly on-site and the portion of that derived from renewable energy sources.

	Current Reporting Period	Total to Date
Fuel Type 1 (e.g. natural gas (cf))	0	0
Fuel Type 2 (e.g. fuel oil, propane (gals))	0	0
Electricity (kWh)	14804 kWh	14804 kWh
Of that Electric usage, provide quantity:		
Derived from renewable sources (e.g. solar, wind)	0	0
Other energy sources (e.g. geothermal, solar thermal (Btu))	0	0

Provide a description of all energy usage reduction programs for the Site in the space provided on Page 3.

II. Solid Waste Generation: Quantify the management of solid waste generated on-site.

	Current Reporting Period (tons)	Total to Date (tons)
Total waste generated on-site	0	0
OM&M generated waste	0	0
Of that total amount, provide quantity:		
Transported off-site to landfills	0	0
Transported off-site to other disposal facilities	0	0
Transported off-site for recycling/reuse	0	0
Reused on-site	0	0

Provide a description of any implemented waste reduction programs for the Site in the space provided on Page 3.

III. Transportation/Shipping: Quantify the distances travelled for delivery of supplies, shipping of laboratory samples, and the removal of waste.

	Current Reporting Period (miles)	**Total to Date (miles)**
Standby Engineer/Contractor	0	0
Laboratory Courier/Delivery Service	0	0
Waste Removal/Hauling	0	0

Provide a description of all mileage reduction programs for the Site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the Site.

IV. Water Usage: Quantify the volume of water used on-site from various sources.

	Current Reporting Period (gallons)	**Total to Date (gallons)**
Total quantity of water used on-site	0	0
Of that total amount, provide quantity:	0	0
Public potable water supply usage	0	0
Surface water usage	0	0
On-site groundwater usage	0	0
Collected or diverted storm water usage	0	0

Provide a description of any implemented water consumption reduction programs for the Site in the space provided on Page 3.

V. Land Use and Ecosystems: Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	Current Reporting Period (acres)	**Total to Date (acres)**
Land disturbed	42.7	42.7
Land restored	0	0

Provide a description of any implemented land restoration/green infrastructure programs for the Site in the space provided on Page 3.

Description of green remediation programs reported above (Attach additional sheets if needed)
Energy Usage: electrical usage from July 2024 to July 2025
Waste Generation: none
Transportation/Shipping:
Water usage: none
Land Use and Ecosystems: used as car storage
Other:

CERTIFICATION BY CONTRACTOR
I, _____ **(Name)** do hereby certify that I am _____ **(Title)** of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief, all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including that last day of the period covered by this application. _____ **Date** **Contractor**

APPENDIX H

CORRECTIVE MEASURES REPORT

D&B ENGINEERS AND ARCHITECTS

330 Crossways Park Drive, Woodbury, New York 11797
516-364-9890 • 718-460-3634 • Fax: 516-364-9045 • www.db-eng.com

Principals

Steven A. Fangmann, P.E., BCEE
President & Chairman

William D. Merklin, P.E.
Executive Vice President

Robert L. Raab, P.E., BCEE, CCM
Senior Vice President

Joseph H. Marturano
Senior Vice President

February 16, 2024

New York State Department of Environmental Conservation
Division of Environmental Remediation, Remedial Bureau E
625 Broadway, 12th Floor
Albany, NY 12233-7017

Attn: Brianna Scharf
Assistant Engineer

Re: Corrective Measures Report
Sonia Road Landfill, West Brentwood
Suffolk County, Site No. 152013
D&B No. 5604

Dear Ms. Scharf:

Pursuant to your correspondence dated July 25, 2023, the Islip Resource Recovery Agency (IRRA) has retained the services of D&B Engineers and Architects (D&B) to examine the condition of the Sonia Road landfill capping system and its related features. The results of these on-site observations are presented herein as a Corrective Measures Report.

D&B prepared the remedial investigation and feasibility study (RI/FS) as well as the design for the landfill capping system. D&B also provided design services during construction of the landfill capping system. D&B continues to provide groundwater monitoring for the site and prepared the Periodic Review Report referenced above.

The periodic review report included a copy of the site inspection forms which were completed by agency personnel during a routine examination of the site. The inspection forms identified a number of perceived deficiencies based on the observations and background of the agency personnel. This evaluation is intended to assess each of those observations and to consider them in the perspective of the landfill cap design, its current integrity and ability to satisfy its intended function.

D&B personnel performing this evaluation and assessment were responsible for the design of the landfill capping system and the details and decisions associated with it.

The Sonia Road landfill is a 40-acre landfill which was successfully capped and closed in the early 2000s in accordance with the requirements of 6 NYCRR Part 360. The landfill site is currently utilized for the storage of new automobiles awaiting distribution by the respective dealers. This storage can accommodate up to approximately 5,000 vehicles arranged in a well defined layout. The site layout utilizes the vegetated cap area to park the vehicles and includes gravel roadways constructed above the site vegetation to facilitate the movement of vehicles. The vehicle storage plan involves the management of vehicle storage to minimize the effects of vehicle storage to the site vegetation as a result of the shade cast by the parked vehicles. The use of the site for vehicle storage was approved by NYSDEC. Site observations indicate that this approach has been very successful in maintaining the site vegetation without detriment to the capping system.

All aspects of the vehicle storage operation are non-intrusive to the landfill capping system and maintain appropriate buffer areas around key features. Site lighting has been added using above grade light stanchions that do not penetrate the capping system.

The examination of the site finds the integrity of the landfill capping system to be in very good condition and consistent with the design intent and implementation. As is normal for landfill capping systems, there is some localized subsidence due to the ongoing decomposition of the waste mass. This process results in the localized depressions. These depressions are consistent with the expectations of the capping design and do not compromise the site drainage patterns.

For the purpose of this discussion, the site is partitioned into a grid system to allow reference to geographic locations on the site. The site map is included as Figure 1. All site observations are keyed to this grid system. Each site observation is addressed in the attached pages with discussion and photographs, where appropriate.

While this report is termed a Corrective Measures Report in the context of Part 360, the findings of this assessment did not identify any conditions associated with the landfill capping system that require remedial action or repairs. The site is found to be well maintained owing to the ongoing use of the site for vehicle storage.

The assessment did concur with the Agency personnel with regard to the presence of two fallen trees along the southern property boundary which are leaning against the perimeter fence. It is recommended that the trees be removed and any damage to the fence be repaired. The function of the fence is not compromised and site security is not impacted.

We trust this report adequately clarifies the site inspection observations performed by the Agency personnel and resolves the need for a Corrective Measures Workplan.

Should you have any questions or comments regarding this matter, please feel free to contact this office.

Very truly yours

Edward J. Reilly
Associate

EJRt/RAP/kb
attachment
cc: A. Varrichio, IRRA
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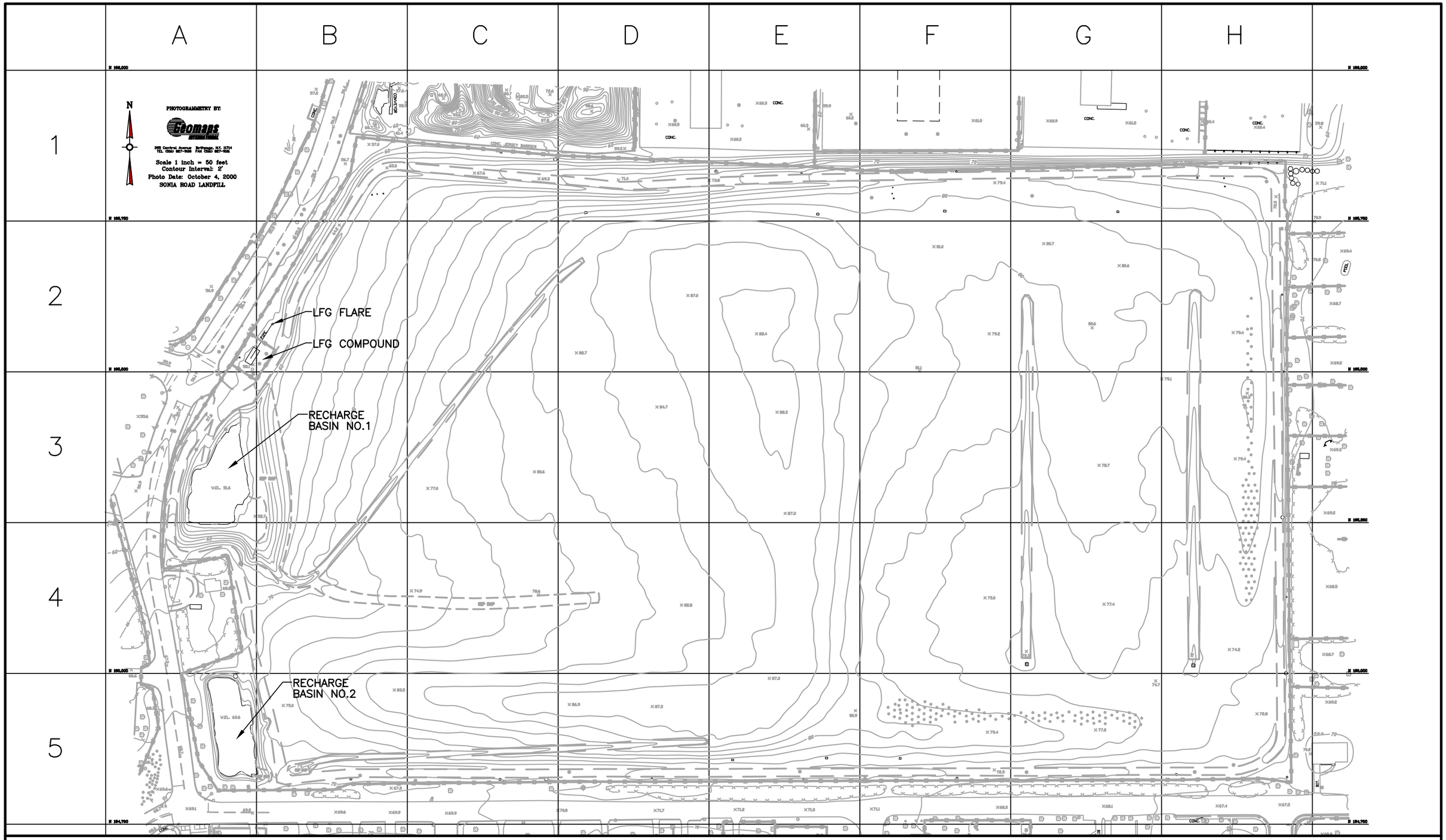

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

TOWN OF ISLIP
SONIA ROAD LANDFILL
POST CLOSURE MONITORING AND MAINTENANCE PLAN

INDEX MAP

SCALE: 1"=150'-0"

FIGURE 1

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Condition Observed: Vegetative Cover - Undesirable Growth
Grid Locations Observed: A3

Volunteer vegetation has established itself on the side slopes and bottom area of Recharge Basin No. 1. The vegetation is not detrimental to the function of the recharge basin and does not inhibit the function of the stormwater feature.

The vegetation is beneficial in that it minimizes erosion of the slopes and bottom area. Stormwater inlet and outlet structures are clear and functional.

No remedial action is required.

Recharge Basin No. 1 – Looking From Top Of Landfill Cap

Recharge Basin No. 1 – Looking From Top Of Landfill Cap

Recharge Basin No. 1 – At Inlet Culvert, Rip-Rap And Gabions In Front

Condition Observed: Vegetative Cover – Undesirable Growth
Grid Locations Observed: A5

Volunteer vegetation has established itself on the side slopes and bottom area of Recharge Basin No. 2. The vegetation is not detrimental to the function of the recharge basin and does not inhibit the function of the stormwater feature.

The vegetation is beneficial in that it minimizes erosion of the slopes and bottom area. Stormwater inlet and outlet structures are clear and functional.

No remedial action is required.

Recharge Basin No. 2 Looking East, Inlet Rip-Rap in Lower Right Hand Corner of Photo.

Condition Observed: Soil Cover – Slope Movement
Grid Locations Observed: F4

An examination of the landfill capping system does not detect slope movement as would be suggested by slope or capping system failure. The examination did find that the landfill has experienced some settlement as is expected due to the ongoing decomposition of the waste mass beneath the landfill cap.

It is important to note that the grading associated with the capping of the landfill site was performed under a variance to 6 NYCRR Part 360 to allow for minimum slopes of 2% in lieu of 4%. The variance facilitated the grading of the site. The existing grading of the site did not permit a cut and fill movement of waste on site to achieve the desired slopes. The flatter slopes substantially reduced the importation of fill to achieve the prescribed grades. The flatter slopes will make the occurrence of settlement to appear to be more visually acute.

The design of the landfill capping system and the stormwater management associated with it relies on the function of the geocomposite drainage layer immediately above the geomembrane to convey any stormwater which has infiltrated the capping system to the designated stormwater management facilities. The flatter slopes associated with this site promote the infiltration of stormwater into the capping soils above the geomembrane. The geocomposite drainage layer provides a hydraulic conveyance to mitigate the impoundment of water on the geomembrane.

Examination of the landfill capping system documents the ongoing function of the capping system given that the surface soils are found to be intact and have not shifted or moved. The surface soils do not show any signs of having become quick due to impoundment of water in the soils.

Following the capping of the landfill, the site has been used for compatible use as a storage facility by several car dealerships for the storage of new passenger vehicles. In order to facilitate the movement of vehicles on the landfill surface, a series of gravel roads were constructed in a grid pattern to define roads and storage areas. The addition of the road surface creates a rise in the ground surface which may inhibit overland flow of stormwater but would not inhibit lateral migration of the water in the layers of the landfill capping system.

Settlement of the landfill surface is to be expected due to decomposition as well as the settlement of the waste mass due to the passage of time. The observations made at the site do not provide a cause for concern and no remedial action is required.

Landfill Cap Area – Area of Stored Vehicles

Landfill Cap Area – Area of Stored Vehicles

Condition Observed: Soil Cover - Ponding (greater than 10’ x 10’)
Grid Locations Observed: F4

As noted above, the post closure use of the landfill property for the storage of new automobiles has resulted in the creation of a gravel road system which was installed above the existing landfill capping system. The addition of the road surfaces reveals itself as high points adjacent to vegetated portions of the landfill cap. The high points may inhibit overland flow of stormwater resulting in localized ponding of water on the vegetated surface. As shown in the photograph below, there is some deterioration of the vegetation due to ponding water, but the impact of this condition is localized and does not alter the function of the capping system. If the vegetation does not re-establish itself over time, remedial action to reseed may be required.

Landfill Cap Area – Minor Damage to Vegetation Due to Ponding, Not Subject to Erosion

Condition Observed: Rip Rap - Side Slopes - Settlement
Grid Locations Observed: C5

The side slope cap area of Grid C5 was examined and found to be in good condition, without any signs of distress or disturbance to the capping system. The grid is located within the area of the waste mass and may exhibit some localized settlement due to waste decomposition and/or subsidence. However, as seen in the photograph below, the area maintains the intended slope to promote drainage from the center towards the periphery and does not exhibit any detrimental conditions relative to the cap integrity.

In light of these observations, there are no remedial actions required at this time.

Landfill Cap Area – Side Slope Areas Maintain Desired Inclination

Landfill Cap Area – Side Slope Areas Maintain Desired Inclination

Condition Observed: Rip Rap - Side Slopes - Settlement
Grid Locations Observed: H1 – H5

The side slope cap area of Grids H1 – H5 was examined and found to be in good condition, without any signs of distress or disturbance to the capping system. The grids are located within the area of the waste mass and may exhibit some localized settlement due to waste decomposition and/or subsidence. However, as seen in the photographs below, the area maintains the intended slopes to promote drainage to the periphery and towards the central drainage swale and does not exhibit any detrimental conditions relative to the cap integrity.

In light of these observations, there are no remedial actions required at this time.

Perimeter road at eastern property boundary. V swale and vegetation at edge of perimeter road. The landfill cap extends to the outboard edge of perimeter road.

Landfill Cap Area – Side Slope Areas Maintain Desired Inclination

Landfill Cap Area – Side Slope Areas Maintain Desired Inclination

Condition Observed: Access Roads - Depressions
Grid Locations Observed: C5

The perimeter road along the south boundary of the property exhibits some undulation in the road surface. It must be noted that the perimeter road is located within the area of the waste mass and is included in the capped area. See attached figure showing limits of the landfill capping system. Due to the proximity of the perimeter road to the site boundary and the attempts to maintain as much of the site buffer vegetation along the property boundary/fence line, the grade of the perimeter road mirrors the existing grades of the adjacent buffer areas. Consequently, the perimeter road exhibits high and low areas that are not detrimental to the function of the perimeter road or the underlying capping system.

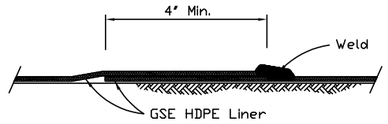
As seen in the photograph below, the current grade remains flush with the top of the concrete manhole (as originally constructed) which is associated with a 36-inch diameter drain pipe below.

In light of the conditions, no remedial repairs are required in this area.

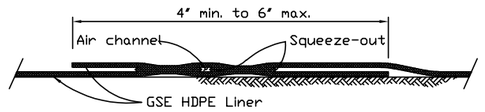
Perimeter Road Along Southern Property Boundary, Looking West.

Perimeter Road along southern property boundary, looking west.
Undulation in road surface mirrors the grading of the existing vegetated buffer area along the fence line (to the left in this photograph)

JOB/SHT/REV

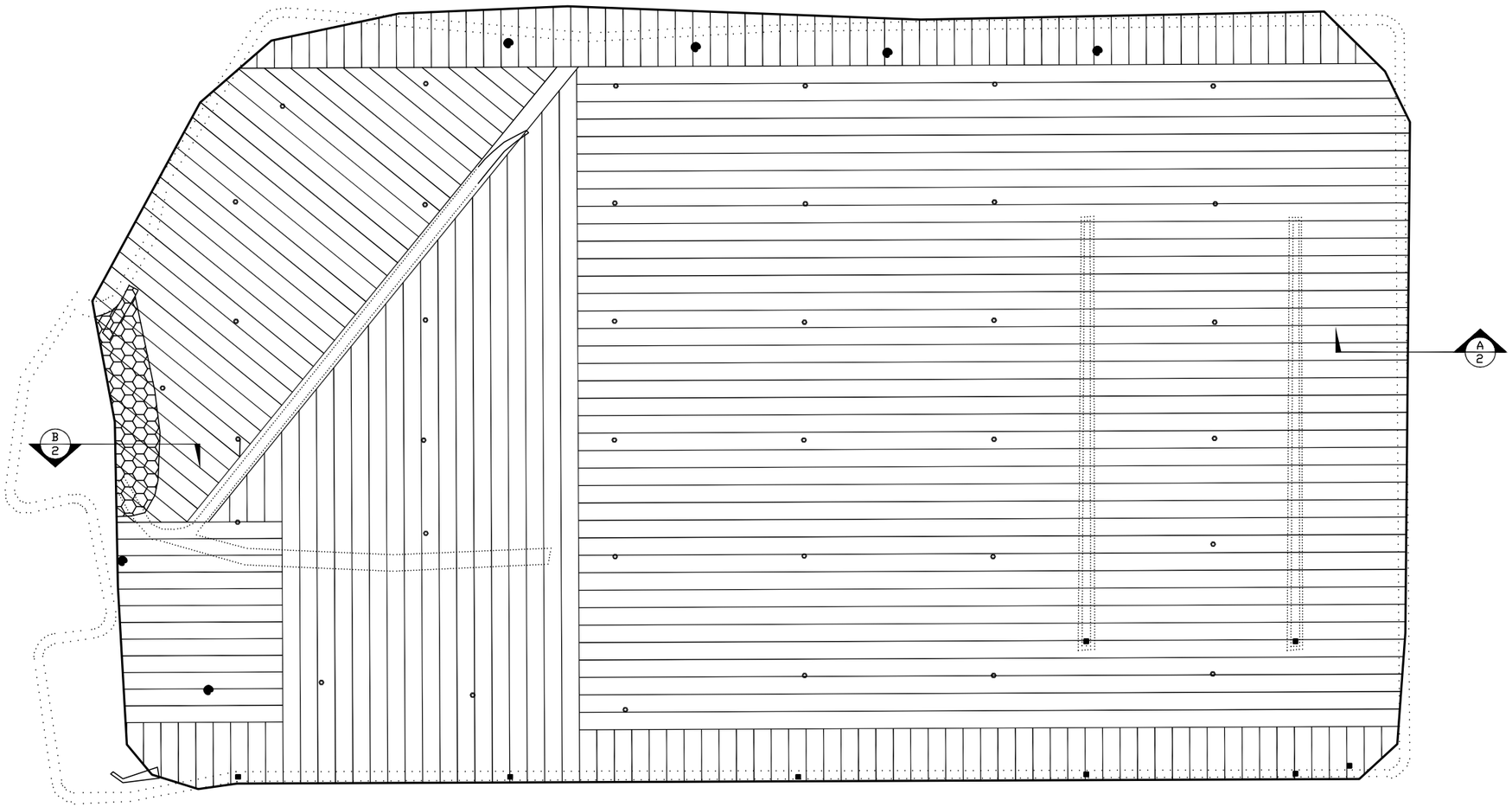


Typical Fillet Extrusion Weld
Not to scale



Typical Hot Wedge Double Track Fusion Weld
Not to scale

0 40 80 160



LEGEND

- WELDED SEAMS
- DETAIL OR SECTION DRAWING NUMBER (? / X)
- GAS COLLECTION WELL
- GAS RECOVERY WELL
- MANHOLE/CATCH BASIN
- GUNDSEAL

GENERAL NOTES

1.) ALL EARTHWORK BY OTHERS.
2.) ALL PIPEWORK BY OTHERS.
3.) ALL CONCRETE WORK BY OTHERS.
   A. ALL CONCRETE CORNERS IN CONTACT WITH LINER SHALL BE CHAMFERED TO A MINIMUM OF 1" SQUARE.
   B. ALL CONCRETE SHALL BE STEEL TROWEL FINISHED.
4.) EXCAVATION AND BACKFILL OF ANCHOR TRENCH BY OTHERS.
   ALL ANCHOR TRENCH BACKFILL TO BE COMPACTED BY OTHERS.
5.) LINER LAYOUT SHOWN MAY VARY TO ACCOMMODATE FIELD CONDITIONS. (TO BE DETERMINED BY GSE SITE MANAGER WITH APPROVAL OF ENGINEER.)
6.) GAS VENTING BY GSE NOT REQUIRED.
7.) ALL LINER DESIGN CHANGES TO BE REVIEWED BY GSE BEFORE INITIATING CONSTRUCTION.
8.) FINAL AREA TO BE DETERMINED PER GSE FIELD MEASUREMENTS AND SHALL INCLUDE THE LINER INSTALLED IN THE ANCHOR TRENCH.

nOTE: PANEL LAYOUT SHOWN IN PLAN VIEWS ARE CONCEPTUAL ONLY AND ARE SUBJECT TO CHANGES PRIOR TO OR DURING INSTALL-ATION AT THE DISCRETION OF THE GSE SITE MANAGER WITH APPROVAL OF THE ENGINEER

GSE Lining Technology, Inc.
19103 Gundle Road
Houston, Texas 77073
800-435-2008 281-443-8564

CUSTOMER
PROJECTNAME
CITY STATE

REV.	DATE	DESCRIPTION	BY
1REV	1REVDT	1REVDESC	
2REV	2REVDT	2REVDESC	
3REV	3REVDT	3REVDESC	

SCALE	DATE	REVISION NO.
SCALE		REVISION

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Condition Observed: Stormwater Collection System – Slope Movement
Grid Locations Observed: Perimeter Swales - H1 – H5

Grid line H1 through H5 is located along the eastern boundary of the property. A shallow V swale is located on the inboard edge of the perimeter road. A formal drainage swale is located in the interior area of the grid line and provides drainage, along with a second swale located in grid line G2 - G4, to approximately one third of the capped landfill area. The two swales are joined by underground stormwater piping which flows to the south perimeter road and then west to Recharge Basin No. 2.

The V swale was found to be intact, functional and vegetated with no signs of erosion or deterioration. There are no remedial actions required for the V swale.

The interior side slopes of the landfill cap are found to consistently maintain their slope towards the interior drainage swales. There were no signs of cap disturbance, failure or undue settlement. As noted above, settlement of the capping system is to be expected due to the decomposition of the waste mass. This condition is addressed in the design by the incorporation of a geocomposite drainage layer through the entire area of the landfill cap. The geocomposite drainage layer conveys subsurface stormwater to defined stormwater management features such as swales and recharge basins

In light of these observations, no remedial repairs are required.

Vegetated V swale along eastern perimeter road. Property fence to the right of the road area.

Vegetated Drainage Swale in Grid Line H1 - H5

Condition Observed: Stormwater Collection System - Vegetative Cover
Grid Locations Observed: Diversion Swale - C4

The diversion swale was constructed as part of the landfill capping system to address an area where two sloping drainage areas converged in a crease or line of concentration. The diversion swale was constructed using crushed stone as the full depth medium above the geomembrane to create a pervious conveyance that was not subject to inundation or becoming quick due to the convergence of flows. The vegetation adjacent to the drainage swales is volunteer vegetation that is not detrimental to the function of the drainage swale.

In light of these observations, there is no remedial activity required.

Diversion Swale

Diversion Swale Leading To Recharge Basin No. 1

Condition Observed: Stormwater Collection System – Slope Movement
Grid Locations Observed: Drywells – C5

The concrete structures referenced in the field notes pertain to a manhole structure associated with the underlying 36-inch diameter drainage pipe.

The structures are not drywells and should be referred to as drainage manholes.

The manholes were constructed to be flush with the surface of the perimeter road and as shown in the photograph below, there is no appreciable settlement occurring at or adjacent to the manhole structure.

In light of these observations, there is no remedial activity required.

Perimeter road at southern boundary. Undulation in road surfaces matches existing grades in the vegetated buffer to the right which was not disturbed during the capping process.

Condition Observed: Stormwater Collection System – Soil Erosion Around
Grid Locations Observed: Culverts/Outlets – B3

The inlet culvert to Recharge Basin No. 1 is shown in the photographs below. The inlet pipe and the area surrounding the pipe do not show any undue deterioration or compromise. The pipe is not obstructed and there is no indication of diminished capacity.

The vegetation surrounded the inlet piping is sufficiently maintained to allow for proper operation.

On the basis of these observations, there is no remedial activity required.

Recharge Basin No. 1 – Inlet Culvert, Rip-Rap and Gabions to Rear

Recharge Basin No. 1 – Inlet Culvert, No Noticeable Erosion

Condition Observed: Recharge Basins - Vegetation
Grid Locations Observed: Recharge Basin No. 1 – A3

Volunteer vegetation has established itself on the side slopes and bottom area of Recharge Basin No. 1. The vegetation is not detrimental to the function of the recharge basin and does not inhibit the function of the stormwater feature.

The vegetation is beneficial in that it minimizes erosion of the slopes and bottom area. Stormwater inlet and outlet structures are clear and functional.

No remedial action is required.

Recharge Basin No. 1 – Looking From Southwest Corner.

Recharge Basin No. 1 – Looking From Northeast Corner.

Condition Observed: Recharge Basin - Vegetation
Grid Locations Observed: Recharge Basin No. 2 – A5

Volunteer vegetation has established itself on the side slopes and bottom area of Recharge Basin No. 2. The vegetation is not detrimental to the function of the recharge basin and does not inhibit the function of the stormwater feature.

The vegetation is beneficial in that it minimizes erosion of the slopes and bottom area. Stormwater inlet and outlet structures are clear and functional.

No remedial action is required.

Recharge Basin No. 2 – Looking From the Southeast Corner

Condition Observed: Monitoring Wells - Settlement
Grid Locations Observed: Landfill Gas Monitoring Well No. 5

The above grade surface casing for the site landfill gas monitoring wells have provisions for telescopic adjustment to accommodate settlement at or in the vicinity of the monitoring well. The observed settlement is at the edges of the concrete surface pad and is not detrimental to the function of the landfill gas monitoring well.

In the event that continued settlement is realized at the well, the set screws on the outer casing can be loosened and the casing slid up over the inner steel casing to maintain sufficient height within the surface casing to accommodate the well. A photograph depicting the outer and inner surface casing and the adjustable set screws is provided below.

In light of these observations, no remedial action is required at this time.

Example of height adjustment available on landfill monitoring well housings.

Condition Observed: Soil Erosion Around
Grid Locations Observed: LFG Recovery Wells / Valve Vaults 18

The concrete vault associated with the landfill gas recovery wells extends below the grade surface to house the landfill gas recovery wellhead and valve. Minor surface erosion at or in the vicinity of the vault is not detrimental to the function of the recovery well.

Condition Observed: Settlement
Grid Locations Observed: LFG Collection Well No. 5

The concrete vault associated with the landfill gas recovery wells extends below the grade surface to house the landfill gas recovery wellhead and valve. Minor surface erosion at or in the vicinity of the vault is not detrimental to the function of the recovery well.

Condition Observed: Mechanical Noise (Minor oil leak)
Grid Locations Observed: LFG Blowers 104A and 104B

Routine maintenance and repair is required for all mechanical equipment and should be addressed as part of the site operations and maintenance program. If the scope of the repair exceeds the capacity of the Town forces, then outside services should be utilized.

Condition Observed: Broken Valve
Grid Locations Observed: LFG Blowers 104A and 104B

Routine maintenance and repair is required for all mechanical equipment and should be addressed as part of the site operations and maintenance program. If the scope of the repair exceeds the capacity of the Town forces, then outside services should be utilized.

Condition Observed: Fencing (tree leaning on fence)
Grid Locations Observed: D5

In two locations along the southern fence line of the property, a dead tree has fallen over and is leaning on the property fence. In each case, the fence is not compromised and site security is not impacted.

Site maintenance should cut the tree(s) to relieve the forces on the fence. It should be noted that the fence was installed within the existing stand of trees along the southern property line. The proximity of the adjacent trees to the fence will minimize any likelihood that the fence will fall down.

Fallen tree along southern property boundary.

Fallen tree along southern property boundary.

Condition Observed: Fencing Damage (repaired)
Grid Locations Observed: H1

As noted, the portion of fence which was identified by the site inspection has been repaired and no further action should be required.