# Fall 2018
# Baseline Semi-Annual Monitoring Event
# Water Quality Monitoring Report

Location:

Ischua Landfill
Olean, New York
(NYSDEC Facility ID #05S20)

Prepared for:

City of Olean
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## 1.0 INTRODUCTION

LaBella Associates, D.P.C (LaBella) was retained by the City of Olean to provide sampling, analysis, and reporting services associated with water quality monitoring at the closed Ischua Landfill (site). Groundwater monitoring is conducted at the site in accordance with Order on Consent 89-92 issued by the New York State Department of Environmental Conservation (NYSDEC) and the December 1990 Sampling and Analysis Plan (SAP) with subsequent modifications in 1991 and 1995. These modifications, as well as other modifications to the SAP, are discussed in detail in Section 2.0.

This report presents the results of the Fall 2018 Baseline Semi-Annual Monitoring Event conducted for twelve monitoring wells and two surface water points at the site. This report provides a brief discussion of the relevant background information, describes the sample collection procedures, presents the analytical results, and provides a summary and conclusions for the work conducted.

## 2.0 BACKGROUND INFORMATION

The Ischua Landfill is located near the Olean municipal airport in the Town of Ischua, New York, as shown on Figure 1. The landfill consists of three parallel trenches approximately 15 feet deep and 50 feet wide that range from 800 feet to 1,300 feet in length (see Figure 2). The landfill operated from 1972 to 1975. When the landfill was closed, the landfill cover consisted of approximately six inches of topsoil. In an effort to control seeps, the landfill cover was improved with 18 inches of compacted clay and six inches of topsoil, as reported in January 1986. The improved cover reduced the seepage volume but did not completely eliminate the seeps.

In response to renewed concerns by the NYSDEC regarding the seeps, a hydrogeologic investigation program was performed at the site from November 1989 through March 1990. Subsequently, the City developed an appropriate course of action for controlling the seepage breakouts. As required by the NYSDEC, the City also initiated a program of quarterly monitoring at the site in September 1990. The samples were analyzed for the Title 6 New York Codes, Rules and Regulations (6NYCRR) Part 360-2.11(d)(6) Baseline Parameters plus volatile organic compounds (VOCs). Following submission of the Baseline Sampling Report, a SAP dated December 4, 1990 was issued for the continued quarterly groundwater monitoring at the landfill site. The SAP was approved by the NYSDEC in a letter dated December 12, 1990. The quarterly sampling at the site continued in accordance with the approved SAP from September 1990 to September 1991.

In the September 1991 Baseline Sampling Report, several modifications to the approved SAP were recommended. These proposed modifications were as follows:

a. The site's contingency water quality monitoring requirements of quarterly analysis for VOCs was proposed to be removed from the SAP and replaced by the standard routine and baseline analysis program which would have required VOC analysis only during the annual baseline sampling event.
b. Six sampling points were proposed to be removed from the SAP. These sampling points had primarily been either dry during previous sampling events or had not resulted in elevated levels of analytes of concern. These points were: MW-6B, MW-7C, MW-8A, MW-9A, MW-10A, and MW-11A.
c. The tabular listing of current and past sampling results in the quarterly and the annual reports was proposed to be replaced with time/concentration plots of selected parameters.

Items b and c of the proposed modifications were later approved by the NYSDEC. With respect to Item a, the NYSDEC did not agree with elimination of the site's contingency water quality

requirements but approved a reduction in the frequency of sampling for VOCs from quarterly to semi-annually.

After the submittal of the June 1994 Quarterly Report, it was requested that the current time/concentration plots of selected parameters be replaced with tabular historical data tables from each monitoring point. This request was approved by the NYSDEC.

Furthermore, it was requested in November 1995 that the sampling frequency for all parameters at the site be reduced from quarterly to semi-annually, based upon a statistical evaluation of the previous five years of groundwater monitoring data. The statistical evaluation of the site data revealed that total VOC concentrations for all sampling points had remained constant or decreased with time. The NYSDEC agreed with the request in 1996.

## 3.0 SAMPLE COLLECTION PROCEDURES

### *3.1 General Discussion*

LaBella performed the Fall 2018 Monitoring Event sampling activities on September 11 and 12, 2018. All sampling activities were completed in general accordance with the approved SAP dated December 4, 1990 and subsequent NYSDEC-approved modifications. All samples collected from the site were analyzed for the 6NYCRR Part 360-2.11(d)(6) Baseline Parameters plus Baseline VOCs. However, MW-6A was dry, precluding sample collection from this location. Additionally, MW-6D, MW-9B and MW-12A contained insufficient water volume for the full parameter list, thus the parameters analyzed were limited to the following:

- MW-6D: Total organic carbon (TOC), VOCs, metals, and total hardness
- MW-9B: TOCs, VOCs, metals, chemical oxygen demand (COD), ammonia-nitrogen, nitrate-nitrogen, total kjeldahl nitrogen (TKN), total hardness, and total phenols
- MW-11B: VOCs, biochemical oxygen demand (BOD), chloride, sulfate, total dissolved solids (TDS), and TOC
- MW-12A: VOCs, BOD, chloride, sulfate, TDS, and TOC

The sample locations for the monitoring wells and the surface water samples are shown on Figure 2. The following paragraphs describe the sample collection procedures and field documentation protocols that were followed.

### *3.2 Groundwater Sample Collection Procedures*

Purging and sampling of the monitoring wells was performed utilizing dedicated disposable polyethylene bailers, and non-absorbent nylon rope was used to lower the bailers into the wells.

Prior to purging, the depth to water in the well was measured to the nearest 1/100$^{th}$ of a foot using an electronic water level indicator. As detailed in the approved SAP, purging is performed in an attempt to obtain a turbidity value of under 50 nephelometric turbidity units (NTUs) prior to sampling. If the turbidity value is greater than 50 NTUs, a filtered metals sample must be collected. The turbidity values recorded during this monitoring event were below 50 NTUs at the time of sample collection. Due to insufficient volumes at the time of sample collection turbidity values were not recorded for MW-6D, MW-9B, and MW-12A. Alternatively, the turbidity values recorded during purging of these locations were utilized. The recorded turbidity values for MW-6D and MW-12A exceeded 50 NTUs. Due to insufficient volume at the time of sample collection only a total metals sample was collected from MW-6D and no metals samples were collected from MW-12A.

The monitoring wells were purged a minimum of three well volumes or until dry. In general, purging was intended to be performed such that the water level in the well would not fall below the top of the sand pack. However, because the static water level in some of the wells was below the top of the sand pack, this criterion was not always achieved. Table 1 lists the depth of each monitoring well in addition to the elevation of groundwater in each well. Field Sampling Logs are presented in Appendix A.

After purging, groundwater samples were collected from each well (with the exception of the wells that were dry, as identified in Section 3.4) at the site and placed in laboratory-prepared sample containers. The sample containers were then placed in insulated coolers filled with ice and transported under proper chain-of-custody procedures by courier directly to the analytical laboratory, Pace Analytical Services (Pace), in Melville, New York.

### *3.3 Surface Water Sample Collection Procedures*

Two surface water samples (STREAM and SEEP), are typically collected during each semi-annual sampling event. These sample locations are shown on Figure 2. The SEEP and STREAM samples were collected by direct submersion of a dedicated unpreserved sample bottle into the surface water. A dedicated, unpreserved sampling bottle was used to collect the surface water samples from these locations in order to fill sample bottles containing preservatives. Care was taken to not disturb the sediment during sample collection. The filled sample bottles were transported to the laboratory under chain-of-custody using the procedures described in Section 3.6.

### *3.4 Field Parameter Measurements*

Field parameters including pH, specific conductance, oxidation reduction potential (ORP), temperature, and turbidity were measured for each sample point and the results were recorded on the field sampling logs presented in Appendix A. Due to insufficient water volume, field parameters were not measured for MW-6A (this locations were ultimately dry). A summary of the field parameters by sample point is included in Table 2.

### *3.5 Quality Assurance/Quality Control*

For quality assurance/quality control purposes, a blind field duplicate sample was collected and analyzed. The blind field duplicate was collected from MW-10B and analyzed for Baseline Parameters. The blind field duplicate sample was designated as “DUP” on the chain-of-custody form and in the laboratory report from Pace.

### *3.6 Shipping and Chain-of-Custody*

Sample containers were labeled in the field, placed on ice, and shipped by courier using properly signed seals to Pace under chain-of-custody protocols. The samples were relinquished to the courier provided by Pace the day of sample collection. Appendix B presents the completed chain-of-custody records for this semi-annual monitoring event.

### *3.7 Health and Safety*

Sampling personnel wore Level D personal protective equipment including nitrile gloves during well purging and sampling activities. No health and safety concerns were noted during sampling.

# 4.0 DATA VALIDATION

## 4.1 Data Validation

Data validation consisted of an internal validation by Pace. The internal data validation performed by Pace focused on holding times, calibration criteria, method blanks, reference samples, matrix spike/matrix spike duplicate (MS/MSD) samples, and surrogate recoveries. The results of these efforts are presented in the Pace Analytical Report included in Appendix C. The internal validation showed that the analytical results generated during this semi-annual monitoring event are generally usable in all cases. Only minor QA/QC issues were identified and do not impact the usability of the data for the Fall 2018 Monitoring Event.

## 4.2 Quality Assurance/Quality Control

### 4.2.1 Duplicate

The sample designated "DUP" is a duplicate of the MW-10B sample. The duplicate results are generally consistent (within 1.5 times) with the sample results with the following exceptions.

- Vinyl chloride was detected in the DUP but was not detected in MW-10B.
- Chromium was detected in the DUP but was not detected in MW-10B.
- Mercury was detected in MW-10B but was not detected in the DUP.
- Thallium was detected in MW-10B but was not detected in the DUP.
- BOD was detected in MW-10B but was not detected in the DUP.
- Total Hardness was detected in MW-10B at a concentration 13.1 times greater than in the DUP.

Vinyl chloride in the DUP and total hardness in MW-10B were detected at concentrations within the historical ranges for MW-10B.

### 4.2.2 Trip Blank

The laboratory analytical results for the TRIP BLANK sample were non-detect for all VOC parameters.

# 5.0 ANALYTICAL RESULTS

## 5.1 General Discussion

Table 3 summarizes the results for each of the groundwater samples collected from the site. Results that are shaded in Table 3 are reported at or above regulatory levels for groundwater established in 6NYCRR Part 703.5 Water Quality Regulations for Groundwater (6NYCRR standards) as amended in April 1999. For parameters for which a standard was not adopted, the guidance values presented in the NYSDEC June 1998 Technical and Operations Guidance Series (TOGS) 1.1.1 were utilized. The following sections briefly describe this event's analytical results with respect to the above-mentioned water quality standards.

Additionally, although the SEEP and STREAM data have also been compared to the 6NYCRR groundwater standards, the comparison was made for purpose of continuity only; the 6NYCRR groundwater standards are not technically applicable to these data. In addition, the duplicate sample is not discussed in the following section. Refer to Section 4.2.

## 5.2 Summary of Results

### 5.2.1 Volatile Organic Compound Results

The analytical results for the Fall 2018 Monitoring Event are summarized in Table 3. No VOCs were detected above the applicable water quality standards in the samples collected from MW-6D, MW-7A, MW-7C, MW-9B, MW-11B, MW-13, MW-14, and STREAM. The VOC concentrations that exceeded the applicable water quality standards are summarized below:

- *Benzene* was reported above the 6NYCRR standard of 1.0 µg/L in MW-12A and MW-12B at concentrations of 5.2 µg/L and 5.8 µg/L, respectively.
- *Chlorobenzene* was reported above the 6NYCRR standard of 5.0 µg/L in three samples (MW-8B, MW-12A, and MW-12B) at concentrations of 6.6 µg/L, 8.1 µg/L, and 7.0 µg/L, respectively.
- *1,1-Dichloroethane* was reported above the 6NYCRR standard of 5.0 µg/L in MW-10B at a concentration of 9.5 µg/L.
- *cis-1,2-Dichloroethene* was reported above the 6NYCRR standard of 5.0 µg/L in three samples (MW-8B, MW-10B, and SEEP) at concentrations of 6.7 µg/L, 38.2 µg/L, and 9.6 µg/L, respectively.

The concentrations of these analytes detected in these locations were within historical ranges.

### 5.2.2 Inorganic Parameters

The concentrations of inorganic analytes were reported below applicable regulatory values, with the exception of the results discussed below.

- *Antimony* was reported above the 6NYCRR standard of 0.003 mg/L in MW-13 at a concentration of 0.0035 mg/L.
- *Arsenic* was reported above the 6NYCRR standard of 0.025 mg/L in three samples (MW-6D, MW-7A, and SEEP): exceedances ranged in concentrations from 0.0288 mg/L to 0.0626 mg/L.
- *Iron* was reported above the 6NYCRR standard of 0.3 mg/L in seven samples (MW-6D, MW-7A, MW-8B, MW-9B, MW-10B, MW-12B, and SEEP): exceedances ranged in concentrations from 0.865 mg/L to 63.4 mg/L.
- *Lead* was reported above the 6NYCRR standard of 0.025 mg/L in MW-6D at a concentration of 0.126 mg/L.
- *Magnesium* was reported above the 6NYCRR standard of 35 mg/L in MW-6D at a concentration of 35.1 mg/L.
- *Manganese* was reported above the 6NYCRR standard of 0.3 mg/L in eight samples (MW-6D, MW-7A, MW-7C, MW-8B, MW-9B, MW-10B, MW-12B, and SEEP): exceedances ranged in concentrations from 0.658 mg/L to 12.7 mg/L.
- *Thallium* was reported above the 6NYCRR standard of 0.0005 mg/L in four samples (MW-6D, MW-7A, MW-8B, and MW-10B): exceedances ranged in concentrations from 0.005 to 0.0145 mg/L.

The concentrations of these analytes were within historical ranges for these monitoring points with the exception of arsenic in MW-6D and thallium in MW-10B. Arsenic in MW-6D was detected at a concentration representing a historical maximum concentration. Arsenic in MW-6D was only previously detected in the Fall 1992 sampling event. Thallium in MW-10B was detected at a concentration only slightly exceeding (1.5 times greater) the previous historical maximum concentration. LaBella will continue to evaluate these parameters at these locations during future sampling events to identify if any potential trends.

### 5.2.3 *Leachate Indicator Parameters*

Leachate indicator parameters were reported below applicable 6NYCRR standards with the exception of the results discussed below.

- *Color* was reported above the 6NYCRR standard of 5 Units in six samples (MW-7A, MW-7C, MW-8B, MW-12B, and SEEP): exceedances ranged in concentrations from 15 Units to 125 Units.
- *Ammonia-Nitrogen* was reported above the 6NYCRR standard of 2.0 mg/L in MW-12B and SEEP at concentrations of 2.2 mg/L and 3.0 mg/L, respectively.
- *Total Phenols* was reported above the 6NYCRR standard of 0.001 mg/L in nine samples (MW-7A, MW-8B, MW-9B, MW-10B, MW-12B, MW-13, MW-14, SEEP, and STREAM): exceedances ranged in concentrations from 0.0043 mg/L to 0.0274 mg/L.

The concentrations of these analytes were all within historical ranges for these monitoring points.

### 5.2.4 *Comparison of Sampling Results*

A tabular listing of the historical data associated with the permanent monitoring network is presented in Appendix D and includes historical data from September 1990 to the present for all monitoring points at the site. Included on each table is a mean concentration and current 6NYCRR groundwater standard for all analytes (both organic and inorganic) at each monitoring point. Historic exceedances of the water quality standards identified in the tables in Appendix D are related to the 6NYCRR standards in effect at the time of sampling, which may not be the standards currently in effect.

## 6.0 SUMMARY AND CONCLUSIONS

The results of the Fall 2018 Monitoring Event appear generally consistent with the results from the previous sampling events at the site. The next semi-annual sampling event is scheduled for the Spring of 2019.

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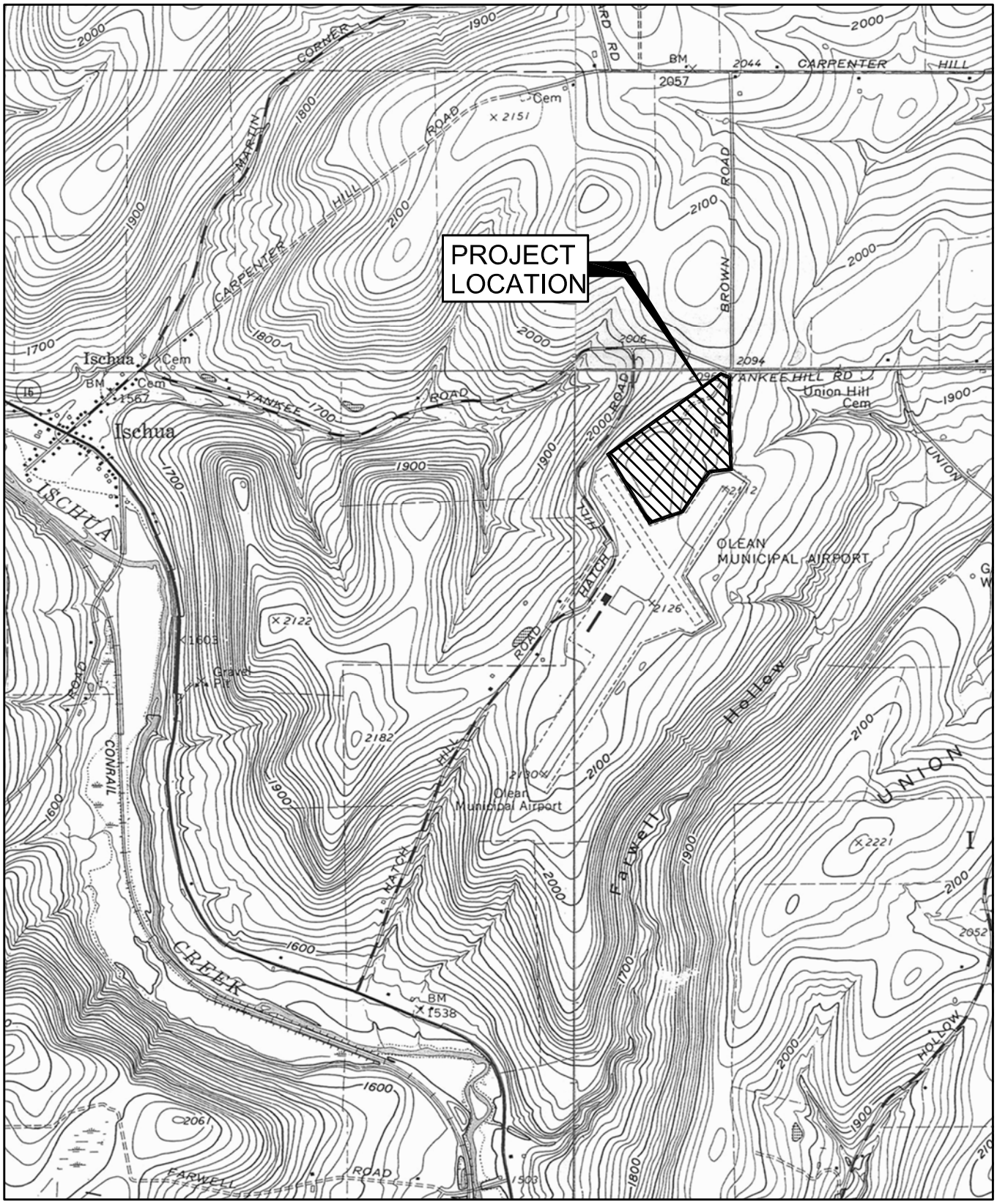
# FIGURES




ROAD CLASSIFICATION

Heavy-duty — Light-duty

Medium-duty — Unimproved dirt

State Route

USGS QUADRANGLES – CUBA, FRANKLINVILLE, HINSDALE AND RAWSON, NEW YORK

GRAPHIC SCALE

2000 0 1000 2000

( IN FEET )

1 inch = 2000 ft.

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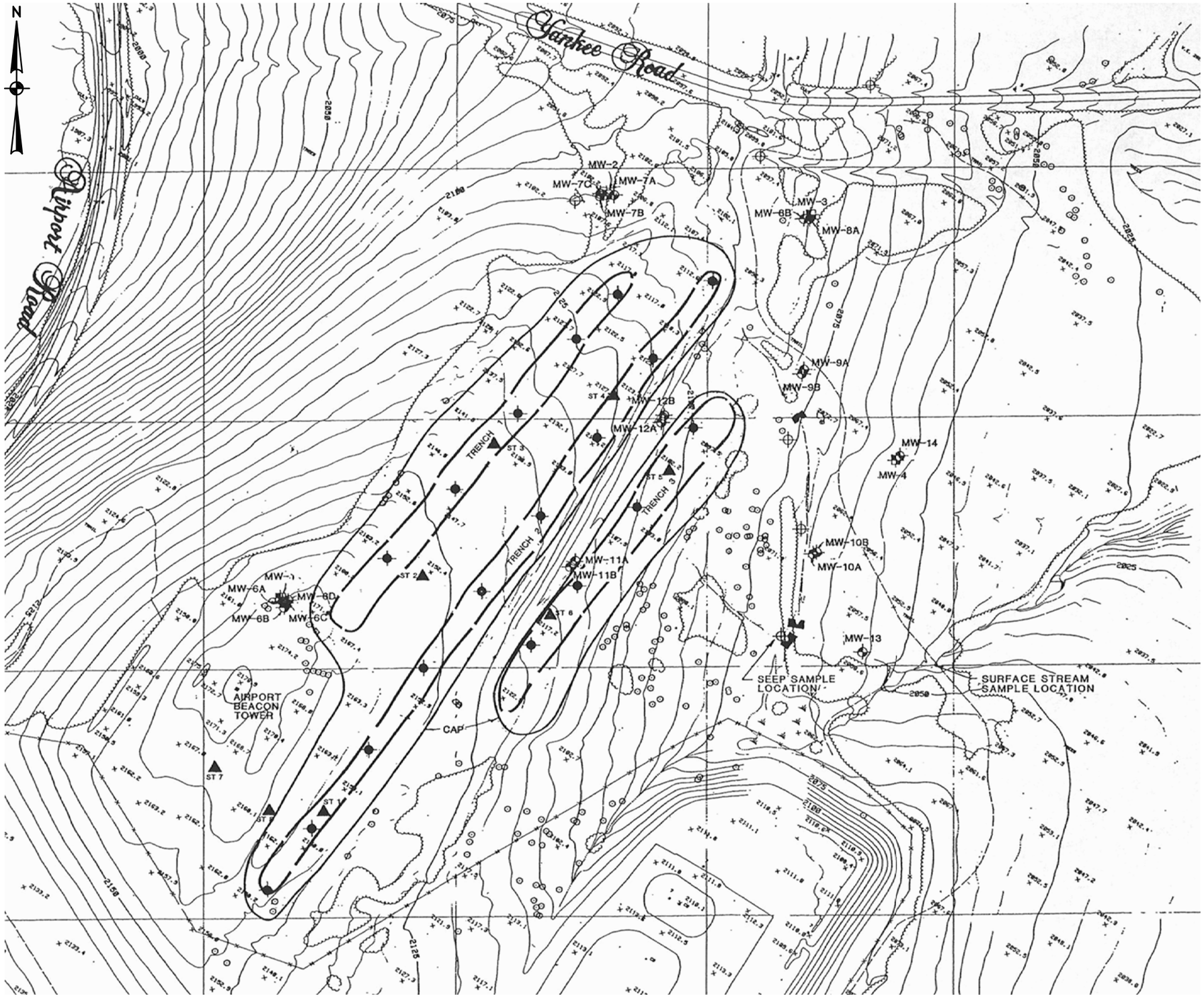
ISCHUA LANDFILL

**FIGURE 1**

SITE LOCATION MAP

File: J:\Olean, City of\2181366 – 2018 Ischua Landfill Monitoring\Reports\2018 Spring\Figure 1– USGS Site Location Map.dwg, Plot Date: 6/20/2018, By: BENKLEMAN, ANDREW, Plot Style: LABELLA.CTB




LEGEND

- MONITORING WELL (URS)
- MONITORING WELL (EIL)
- SEEP
- GAS WELL
- CLAY CAP (APPROXIMATE)
- TRENCH (APPROXIMATE)
- SHELBY TUBE SOIL SAMPLE LOCATION
- WEIR

200 0 100 200

1 inch = 200 ft.

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ISCHUA LANDFILL

**FIGURE 2**

SITE BASE MAP AND ENVIRONMENTAL MONITORING LOCATIONS

File: J:\Olean, City of\2181366 – 2018 Ischua Landfill Monitoring\Reports\2018 Spring\Figure 2 Site Map.DWG, Plot Date: 6/20/2018, By: BENKLEMAN, ANDREW, Plot Style: LABELLA.CTB

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# TABLES

# TABLE 1

## Ischua Landfill
## Fall 2018
## Summary of Monitoring Well and Groundwater Depths

| Monitoring Well No. | Top of Casing Elevation | Depth to Well Bottom | Historical Elevations Oct-17 | Historical Elevations May-18 | Depth to Water Sep-18 | Elevation of Water Sep-18 | Compared to Last Event | Compared to Last Year |
|---|---|---|---|---|---|---|---|---|
| MW-6A | 2173.1 | 17.19 | NA | NA | NA | NA | NA | NA |
| MW-6D | 2173.7 | 103.14 | NA | 2082.7 | 101.0 | 2072.7 | NA | NA |
| MW-7A | 2109.3 | 11.64 | 2100.7 | 2104.3 | 7.9 | 2101.4 | -2.9 | 0.70 |
| MW-7C | 2109.3 | 40.3 | 2072.10 | 2081.30 | 33.7 | 2075.60 | -5.7 | 3.50 |
| MW-8B | 2089.6 | 28.65 | 2073.6 | 2076.1 | 14.3 | 2075.3 | -0.8 | 1.70 |
| MW-9B | 2081.1 | 32.44 | 2049.20 | 2049.10 | 31.5 | 2049.60 | 0.5 | 0.40 |
| MW-10B | 2066.2 | 33.63 | 2041.50 | 2046.70 | 22.3 | 2043.90 | -2.8 | 2.40 |
| MW-11B | 2115.1 | 18.06 | 2098.1 | 2102.8 | 16.0 | 2099.1 | -3.7 | 1.00 |
| MW-12A | 2108.3 | 12.68 | 2095.2 | 2099.2 | 10.9 | 2097.4 | -1.8 | 2.20 |
| MW-12B | 2107.5 | 20.9 | 2094.1 | 2096.3 | 13.1 | 2094.4 | -1.9 | 0.30 |
| MW-13 | 2058.7 | 11.44 | 2054 | 2054.5 | 3.9 | 2054.8 | 0.3 | 0.80 |
| MW-14 | 2060.9 | 23.44 | 2042.1 | 2044.9 | 17.0 | 2043.9 | -1.0 | 1.80 |

Notes:

1. All measurements are in feet and the elevations are referenced to NAVD88 based on USGS "Ischua 1964".
2. The depth to the bottom of the monitoring well as well as the depth to water is measure from the from top of the riser pipe prior to purging the wells.

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# Ischua Landfill
## Fall 2018
## Summary of Field Parameters

**TABLE 2**

| DOWN - GRADIENT MONITORING LOCATIONS | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Units | MW 6A | MW 6D | MW 7A | MW 7C | MW 8B | MW 9B | MW 10B | MW 11B | MW 12A | MW 12B | MW 13 | MW 14 | SEEP | STREAM | NYSDEC Part 703 Surface water and Groundwater Quality Standards | Units |
| Field Eh | mV | ** | 191.6* | -31.8 | 153.7 | 108.1 | 53* | 56.8 | 68.5 | -109* | -50.4 | 158.8 | 77.9 | -28.1 | 48.3 | NA | mV |
| Field pH | SU | ** | **7.12*** | **6.01** | 7.27 | **6.48** | **6.99*** | **6.35** | **5.74** | **6.62*** | 6.61 | 6.66 | 7.58 | **6.18** | 7.10 | 6.5-8.5 | SU |
| Field Specific Conductivity | mS/cm | ** | 0.68* | 0.515 | 0.613 | 0.532 | 0.427* | 0.595 | 0.193 | 0.746* | 0.011 | 0.350 | 0.421 | 0.453 | 0.210 | NA | mS/cm |
| Field Turbidity | NTU | ** | **365.6*** | **10.5** | **25.1** | **20.1** | **28.8*** | 2.4 | **32.5** | **154*** | **16.2** | **5.5** | **5.5** | **17.7** | 1.3 | 5 | NTU |
| Temperature | degC | ** | 11.0* | 14.5 | 11.2 | 13.0 | 11.9* | 13.2 | 13.3 | 15.5* | 14.6 | 16.1 | 12.8 | 14.8 | 17.9 | NA | degC |
| Dissolved Oxygen | mg/L | - | - | - | - | - | - | - | - | - | - | - | - | 3.72 | 8.55 | NA | mg/L |

"-" = Indicates the parameter was not analyzed
* = Indicates field parameter measurements were collected during purging due to insufficient water during sample collection
** = Indicates field parameter measurements not collected due to insufficient water during sample collection

**1.00** Value exceeds regulatory standard

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# Ischua Landfill
## Fall 2018
## Groundwater and Surface Water Analysis Summary

**TABLE 3**



| | | | MONITORING LOCATIONS | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CAS # | Units | MW 6A | MW 6D | MW 7A | MW 7C | MW 8B | MW 9B | MW 10B | MW 11B | MW 12A | MW 12B | MW 13 | MW 14 | SEEP [1] | STREAM [1] | Duplicate | NYSDEC Part 703 Surfacewater and Groundwater Quality Standards | Units | |
| Collection Date | | | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | 9/12/2018 | | | |
| BOD5 | | mg/l | - | - | 8.3 | ND | ND | - | 7.0 | ND | 14.4 | 7.6 | ND | ND | ND | ND | ND | NA | mg/l | BOD5 |
| Color | | Units | - | - | 75 | 15 | 15 | - | 5 | - | - | 75 | 10 | 5 | 125 | 30 | 5 | 15 | Units | Color |
| Hexavalent Chromium | 18540-29-9 | mg/l | - | - | ND | ND | ND | - | ND | - | - | 0.0061 | ND | ND | ND | ND | ND | 0.05 | mg/l | Hexavalent Chromium |
| Nitrate-Nitrogen | | mg/l | - | - | 0.070 | ND | ND | ND | ND | - | - | 0.05 | 0.062 | ND | ND | ND | ND | 10 | mg/l | Nitrate-Nitrogen |
| Alkalinity | | mg/lCaCO3 | - | - | 249 | 314 | 278 | - | 307 | - | - | 496 | 53.6 | 232 | 231 | 103 | 347 | NA | mg/lCaCO3 | Alkalinity |
| Chloride | | mg/l | - | - | 4.6 | 6.3 | 4.9 | - | 10.9 | 48.8 | 7.1 | 10.8 | 4.0 | 2.3 | 4.7 | 1.3 | 10.7 | 250 | mg/l | Chloride |
| COD | | mg/l | - | - | 50.2 | 15.5 | 46.1 | 44.1 | 29.8 | - | - | 74.7 | 21.6 | 27.7 | 44.1 | 0.0441 | 31.8 | NA | mg/l | COD |
| Ammonia-Nitrogen | 7664-41-7 | mg/l | - | - | 1.20 | 0.089 | 0.99 | 0.091 | 0.320 | - | - | 2.20 | 0.140 | 0.047 | 3.00 | 0.058 | 0.30 | 2 | mg/l | Ammonia-Nitrogen |
| Sulfate | | mg/l | - | - | 24.6 | 9.3 | 5.7 | - | 6.1 | 2.5 | 7.4 | 2.5 | 4.7 | 14.6 | 5.6 | 6.9 | 5.8 | 250 | mg/l | Sulfate |
| Total Cyanide | | mg/l | - | - | ND | ND | ND | - | ND | - | - | ND | ND | ND | ND | ND | ND | 0.2 | mg/l | Total Cyanide |
| Total Dissolved Solids | | mg/l | - | - | 246 | 323 | 279 | - | 308 | 87 | 394 | 458 | 181 | 216 | 217 | 113 | 299 | 500 | mg/l | Total Dissolved Solids |
| Total Kjeldahl Nitrogen | | mg/l | - | - | 0.43 | 2.8 | 2.4 | 0.35 | 0.53 | - | - | 4.7 | 0.23 | ND | 2.9 | 0.31 | 0.38 | NA | mg/l | Total Kjeldahl Nitrogen |
| TOC | | mg/l | - | 2.1 | 5.7 | 1.7 | 6.2 | 3.8 | 2.9 | 5.0 | 11.7 | 9.0 | 2.9 | 0.81 | 5.4 | 7.5 | 3.1 | NA | mg/l | TOC |
| Total Phenols | | mg/l | - | - | 0.0095 | ND | 0.0274 | 0.0161 | 0.0110 | - | - | 0.049 | 0.0043 | 0.0074 | 0.0079 | 0.0089 | 0.0125 | 0.001 | mg/l | Total Phenols |
| Aluminum | | mg/l | - | 27.3 | 0.104 | ND | 0.0416 | 0.43 | 0.0684 | - | - | 0.096 | 0.0697 | 0.0766 | 0.0779 | 0.139 | 0.1 | NA | mg/l | Aluminum |
| Antimony by furnace method | | mg/l | - | ND | ND | ND | ND | ND | ND | - | - | ND | 0.0035 | ND | ND | ND | ND | 0.003 | mg/l | Antimony by furnace method |
| Arsenic by furnace method | | mg/l | - | 0.0626 | 0.0413 | ND | 0.0228 | ND | ND | - | - | 0.0085 | ND | ND | 0.0288 | ND | ND | 0.025 | mg/l | Arsenic by furnace method |
| Barium | | mg/l | - | 0.205 | 0.617 | 0.14 | 0.126 | 0.0377 | 0.0657 | - | - | 0.325 | 0.0194 | 0.0405 | 0.177 | 0.01 | 0.0696 | 1 | mg/l | Barium |
| Beryllium | | mg/l | - | 0.0014 | ND | ND | ND | ND | ND | - | - | ND | ND | ND | ND | ND | ND | 0.003 | mg/l | Beryllium |
| Boron | 7440-42-8 | mg/l | - | 0.0382 | 0.0865 | 0.0136 | 0.0565 | 0.0115 | 0.0471 | - | - | 0.1250 | 0.0734 | 0.0225 | 0.0852 | 0.0288 | 0.0507 | 1 | mg/l | Boron |
| Cadmium | | mg/l | - | ND | ND | ND | ND | ND | ND | - | - | ND | ND | ND | ND | ND | ND | 0.005 | mg/l | Cadmium |
| Calcium | | mg/l | - | 120 | 48.2 | 97.8 | 74.4 | 76.4 | 76.6 | - | - | 127 | 50.3 | 66.1 | 52.4 | 28.6 | 81.9 | NA | mg/l | Calcium |
| Chromium | | mg/l | - | 0.0504 | ND | ND | ND | 0.0069 | ND | - | - | 0.0107 | 0.0044 | 0.0032 | 0.0107 | 0.0031 | 0.0052 | 0.05 | mg/l | Chromium |
| Copper | | mg/l | - | 0.0533 | ND | ND | ND | 0.0044 | ND | - | - | ND | ND | ND | ND | 0.0046 | ND | 0.2 | mg/l | Copper |
| Iron | | mg/l | - | 63.4 | 25.2 | 0.147 | 7.15 | 1.78 | 0.865 | - | - | 11.0 | 0.0952 | 0.0552 | 14.3 | 0.224 | 0.858 | 0.3 | mg/l | Iron |
| Lead by furnace method | | mg/l | - | 0.126 | 0.0021 | ND | 0.0013 | ND | ND | - | - | 0.0016 | ND | ND | ND | ND | ND | 0.025 | mg/l | Lead by furnace method |
| Magnesium | | mg/l | - | 35.1 | 9.51 | 15.7 | 10.7 | 10.1 | 23.8 | - | - | 23.8 | 13.8 | 15.9 | 16.6 | 7.74 | 25.7 | 35 | mg/l | Magnesium |
| Manganese | | mg/l | - | 1.78 | 12.7 | 2.95 | 8.25 | 0.658 | 5.59 | - | - | 9.54 | 0.17 | 0.183 | 10.60 | 0.242 | 6.42 | 0.3 | mg/l | Manganese |
| Mercury | | mg/l | - | 0.00017 | 0.00013 | 0.00014 | 0.00014 | - | 0.00013 | - | - | 0.00014 | ND | ND | ND | ND | ND | 0.0007 | mg/l | Mercury |
| Nickel | | mg/l | - | 0.0616 | 0.0048 | 0.0011 | 0.0048 | 0.0042 | 0.0041 | - | - | 0.0046 | 0.0017 | ND | 0.0031 | 0.0013 | 0.0045 | 0.1 | mg/l | Nickel |
| Potassium | | mg/l | - | 7.39 | 17.9 | 1.79 | 3.05 | 1.83 | 2.41 | - | - | 5.52 | 1.58 | 2.32 | 4.24 | 2.45 | 2.93 | NA | mg/l | Potassium |
| Selenium by furnace method | | mg/l | - | ND | ND | ND | ND | ND | ND | - | - | ND | ND | ND | ND | ND | ND | 0.01 | mg/l | Selenium by furnace method |
| Silver | | mg/l | - | ND | ND | ND | ND | ND | ND | - | - | ND | ND | ND | ND | ND | ND | 0.05 | mg/l | Silver |
| Sodium | | mg/l | - | 6.62 | 4.42 | 6.24 | 5.1 | 5.33 | 9.64 | - | - | 15.0 | 11.6 | 11.1 | 6.64 | 2.29 | 10.5 | 20 | mg/l | Sodium |
| Thallium by furnace method | | mg/l | - | 0.005 | 0.0145 | ND | 0.0103 | ND | 0.0066 | - | - | ND | ND | ND | ND | ND | ND | 0.0005 | mg/l | Thallium by furnace method |
| Zinc | | mg/l | - | 0.178 | 0.0078 | 0.0292 | 0.0099 | 0.323 | 0.0094 | - | - | 0.0045 | 0.0295 | 0.0051 | ND | ND | 0.0032 | 2 | mg/l | Zinc |
| Calculated Hardness | | mg/l CaCO3 | - | 347 | 187 | 273 | 173 | 200 | 227 | - | - | 340 | 113 | 187 | 200 | 80 | 17.3 | NA | mg/l CaCO3 | Calculated Hardness |
| | | | | | | | | | | | | | | | | | | 1.00 | | Value exceeds regulatory standard |

"-" - Indictes the parameter was not analyzed

ND - Indicates the value is less than the method detection limit

1. Regulatory values are from the 6NYCRR PART 703.5 Water Quality Regulations for Groundwater as amended in April 1999. For parameters for which a standard is not adopted, the guidance values presented in the NYSDEC June 1998 Technical and Operational Guidance Series (TOGS) 1.1.1 were ultilized.

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# Ischua Landfill
## Fall 2018
## Groundwater and Surface Water Analysis Summary

**TABLE 3**



| | | | MONITORING LOCATIONS | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Units | MW 6A | MW 6D | MW 7A | MW 7C | MW 8B | MW 9B | MW 10B | MW 11B | MW 12A | MW 12B | MW 13 | MW 14 | SEEP [1] | STREAM [1] | Duplicate | NYSDEC Part 703 Surfacewater and Groundwater Quality Standards | Units | |
| Acetone | 67-64-1 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | 7.6 | ND | ND | ND | ND | ND | ND | 50.0 | ug/l | Acetone |
| Acrylonitrile | 107-13-1 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Acrylonitrile |
| Benzene | 71-43-2 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | 5.2 | 5.8 | ND | ND | ND | ND | ND | 1.0 | ug/l | Benzene |
| Bromobenzene | 74-97-5 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | Bromobenzene |
| Bromochloromethane | 75-27-4 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Bromochloromethane |
| Bromodichloromethane | 75-25-2 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 50.0 | ug/l | Bromodichloromethane |
| Bromoform | 75-15-0 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 50.0 | ug/l | Bromoform |
| Bromomethane | 56-23-5 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Bromomethane |
| 2-Butanone | 108-90-7 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 50.0 | ug/l | 2-Butanone |
| n-Butylbenzene | 75-00-3 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | n-Butylbenzene |
| sec-Butylbenzene | 67-66-3 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | sec-Butylbenzene |
| tert-Butylbenzene | 124-48-1 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | tert-Butylbenzene |
| Carbon disulfide | 96-12-8 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 60.0 | ug/l | Carbon disulfide |
| Carbon tetrachloride | 106-96-4 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Carbon tetrachloride |
| Chlorobenzene | 95-50-1 | ug/l | - | ND | ND | ND | 6.6 | ND | ND | ND | 8.1 | 7.0 | ND | ND | ND | ND | ND | 5.0 | ug/l | Chlorobenzene |
| Chloroethane | 106-45- | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Chloroethane |
| Chloroform | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 7.0 | ug/l | Chloroform |
| Chloromethane | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Chloromethane |
| 2-Chlorotoluene | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | 2-Chlorotoluene |
| 4-Chlorotoluene | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | 4-Chlorotoluene |
| Dibromochloromethane | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 50.0 | ug/l | Dibromochloromethane |
| 1,2-Dibromo-3-chloropropane | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | ug/l | 1,2-Dibromo-3-chloropropane |
| 1,2-Dibromoethane | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | 1,2-Dibromoethane |
| Dibromomethane | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Dibromomethane |
| 1,2-Dichlorobenzene | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3.0 | ug/l | 1,2-Dichlorobenzene |
| 1,3-Dichlorobenzene | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.0 | ug/l | 1,3-Dichlorobenzene |
| 1,4-Dichlorobenzene | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3.0 | ug/l | 1,4-Dichlorobenzene |
| trans-1,4-Dichloro-2-butene | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | trans-1,4-Dichloro-2-butene |
| Dichlorodifluoromethane | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | Dichlorodifluoromethane |
| 1,1-Dichloroethane | 110-57-6 | ug/l | - | ND | ND | ND | ND | ND | 9.5 | ND | ND | ND | ND | ND | ND | ND | 11.4 | 5.0 | ug/l | 1,1-Dichloroethane |
| 1,2-Dichloroethane | 107-06-2 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.6 | ug/l | 1,2-Dichloroethane |
| 1,1-Dichloroethene | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | 1,1-Dichloroethene |
| cis-1,2-Dichloroethene | | ug/l | - | ND | ND | ND | 6.7 | ND | 38.2 | ND | ND | ND | ND | ND | 9.6 | ND | 45.5 | 5.0 | ug/l | cis-1,2-Dichloroethene |
| trans-1,2-Dichloroethene | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | trans-1,2-Dichloroethene |
| 1,2-Dichloropropane | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.0 | ug/l | 1,2-Dichloropropane |
| 1,3-Dichloropropane | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | 1,3-Dichloropropane |
| 2,2-Dichloropropane | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | 2,2-Dichloropropane |
| 1,1-Dichloropropene | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | 1,1-Dichloropropene |
| cis-1-3-Dichloropropene | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.4 | ug/l | cis-1-3-Dichloropropene |
| trans-1,3-Dichloropropene | 1006-01-5 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.4 | ug/l | trans-1,3-Dichloropropene |
| Ethylbenzene | 100-41-4 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Ethylbenzene |
| 2-Hexanone | 591-78-6 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 50.0 | ug/l | 2-Hexanone |
| Hexachlorobutadiene | 74-83-9 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.5 | ug/l | Hexachlorobutadiene |
| Iodomethane | 74-87-3 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Iodomethane |
| Isopropylbenzene | 74-95-3 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | Isopropylbenzene |
| p-Isopropyltoluene | 75-09-02 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | p-Isopropyltoluene |
| Methylene chloride | 78-93-3 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Methylene chloride |
| 4-Methyl-2-pentanone | 108-10-1 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ug/l | 4-Methyl-2-pentanone |
| Naphthalene | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10.0 | ug/l | Naphthalene |
| n-Propylbenzene | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | n-Propylbenzene |
| Styrene | 100-42-5 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Styrene |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | 1,1,1,2-Tetrachloroethane |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | 1,1,2,2-Tetrachloroethane |
| Tetrachloroethene | 127-18-4 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Tetrachloroethene |
| Toluene | 108-88-3 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Toluene |
| 1,2,3-Trichlorobenzene | 96-18-4 | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | 1,2,3-Trichlorobenzene |
| 1,2,4-Trichlorobenzene | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | 1,2,4-Trichlorobenzene |
| 1,1,1-Trichloroethane | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | 1,1,1-Trichloroethane |
| 1,1,2-Trichloroethane | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.0 | ug/l | 1,1,2-Trichloroethane |
| Trichloroethene | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Trichloroethene |
| Trichlorofluoromethane | | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | Trichlorofluoromethane |
| 1,2,3-Trichloropropane | 96-18-4 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | ug/l | 1,2,3-Trichloropropane |
| 1,2,4-Trimethylbenzene | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | 1,2,4-Trimethylbenzene |
| 1,3,5-Trimethylbenzene | | ug/l | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.0 | ug/l | 1,3,5-Trimethylbenzene |
| Vinyl acetate | 108-05-4 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ug/l | Vinyl acetate |
| Vinyl chloride | 75-01-4 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5 | 2.0 | ug/l | Vinyl chloride |
| Total-Xylene | 1330-20-7 | ug/l | - | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.0 | ug/l | p-Xylene & m-Xylene |

"-" - Indictes the parameter was not analyzed

ND - Indicates the value is less than the method detection limit

1.00 Value exceeds regulatory standard

# APPENDIX A

Field Sampling Logs

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: MW-6A**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: **9/ 11 /2018**

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): **17.19** Water Level (ft): Dry Height of Water Column (ft): _____

1 Well Volume [WV] (gal): _____ 3 WV (gal): _____ 5 WV (gal): [Not Applicable]

Method of Purging: **Dedicated Bailer X** / Other: _____

**Purge X Field Parameters** **Start Time:** 8:40

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start=_____gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | | | | | | |
| / 1 | | | | | | |
| / 2 | | | | | | |
| / 3 | | | | | | |

Total Volume Purged (gal): _____ Complete Time: 8:40 Water Level (ft): _____

**Sampling Information:** Date: **9/ /2018**

Sample Time: _____ Water Level(ft): _____ Sample Analysis: **Routine Event / No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher ____

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| | | | | | |

Other Comments: This well typically does not contain much water and may not be enough for a full bottle set.

Dry

X Purger's / X Sampler's Name(s) and Initials SD & MM

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: MW-6D**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ 11 /2018

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

(Note: water measuring tape only goes to 101.2 feet)

Well Depth (ft): **103.14** Water Level (ft): 101 Height of Water Column (ft): 2.14

1 Well Volume [WV] (gal): 0.34 3 WV (gal): 1.03 5 WV (gal): [Not Applicable]

Method of Purging: **Dedicated Bailer X** / Other:

**Purge X Field Parameters** **Start Time:** 8:45

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start=_____gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | 191.6 | 7.12 | 11.0 | 0.680 | 365.6 | |
| / 1 | | | | | | |
| / 2 | | | | | | |
| / 3 | | | | | | |

Total Volume Purged (gal): Complete Time: 8:55 Water Level (ft):

**Sampling Information:** Date: **9/ 11 /2018**

Sample Time: 8:00 Water Level(ft): Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| | | | | | |

Other Comments:

Replaced bailer
Dry after initial
Sand in bailer

insufficient volume for ysi
partial set VOCs + TOCs
partial - BOD, BR, CL, SO4, NO2, TDS

X Purger's / X Sampler's Name(s) and Initials: SD & MM

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

WELL ID: MW-7

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ 11 /2018

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 11.64 Water Level (ft): 7.9 Height of Water Column (ft): 3.74

1 Well Volume [WV] (gal): 0.6 3 WV (gal): 1.8 5 WV (gal): [Not Applicable]

Method of Purging: **Dedicated Bailer X** / Other:

**Purge X Field Parameters** **Start Time:** 9:10

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start= gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | 238 | 6.11 | 14.3 | 0.466 | 89.7 | |
| / 1 | -14.3 | 6.12 | 14.0 | 0.527 | 66.5 | |
| / 2 | -19.6 | 6.09 | 14.1 | 0.525 | 21.5 | |
| / 3 | 10.1 | 6.13 | 14.1 | 0525 | 84.7 | |

Total Volume Purged (gal): Complete Time: 9:25 Water Level (ft):

**Sampling Information:** Date: 9/ 12 /2018

Sample Time: 8:45 Water Level(ft): Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| -31.8 | 6.01 | 14.5 | 0.515 | 10.5 | |

Other Comments:
orange in color

X Purger's / X Sampler's Name(s) and Initials: SD & MM

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

WELL ID: MW-7C

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ 11 /2018

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 40.30 Water Level (ft): 33.7 Height of Water Column (ft): 6.6

1 Well Volume [WV] (gal): 1.1 3 WV (gal): 3.2 5 WV (gal): [Not Applicable]

Method of Purging: Dedicated Bailer X / Other:

**Purge X Field Parameters** **Start Time:** 9:35

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start=_____gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | 122.1 | 7.11 | 10.8 | 0.594 | 7.6 | |
| / 1 | 132.0 | 7.2 | 9.8 | 0.318 | 35.7 | |
| / 2 | 146.4 | 7.23 | 9.7 | 0.613 | [illegible] | |
| / 3 | 128.1 | 7.16 | 10.2 | 0.612 | 39.9 | |

Total Volume Purged (gal): _____ Complete Time: 9:50 Water Level (ft): _____

**Sampling Information:** Date: 9/ 12 /2018

Sample Time: 9:00 Water Level(ft): _____ Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher ____

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| 153.7 | 7.27 | 11.2 | 0.613 | 25.1 | |

Other Comments:
Must be given time to recover. Wait well

clear

X Purger's / X Sampler's Name(s) and Initials: SD & MM

LaBella

# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: MW-8B**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ 11 /2018

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 25.65 Water Level (ft): 14.3 Height of Water Column (ft): 11.35

1 Well Volume [WV] (gal): 1.8 3 WV (gal): ~~5.4~~ 5.4 5 WV (gal): [Not Applicable]

Method of Purging: **Dedicated Bailer X** / Other:

**Purge X Field Parameters** **Start Time:** 13:46

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start= gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | -9.1 | 6.39 | 12.1 | 0.479 | 21.4 | |
| / 1 | -16.7 | 6.32 | 10.7 | 0.519 | 22.5 | |
| / 2 | -18.8 | 6.17 | 10.4 | 0.527 | 22.7 | |
| / 3 | -15.0 | 6.2 | 10.2 | 0.53 | 9.9 | |

Total Volume Purged (gal): 5.4 Complete Time: ~~14:00~~ 14:00 Water Level (ft):

**Sampling Information:** Date: **9/ 12 /2018**

Sample Time: 13:30 Water Level(ft): Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| -18.1 | 6.48 | 13 | 0532 | 20.1 | |

Other Comments: Clear

MS/MSD

X Purger's / X Sampler's Name(s) and Initials: SD & MM

LaBella
Powered by Partner Up

# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: MW-9B**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: **9/ 11 /2018**

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): **32.43** Water Level (ft): 31.5 Height of Water Column (ft): 0.93

1 Well Volume [WV] (gal): _____ 3 WV (gal): _____ 5 WV (gal): [Not Applicable]

Method of Purging: **Dedicated Bailer X** / Other: _____

**Purge X** **Field Parameters** **Start Time:** 11:23

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start=_____gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | 24.6 | 6.91 | 12.5 | 0491 | 17.7 | |
| / 1 | 35.5 | 6.92 | 11.8 | 0.461 | 25.3 | |
| / 2 | 50.3 | 6.95 | 11.6 | 0.44 | 27.0 | |
| / 3 | 53 | 6.99 | 11.9 | 0.427 | 28.8 | |

Total Volume Purged (gal): _____ Complete Time: 11:40 Water Level (ft): _____

**Sampling Information:** Date: **9/ 12 /2018**

Sample Time: _____ Water Level(ft): _____ Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher ____

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| | | | | | |

Other Comments:

Insufficient volume for YSI

VOCs, TOCs, metals + COD, NH3, NO3, Phenols HK

X Purger's / X Sampler's Name(s) and Initials: SD & MM

8B- Metals

8D → Metals

LaBella

# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: MW-10B**

roject Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ 11 /2018

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): **33.69** Water Level (ft): 22.3 Height of Water Column (ft): 11.39

1 Well Volume [WV] (gal): 1.82 3 WV (gal): 5.5 5 WV (gal): [Not Applicable]

Method of Purging: **Dedicated Bailer X** / Other: _____

**Purge X** **Field Parameters** **Start Time:** 13:05

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start=_____gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | 80.0 | 6.31 | 11.5 | 0.553 | 7.6 | |
| / 1 | 53.3 | 6.34 | 10.8 | 0.567 | 2.2 | |
| / 2 | 48.3 | 6.30 | 10.6 | 0.571 | 4.2 | |
| / 3 | 46.4 | 6.27 | 10.7 | 0.582 | 2.9 | |

Total Volume Purged (gal): _____ Complete Time: 13:20 Water Level (ft): _____

**Sampling Information:** Date: **9/ 12 /2018**

Sample Time: 13:00 Water Level(ft): _____ Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher ____

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| 568 | 6.35 | 13.2 | 0.595 | 2.4 | |

Other Comments:

DUP

X Purger's / X Sampler's Name(s) and Initials: SD & MM

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: MW-11B**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ 11 /2018

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 18.07 Water Level (ft): 16 Height of Water Column (ft): 2.07

1 Well Volume [WV] (gal): 0.33 3 WV (gal): 0.99 5 WV (gal): [Not Applicable]

Method of Purging: **Dedicated Bailer_X_** / Other: _____

**Purge X** **Field Parameters** **Start Time:** 10:00

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start=_____gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | 427 | 5.94 | 13 | 0.204 | 21.0 | |
| / 1 | | | | | | |
| / 2 | | | | | | |
| / 3 | | | | | | |

Total Volume Purged (gal): 0.3 Complete Time: 10:25 Water Level (ft): _____

**Sampling Information:** Date: 9/ 12 /2018

Sample Time: 9:25 Water Level(ft): _____ Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher ____

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| 68.5 | 5.74 | 13.3 | 0.193 | 32.5 | |

Other Comments:
Wait well. Should be Purged *well* before sampling.
10:25 am - Dry @ 0.3 gal.

X Purger's / X Sampler's Name(s) and Initials: SD & MM

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: MW-12A**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ 11 /2018

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 12.68 Water Level (ft): 10.9 Height of Water Column (ft): 1.78

1 Well Volume [WV] (gal): 0.28 3 WV (gal): 0.85 5 WV (gal): [Not Applicable]

Method of Purging: **Dedicated Bailer X** / Other:

**Purge X Field Parameters** **Start Time:** 10:45

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start=_____gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | -60 | 6.14 | 13.8 | 0.893 | 16.3 | |
| / 1 | -81 | 6.43 | 14.9 | 0.828 | 77.2 | |
| / 2 | -109 | 6.62 | 15.5 | 0.746 | 154 | |
| / 3 | | | | | | |

Total Volume Purged (gal): Complete Time: 11:07 Water Level (ft):

**Sampling Information:** Date: 9/ 12 /2018

Sample Time: 10:00 Water Level(ft): Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| | | | | | |

Other Comments:
Wait well due to turbidity
DM @ 2 volumes
Clear

partial set
VOCs, TOC, BOD, BR, Cl, SO4, NO2, TDS
Insufficient volume for ysi + full set

X Purger's / X Sampler's Name(s) and Initials: SD & MM

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: MW-12B**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ 11 /2018

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 20.90 Water Level (ft): 13.1 Height of Water Column (ft): 7.8

1 Well Volume [WV] (gal): 1.25 3 WV (gal): 3.74 5 WV (gal): [Not Applicable]

Method of Purging: Dedicated Bailer X / Other:

**Purge X Field Parameters** **Start Time:** 10:32

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start=_____gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | 16.2 | 6.05 | 14.0 | .708 | 7.5 | |
| / 1 | -27.0 | 6.17 | 12.3 | 0.877 | 19.0 | |
| / 2 | -47.8 | 6.10 | 11.9 | 0.922 | 8.1 | |
| / 3 | -49.4 | 6.12 | 11.6 | 0.92 | 9.2 | |

Total Volume Purged (gal): Complete Time: 10:44 Water Level (ft):

**Sampling Information:** Date: 9/ 12 /2018

Sample Time: 9:45 Water Level(ft): Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| -80.4 | 6.61 | 14.6 | .011 | 16.2 | |

Other Comments:

clear

X Purger's / X Sampler's Name(s) and Initials: SD & MM

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: MW-13**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ 11 /2018

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): 11.44 Water Level (ft): 3.9 Height of Water Column (ft): 7.54

1 Well Volume [WV] (gal): 1.2 3 WV (gal): 3.62 5 WV (gal): [Not Applicable]

Method of Purging: Dedicated Bailer X / Other:

**Purge X Field Parameters** **Start Time:** 12:45

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start= gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | 99.4 | 6.40 | 17 | 0.279 | 0.1 | |
| / 1 | 102.2 | 6.46 | 14.4 | 0.355 | 9.6 | |
| / 2 | 102.8 | 6.63 | 14.0 | 0.381 | 19.2 | |
| / 3 | | | | | | |

Total Volume Purged (gal): 2.6 Complete Time: 13:00 Water Level (ft):

**Sampling Information:** Date: 9/ 12 /2018

Sample Time: 12:00 Water Level(ft): Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| 158.8 | 6.66 | 16.1 | 0.350 | 5.5 | |

Other Comments:
Requires some wait time after purging.

Clear
Dry @ 2.6 gal.

X Purger's / X Sampler's Name(s) and Initials: SD & MM

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: MW-14**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ 11 /2018

**Development / Purge Information:** [All measurements to Top of Well Riser; Riser I.D. (in): 2 [Volume Conversion = 0.16]

Visible Well Damage/Comments: NONE

Well Depth (ft): **23.45** Water Level (ft): 17.0 Height of Water Column (ft): 6.45

1 Well Volume [WV] (gal): 1.03 3 WV (gal): 3.1 5 WV (gal): [Not Applicable]

Method of Purging: Dedicated Bailer X / Other:

**Purge X Field Parameters** **Start Time:** 13:30

| Vol (gal)/WV | Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | [Totalizer Start= gal] Characteristics |
|---|---|---|---|---|---|---|
| Initial / 0 | 61.1 | 7.57 | 12.6 | 0.377 | 4.0 | |
| / 1 | 71.2 | 7.64 | 12.1 | 0.405 | 1.7 | |
| / 2 | 80.0 | 7.65 | 12.6 | 0.407 | 48.2 | |
| / 3 | | | | | | |

Total Volume Purged (gal): Complete Time: 13:40 Water Level (ft):

**Sampling Information:** Date: 9/ 12 /2018

Sample Time: 16:45 Water Level(ft): Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics |
|---|---|---|---|---|---|
| 729 | 7.58 | 12.8 | 0.421 | 5.5 | |

Other Comments:
Wait well- very slow recharge rate. Must come back several times to obtain samples. Well casing is often full of bees.
Dry @ 2 well volumes

X Purger's / X Sampler's Name(s) and Initials: SD & MM

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: SEEP**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: 9/ /2018

Purge not required on this sample- Surface water

**Sampling Information:** Date: 9/ 12 /2018

Sample Time: 12:15 Water Level(ft):_____ Sample Analysis: **Baseline Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All / **Manual grab w/-** Sample Containers X ; S/S Pitcher ____

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics **[For SW & SEEP Only: D.O. = 3.72 mg/L]** |
|---|---|---|---|---|---|
| -28.1 | 6.18 | 14.8 | 0.453 | 17.7 | |

Other Comments:
orange in color

X Purger's / X Sampler's Name(s) and Initials: 9

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# WELL DEVELOPMENT/ PURGE & SAMPLING LOG

**WELL ID: STREAM**

Project Name: Ischua Landfill [City of Olean]
Project Location: Airport Road, Town of Ischua, New York

Project No: 2181366
Sampling Event: Fall 2018 - Baseline
Date: **9/ /2018**

Purge not required on this sample- Surface water

**Sampling Information:** Date: **9/** 12 **/2018**

Sample Time: 12:30 Water Level(ft):_____ Sample Analysis: **Routine Event/No. of Bottles:**

Sampling Method : **Dedicated Bailer-** All **/ Manual grab w/-** Sample Containers X ; S/S Pitcher ____

**Sample Field Parameters**

| Eh (mV) | pH (SU) | Temp. (°C) | Cond. (mS/cm) | Turb. (NTU) | Characteristics **[For SW & SEEP Only: D.O. =** 8.55 **mg/L]** |
|---|---|---|---|---|---|
| 48.3 | 7.10 | 17.9 | 0.210 | 1.3 | |

Other Comments:

X Purger's / X Sampler's Name(s) and Initials: SD & MM

716-557-8800
716 372-4433

# APPENDIX B

Chain-of-Custody

WO# : 7064634

7064634

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Page : 1 Of 1

| Required Client Information: | | Required Project Information: | | Section C Invoice Information: | |
|---|---|---|---|---|---|
| Company: | LaBella Associates | Report To: | Andrew Benkleman | Attention: | |
| Address: | 300 Pearl Street | Copy To: | | Company Name: | |
| Buffalo, NY 14201 | | | | Address: | |
| Email: | abenkleman@labellapc.com | Purchase Order #: | | Pace Quote: | |
| Phone: | (716) 551-6281 Fax | Project Name: | Ischua Landfill | Pace Project Manager: | jennifer.aracri@pacelabs.com, |
| Requested Due Date: | | Project #: | 218366 | Pace Profile #: | 5498 Line 3 & 4 |

Regulatory Agency

State / Location: NY

| ITEM # | SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique) | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | BOD, BR,Cl,SO4,NO2,TDS | Alkalinity,Color,CR+6 | COD,NH3,NO3,Phenols, TK | TOC | TAL Metals +B +Hardness | Cyanide | Dissolved Metals by 200.7 (L | Volatiles | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Requested Analysis Filtered (Y/N) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | MW-6A | WT | | | | | | | | | | | | | | | | | X | X | X | X | X | | | X | | |
| 2 | MW-6D | WT | | 9/12/18 | 8:00 | | | | 5 | | | | | | | | | | ~~X~~ | ~~X~~ | ~~X~~ | X | X | | | X | | 001 |
| 3 | MW-7A | WT | | 9/12/18 | 8:45 | | | | 9 | | | | | | | | | | X | X | X | X | X | X | | X | | 002 |
| 4 | MW-7C | WT | | 9/12/18 | 9:00 | | | | 9 | | | | | | | | | | X | X | X | X | X | X | | X | | 003 |
| 5 | MW-8B | WT | | 9/12/18 | 13:30 | | | | 9 | | | | | | | | | | X | X | X | X | X | X | | X | | MS/MSD 004 |
| 6 | MW-9B | WT | | 9/12/18 | 10:15 | | | | 6 | | | | | | | | | | ~~X~~ | X | ~~X~~ | X | X | | | X | | 005 |
| 7 | MW-10B | WT | | 9/12/18 | 13:00 | | | | 9 | | | | | | | | | | X | X | X | X | X | | | X | | 006 |
| 8 | MW-11B | WT | | 9/12/18 | 9:25 | | | | 5 | | | | | | | | | | X | ~~X~~ | ~~X~~ | X | ~~X~~ | | | X | | 007 |
| 9 | MW-12A | WT | | 9/12/18 | 10:00 | | | | 5 | | | | | | | | | | X | ~~X~~ | ~~X~~ | X | ~~X~~ | | | X | | 008 |
| 10 | MW-12B | WT | | 9/12/18 | 9:45 | | | | 9 | | | | | | | | | | X | X | X | X | X | X | | X | | 009 |
| 11 | MW-13 | WT | | 9/12/18 | 12:00 | | | | 9 | | | | | | | | | | X | X | X | X | X | ~~X~~ | | X | | 010 |
| 12 | MW-14 | WT | | 9/12/18 | 10:45 | | | | 9 | | | | | | | | | | X | X | X | X | X | X | | X | | 011 |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
| Part 360 Baseline | Shawn Duffy | 9/12/18 | 16:40 | Mich | 9/13 | 1045 | 4.2 | Y | Y | Y |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed:

Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Reque

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fiel

**WO#: 7064634**
PM: JSA Due Date: 09/27/18
CLIENT: LBA-B

| Section A Required Client Information: | | Section B Required Project Information: | | Section C Invoice Information: | |
|---|---|---|---|---|---|
| Company: | LaBella Associates | Report To: | Andrew Benkleman | Attention: | |
| Address: | 300 Pearl Street | Copy To: | | Company Name: | |
| | Buffalo, NY 14201 | | | Address: | |
| Email: | abenkleman@labellapc.com | Purchase Order #: | | Pace Quote: | |
| Phone: | (716) 551-6281 Fax | Project Name: | Ischua Landfill | Pace Project Manager: | jennifer.aracri@pacelabs.com, |
| Requested Due Date: | | Project #: | 218136 | Pace Profile #: | 5498 Line 3 & 4 |

| Regulatory Agency |
|---|
| |
| State / Location |
| NY |

**SAMPLE ID**
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | BOD, BR,Cl,SO4,NO2,TDS | Alkalinity,Color,CR+6 | COD,NH3,NO3,Phenols, TK | TOC | TAL Metals +B +Hardness | Cyanide | Dissolved Metals by 200.7 (I | Volatiles | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | SEEP | WT | | 9/12/18 | 12:15 | | | | 9 | | | | | | | | | | X | X | X | X | X | X | | X | | 012 |
| 14 | STREAM | WT | | 9/12/18 | 12:30 | | | | 9 | | | | | | | | | | X | X | X | X | X | X | | X | | 013 |
| 15 | DUP | WT | | 9/12/18 | | | | | 9 | | | | | | | | | | X | X | X | X | X | X | | X | | 014 |
| 16 | MW-88 MS | WT | | 9/12/18 | 13:30 | | | | 9 | | | | | | | | | | X | X | X | X | X | X | | X | | 004 |
| 17 | MW-88 MSD | WT | | 9/12/18 | 13:50 | | | | 9 | | | | | | | | | | X | X | X | X | X | X | | X | | 004 |
| 18 | NoClientID1 | WT | | | | | | | | | | | | | | | | | | | | | | | X | | | 015 |
| 19 | NoClientID2 | WT | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| 20 | NoClientID3 | WT | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| 21 | NoClientID4 | WT | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Part 360 Baseline | Shannon Dobbs | 9/12/18 | 16:40 | | 9/13 | 1045 | Y | Y | Y | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

| SAMPLER NAME AND SIGNATURE | | | | | |
|---|---|---|---|---|---|
| PRINT Name of SAMPLER: | | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
| SIGNATURE of SAMPLER: | DATE Signed: | | | | | |

# APPENDIX C

Analytical Laboratory Report

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

September 28, 2018

Andrew Benkleman
LaBella Associates
300 Pearl Street
Suite 130
Buffalo, NY 14201

RE: Project: Ischua Landfill 9/12
Pace Project No.: 7064634

Dear Andrew Benkleman:
Enclosed are the analytical results for sample(s) received by the laboratory on September 13, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Aracri
jennifer.aracri@pacelabs.com
(631)694-3040
Project Manager

Enclosures

cc: Shannon Dalton, LaBella Associates

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## CERTIFICATIONS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Long Island Certification IDs**

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

**Pace Analytical Services, LLC**
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(631)694-3040

# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 6010C**
**Description:** 6010 MET ICP
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
12 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 83394

B: Analyte was detected in the associated method blank.
- BLANK for HBN 83394 [MPRP/5848 (Lab ID: 383689)
  - Lead
  - Zinc

QC Batch: 84096

B: Analyte was detected in the associated method blank.
- BLANK for HBN 84096 [MPRP/5892 (Lab ID: 386960)
  - Zinc

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 83394

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7064635001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 383692)
  - Calcium

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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 6010C**
**Description:** 6010 MET ICP
**Client:** LaBella Associates
**Date:** September 28, 2018

QC Batch: 84096

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7064634004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 386963)
  - Iron
  - Manganese

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 7470A**
**Description:** 7470 Mercury
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
11 samples were analyzed for EPA 7470A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**
The samples were prepared in accordance with EPA 7470A with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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Melville, NY 11747
(631)694-3040

# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 8260C/5030C**
**Description:** 8260C Volatile Organics
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
16 samples were analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

QC Batch: 83278

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- LCS (Lab ID: 383259)
  - Acetone
- MS (Lab ID: 384345)
  - Acetone
- MSD (Lab ID: 384346)
  - Acetone
- MW-11B (Lab ID: 7064634007)
  - Acetone
- MW-12A (Lab ID: 7064634008)
  - Acetone
- MW-12B (Lab ID: 7064634009)
  - Acetone
- MW-14 (Lab ID: 7064634011)
  - Acetone
- MW-7C (Lab ID: 7064634003)
  - Acetone

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

QC Batch: 83278

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- LCS (Lab ID: 383259)
  - Acetone
  - Iodomethane
  - Trichlorofluoromethane
- MS (Lab ID: 384345)
  - Acetone
  - Iodomethane
  - Trichlorofluoromethane
- MSD (Lab ID: 384346)
  - Acetone
  - Iodomethane

Pace Analytical Services, LLC
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## PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 8260C/5030C**
**Description:** 8260C Volatile Organics
**Client:** LaBella Associates
**Date:** September 28, 2018

QC Batch: 83278

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
- Trichlorofluoromethane
- MW-11B (Lab ID: 7064634007)
  - Acetone
- MW-12A (Lab ID: 7064634008)
  - Acetone
- MW-12B (Lab ID: 7064634009)
  - Acetone
- MW-14 (Lab ID: 7064634011)
  - Acetone
- MW-7C (Lab ID: 7064634003)
  - Acetone

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
- BLANK (Lab ID: 383258)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- DUP (Lab ID: 7064634014)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- LCS (Lab ID: 383259)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MS (Lab ID: 384345)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MSD (Lab ID: 384346)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MW-10B (Lab ID: 7064634006)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MW-11B (Lab ID: 7064634007)
  - 1,1,2,2-Tetrachloroethane

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## PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 8260C/5030C**
**Description:** 8260C Volatile Organics
**Client:** LaBella Associates
**Date:** September 28, 2018

QC Batch: 83278

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- 2-Butanone (MEK)
- Acrylonitrile
- Vinyl acetate

- MW-12A (Lab ID: 7064634008)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MW-12B (Lab ID: 7064634009)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MW-13 (Lab ID: 7064634010)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MW-14 (Lab ID: 7064634011)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MW-6D (Lab ID: 7064634001)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MW-7A (Lab ID: 7064634002)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MW-7C (Lab ID: 7064634003)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MW-8B (Lab ID: 7064634004)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- MW-9B (Lab ID: 7064634005)

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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 8260C/5030C**
**Description:** 8260C Volatile Organics
**Client:** LaBella Associates
**Date:** September 28, 2018

QC Batch: 83278

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- 1,1,2,2-Tetrachloroethane
- 2-Butanone (MEK)
- Acrylonitrile
- Vinyl acetate

- SEEP (Lab ID: 7064634012)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- STORAGE BLANK (Lab ID: 7064634016)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- STREAM (Lab ID: 7064634013)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate
- TRIP BLANK (Lab ID: 7064634015)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)
  - Acrylonitrile
  - Vinyl acetate

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 8260C/5030C**
**Description:** 8260C Volatile Organics
**Client:** LaBella Associates
**Date:** September 28, 2018

QC Batch: 83278

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7064634004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 384345)
  - 1,1,2,2-Tetrachloroethane
  - 1,1,2-Trichloroethane
  - 1,1-Dichloroethane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichloropropane
  - 4-Methyl-2-pentanone (MIBK)
  - Bromochloromethane
  - cis-1,3-Dichloropropene
- MSD (Lab ID: 384346)
  - 1,1,2-Trichloroethane
  - 1,1-Dichloroethane

R1: RPD value was outside control limits.

- MSD (Lab ID: 384346)
  - 1,2-Dichloropropane
  - 4-Methyl-2-pentanone (MIBK)
  - cis-1,3-Dichloropropene

**Additional Comments:**

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 8260**
**Description:** TIC MSV Water
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
14 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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Melville, NY 11747
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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **SM22 2120B**
**Description:** 2120B W Apparent Color
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
10 samples were analyzed for SM22 2120B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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Melville, NY 11747
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## PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **SM22 2320B**
**Description:** 2320B Alkalinity
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
10 samples were analyzed for SM22 2320B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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Melville, NY 11747
(631)694-3040

## PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **SM22 2340C**
**Description:** 2340C Hardness, Total
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
12 samples were analyzed for SM22 2340C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **SM22 2540C**
**Description:** 2540C Total Dissolved Solids
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
12 samples were analyzed for SM22 2540C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **SM22 3500-Cr B**
**Description:** Chromium, Hexavalent
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
10 samples were analyzed for SM22 3500-Cr B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

H1: Analysis conducted outside the EPA method holding time.
- MW-10B (Lab ID: 7064634006)
- MW-13 (Lab ID: 7064634010)
- MW-14 (Lab ID: 7064634011)
- MW-8B (Lab ID: 7064634004)
- SEEP (Lab ID: 7064634012)
- STREAM (Lab ID: 7064634013)

H3: Sample was received or analysis requested beyond the recognized method holding time.
- DUP (Lab ID: 7064634014)
- MW-12B (Lab ID: 7064634009)
- MW-7A (Lab ID: 7064634002)
- MW-7C (Lab ID: 7064634003)

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 410.4**
**Description:** 410.4 COD
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
11 samples were analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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Melville, NY 11747
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## PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **SM22 5210B**
**Description:** 5210B BOD, 5 day
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
12 samples were analyzed for SM22 5210B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**
The samples were prepared in accordance with SM22 5210B with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 300.0**
**Description:** 300.0 IC Anions 28 Days
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
12 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 84647

B: Analyte was detected in the associated method blank.

- BLANK for HBN 84647 [WETA/1355 (Lab ID: 389288)
  - Sulfate

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 351.2**
**Description:** 351.2 Total Kjeldahl Nitrogen
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
11 samples were analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**
The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 84467

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7065217002,7065438002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 388619)
  - Nitrogen, Kjeldahl, Total

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 353.2**
**Description:** 353.2 Nitrogen, NO2/NO3 pres.
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
11 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 82960

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7064274008,7064634004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 381723)
  - Nitrate-Nitrite (as N)
- MS (Lab ID: 381725)
  - Nitrate-Nitrite (as N)

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 353.2**
**Description:** 353.2 Nitrogen, NO2
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
12 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 420.1**
**Description:** Phenolics, Total Recoverable
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
11 samples were analyzed for EPA 420.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**
The samples were prepared in accordance with EPA 420.1 with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

**Pace Analytical Services, LLC**
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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **SM22 4500 NH3 H**
**Description:** 4500 Ammonia Water
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
11 samples were analyzed for SM22 4500 NH3 H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 84319

B: Analyte was detected in the associated method blank.

- BLANK for HBN 84319 [WETA/1351 (Lab ID: 387828)
  - Nitrogen, Ammonia

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 9014 Total Cyanide**
**Description:** 9014 Cyanide, Total
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
9 samples were analyzed for EPA 9014 Total Cyanide. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**
The samples were prepared in accordance with EPA 9010C with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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# PROJECT NARRATIVE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Method:** **EPA 9060A**
**Description:** 9060A TOC as NPOC
**Client:** LaBella Associates
**Date:** September 28, 2018

**General Information:**
14 samples were analyzed for EPA 9060A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

**Pace Analytical Services, LLC**
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## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-6D** **Lab ID: 7064634001** Collected: 09/12/18 08:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **27300** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-36-0 | |
| Arsenic | **62.6** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-38-2 | |
| Barium | **205** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-39-3 | |
| Beryllium | **1.4J** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-41-7 | |
| Boron | **38.2J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-43-9 | |
| Calcium | **120000** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-70-2 | |
| Chromium | **50.4** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-47-3 | |
| Cobalt | **38.7J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-48-4 | |
| Copper | **53.3** | ug/L | 25.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-50-8 | |
| Iron | **63400** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/25/18 11:48 | 7439-89-6 | |
| Lead | **126** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7439-92-1 | |
| Magnesium | **35100** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7439-95-4 | |
| Manganese | **1780** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 11:48 | 7439-96-5 | |
| Nickel | **61.6** | ug/L | 40.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-02-0 | |
| Potassium | **7390** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-22-4 | |
| Sodium | **6620** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-23-5 | |
| Thallium | **5.0J** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-28-0 | |
| Vanadium | **31.9J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-62-2 | |
| Zinc | **178** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/24/18 23:23 | 7440-66-6 | B |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **0.17J** | ug/L | 0.20 | 1 | 09/21/18 09:44 | 09/24/18 11:23 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-6D** **Lab ID: 7064634001** Collected: 09/12/18 08:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:09 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 111 | % | 68-153 | 1 | | 09/18/18 00:09 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 114 | % | 79-124 | 1 | | 09/18/18 00:09 | 460-00-4 | |
| Toluene-d8 (S) | 95 | % | 69-124 | 1 | | 09/18/18 00:09 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:07 | | |
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **347** | mg/L | 5.0 | 1 | | 09/25/18 12:42 | | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **2.2** | mg/L | 1.0 | 1 | | 09/21/18 20:02 | 7440-44-0 | |
| Total Organic Carbon | **2.3** | mg/L | 1.0 | 1 | | 09/21/18 20:02 | 7440-44-0 | |
| Total Organic Carbon | **2.0** | mg/L | 1.0 | 1 | | 09/21/18 20:02 | 7440-44-0 | |
| Total Organic Carbon | **2.0** | mg/L | 1.0 | 1 | | 09/21/18 20:02 | 7440-44-0 | |
| Mean Total Organic Carbon | **2.1** | mg/L | 1.0 | 1 | | 09/21/18 20:02 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-7A** **Lab ID: 7064634002** Collected: 09/12/18 08:45 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **104J** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-36-0 | |
| Arsenic | **41.3** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-38-2 | |
| Barium | **617** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-41-7 | |
| Boron | **86.5** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-43-9 | |
| Calcium | **48200** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-70-2 | |
| Chromium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-47-3 | |
| Cobalt | **11.8J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-48-4 | |
| Copper | **<25.0** | ug/L | 25.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-50-8 | |
| Iron | **25200** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/25/18 11:49 | 7439-89-6 | |
| Lead | **2.1J** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7439-92-1 | |
| Magnesium | **9510** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7439-95-4 | |
| Manganese | **12700** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 11:49 | 7439-96-5 | |
| Nickel | **4.8J** | ug/L | 40.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-02-0 | |
| Potassium | **17900** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-22-4 | |
| Sodium | **4420J** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-23-5 | |
| Thallium | **14.5** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-28-0 | |
| Vanadium | **1.2J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-62-2 | |
| Zinc | **7.8J** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/24/18 23:28 | 7440-66-6 | B |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **0.13J** | ug/L | 0.20 | 1 | 09/21/18 09:44 | 09/24/18 11:35 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-7A** **Lab ID: 7064634002** Collected: 09/12/18 08:45 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:51 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 110 | % | 68-153 | 1 | | 09/17/18 23:51 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 107 | % | 79-124 | 1 | | 09/17/18 23:51 | 460-00-4 | |
| Toluene-d8 (S) | 90 | % | 69-124 | 1 | | 09/17/18 23:51 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:09 | | |
| **2120B W Apparent Color** | Analytical Method: SM22 2120B | | | | | | | |
| Apparent Color | **75.0** | units | 25.0 | 5 | | 09/13/18 15:32 | | |
| pH | **7.0** | Std. Units | 0.10 | 5 | | 09/13/18 15:32 | | |
| **2320B Alkalinity** | Analytical Method: SM22 2320B | | | | | | | |
| Alkalinity, Total as CaCO3 | **249** | mg/L | 1.0 | 1 | | 09/25/18 04:58 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-7A** **Lab ID: 7064634002** Collected: 09/12/18 08:45 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **187** | mg/L | 5.0 | 1 | | 09/25/18 12:45 | | |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **246** | mg/L | 10.0 | 1 | | 09/18/18 16:34 | | |
| **Chromium, Hexavalent** | Analytical Method: SM22 3500-Cr B | | | | | | | |
| Chromium, Hexavalent | **<0.020** | mg/L | 0.020 | 1 | | 09/13/18 16:39 | 18540-29-9 | H3 |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **50.2** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:34 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **8.3** | mg/L | 2.0 | 1 | 09/13/18 16:22 | 09/18/18 12:19 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **0.30J** | mg/L | 0.50 | 1 | | 09/26/18 19:03 | 24959-67-9 | |
| Chloride | **4.6** | mg/L | 2.0 | 1 | | 09/26/18 19:03 | 16887-00-6 | |
| Sulfate | **24.6** | mg/L | 5.0 | 1 | | 09/26/18 19:03 | 14808-79-8 | |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **0.43** | mg/L | 0.10 | 1 | 09/26/18 06:18 | 09/26/18 14:17 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **0.070** | mg/L | 0.050 | 1 | | 09/13/18 23:26 | 7727-37-9 | |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 20:53 | 14797-65-0 | |
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **9.5** | ug/L | 5.0 | 1 | 09/24/18 12:00 | 09/24/18 15:38 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **1.2** | mg/L | 0.10 | 1 | | 09/25/18 11:58 | 7664-41-7 | |
| **9014 Cyanide, Total** | Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C | | | | | | | |
| Cyanide | **<10.0** | ug/L | 10.0 | 1 | 09/19/18 10:08 | 09/19/18 14:42 | 57-12-5 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **5.7** | mg/L | 1.0 | 1 | | 09/21/18 20:14 | 7440-44-0 | |
| Total Organic Carbon | **5.7** | mg/L | 1.0 | 1 | | 09/21/18 20:14 | 7440-44-0 | |
| Total Organic Carbon | **5.7** | mg/L | 1.0 | 1 | | 09/21/18 20:14 | 7440-44-0 | |
| Total Organic Carbon | **5.7** | mg/L | 1.0 | 1 | | 09/21/18 20:14 | 7440-44-0 | |
| Mean Total Organic Carbon | **5.7** | mg/L | 1.0 | 1 | | 09/21/18 20:14 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-7C** **Lab ID: 7064634003** Collected: 09/12/18 09:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **<200** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-36-0 | |
| Arsenic | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-38-2 | |
| Barium | **140J** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-41-7 | |
| Boron | **13.6J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-43-9 | |
| Calcium | **97800** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-70-2 | |
| Chromium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-47-3 | |
| Cobalt | **<50.0** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-48-4 | |
| Copper | **<25.0** | ug/L | 25.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-50-8 | |
| Iron | **147** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/25/18 11:50 | 7439-89-6 | |
| Lead | **<5.0** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7439-92-1 | |
| Magnesium | **15700** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7439-95-4 | |
| Manganese | **2950** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 11:50 | 7439-96-5 | |
| Nickel | **1.1J** | ug/L | 40.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-02-0 | |
| Potassium | **1790J** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-22-4 | |
| Sodium | **6240** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-23-5 | |
| Thallium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-28-0 | |
| Vanadium | **<50.0** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-62-2 | |
| Zinc | **29.2** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/24/18 23:34 | 7440-66-6 | B |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **0.14J** | ug/L | 0.20 | 1 | 09/21/18 09:44 | 09/24/18 11:37 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 67-64-1 | CH,IH |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-7C** **Lab ID: 7064634003** Collected: 09/12/18 09:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:33 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 112 | % | 68-153 | 1 | | 09/17/18 23:33 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 105 | % | 79-124 | 1 | | 09/17/18 23:33 | 460-00-4 | |
| Toluene-d8 (S) | 88 | % | 69-124 | 1 | | 09/17/18 23:33 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:10 | | |
| **2120B W Apparent Color** | Analytical Method: SM22 2120B | | | | | | | |
| Apparent Color | **15.0** | units | 5.0 | 1 | | 09/13/18 15:32 | | |
| pH | **8.0** | Std. Units | 0.10 | 1 | | 09/13/18 15:32 | | |
| **2320B Alkalinity** | Analytical Method: SM22 2320B | | | | | | | |
| Alkalinity, Total as CaCO3 | **314** | mg/L | 1.0 | 1 | | 09/25/18 05:13 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-7C** **Lab ID: 7064634003** Collected: 09/12/18 09:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **273** | mg/L | 5.0 | 1 | | 09/25/18 12:48 | | |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **323** | mg/L | 10.0 | 1 | | 09/18/18 16:34 | | |
| **Chromium, Hexavalent** | Analytical Method: SM22 3500-Cr B | | | | | | | |
| Chromium, Hexavalent | **<0.020** | mg/L | 0.020 | 1 | | 09/13/18 16:40 | 18540-29-9 | H3 |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **15.5** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:35 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **<2.0** | mg/L | 2.0 | 1 | 09/13/18 16:22 | 09/18/18 12:21 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **0.18J** | mg/L | 0.50 | 1 | | 09/26/18 19:20 | 24959-67-9 | |
| Chloride | **6.3** | mg/L | 2.0 | 1 | | 09/26/18 19:20 | 16887-00-6 | |
| Sulfate | **9.3** | mg/L | 5.0 | 1 | | 09/26/18 19:20 | 14808-79-8 | |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **2.8** | mg/L | 0.10 | 1 | 09/26/18 06:18 | 09/26/18 14:18 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 23:27 | 7727-37-9 | |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 20:54 | 14797-65-0 | |
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **<5.0** | ug/L | 5.0 | 1 | 09/24/18 12:00 | 09/24/18 15:38 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **0.089J** | mg/L | 0.10 | 1 | | 09/25/18 12:04 | 7664-41-7 | B |
| **9014 Cyanide, Total** | Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C | | | | | | | |
| Cyanide | **<10.0** | ug/L | 10.0 | 1 | 09/19/18 10:08 | 09/19/18 14:49 | 57-12-5 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **1.7** | mg/L | 1.0 | 1 | | 09/21/18 20:25 | 7440-44-0 | |
| Total Organic Carbon | **1.7** | mg/L | 1.0 | 1 | | 09/21/18 20:25 | 7440-44-0 | |
| Total Organic Carbon | **1.8** | mg/L | 1.0 | 1 | | 09/21/18 20:25 | 7440-44-0 | |
| Total Organic Carbon | **1.6** | mg/L | 1.0 | 1 | | 09/21/18 20:25 | 7440-44-0 | |
| Mean Total Organic Carbon | **1.7** | mg/L | 1.0 | 1 | | 09/21/18 20:25 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-8B** **Lab ID: 7064634004** Collected: 09/12/18 13:30 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **41.6J** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-36-0 | |
| Arsenic | **22.8** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-38-2 | |
| Barium | **126J** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-41-7 | |
| Boron | **56.5** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-43-9 | |
| Calcium | **74400** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-70-2 | |
| Chromium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-47-3 | |
| Cobalt | **11.6J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-48-4 | |
| Copper | **<25.0** | ug/L | 25.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-50-8 | |
| Iron | **7150** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/25/18 11:51 | 7439-89-6 | M1 |
| Lead | **1.3J** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7439-92-1 | |
| Magnesium | **10700** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7439-95-4 | |
| Manganese | **8250** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 11:51 | 7439-96-5 | M1 |
| Nickel | **4.8J** | ug/L | 40.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-02-0 | |
| Potassium | **3050J** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-22-4 | |
| Sodium | **5100** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-23-5 | |
| Thallium | **10.3** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-28-0 | |
| Vanadium | **1.4J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-62-2 | |
| Zinc | **9.9J** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/24/18 23:39 | 7440-66-6 | B |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **0.14J** | ug/L | 0.20 | 1 | 09/21/18 09:44 | 09/24/18 11:39 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 79-34-5 | CL,M1 |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 79-00-5 | M1 |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 75-34-3 | M1 |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 106-93-4 | M1 |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 78-87-5 | M1,R1 |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 108-10-1 | M1,R1 |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-8B** **Lab ID: 7064634004** Collected: 09/12/18 13:30 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 74-97-5 | M1 |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 56-23-5 | |
| Chlorobenzene | **6.6** | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 1330-20-7 | |
| cis-1,2-Dichloroethene | **6.7** | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 10061-01-5 | M1,R1 |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/18/18 00:27 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 112 | % | 68-153 | 1 | | 09/18/18 00:27 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 109 | % | 79-124 | 1 | | 09/18/18 00:27 | 460-00-4 | |
| Toluene-d8 (S) | 88 | % | 69-124 | 1 | | 09/18/18 00:27 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:29 | | |
| **2120B W Apparent Color** | Analytical Method: SM22 2120B | | | | | | | |
| Apparent Color | **15.0** | units | 5.0 | 1 | | 09/13/18 15:33 | | |
| pH | **7.0** | Std. Units | 0.10 | 1 | | 09/13/18 15:33 | | |
| **2320B Alkalinity** | Analytical Method: SM22 2320B | | | | | | | |
| Alkalinity, Total as CaCO3 | **278** | mg/L | 1.0 | 1 | | 09/25/18 05:28 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-8B** **Lab ID: 7064634004** Collected: 09/12/18 13:30 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **173** | mg/L | 5.0 | 1 | | 09/26/18 12:12 | | |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **279** | mg/L | 10.0 | 1 | | 09/18/18 16:43 | | |
| **Chromium, Hexavalent** | Analytical Method: SM22 3500-Cr B | | | | | | | |
| Chromium, Hexavalent | **<0.020** | mg/L | 0.020 | 1 | | 09/13/18 16:44 | 18540-29-9 | H1 |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **46.1** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:35 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **<2.0** | mg/L | 2.0 | 1 | 09/13/18 16:30 | 09/18/18 12:24 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **<0.50** | mg/L | 0.50 | 1 | | 09/26/18 19:37 | 24959-67-9 | |
| Chloride | **4.9** | mg/L | 2.0 | 1 | | 09/26/18 19:37 | 16887-00-6 | |
| Sulfate | **5.7** | mg/L | 5.0 | 1 | | 09/26/18 19:37 | 14808-79-8 | B |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **2.4** | mg/L | 1.0 | 10 | 09/26/18 06:18 | 09/26/18 14:19 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 23:29 | 7727-37-9 | M1 |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 20:56 | 14797-65-0 | |
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **27.4** | ug/L | 5.0 | 1 | 09/26/18 12:00 | 09/26/18 15:55 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **0.99** | mg/L | 0.10 | 1 | | 09/25/18 12:05 | 7664-41-7 | |
| **9014 Cyanide, Total** | Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C | | | | | | | |
| Cyanide | **<10.0** | ug/L | 10.0 | 1 | 09/23/18 07:33 | 09/23/18 09:29 | 57-12-5 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **6.7** | mg/L | 1.0 | 1 | | 09/24/18 22:50 | 7440-44-0 | |
| Total Organic Carbon | **6.0** | mg/L | 1.0 | 1 | | 09/24/18 22:50 | 7440-44-0 | |
| Total Organic Carbon | **6.1** | mg/L | 1.0 | 1 | | 09/24/18 22:50 | 7440-44-0 | |
| Total Organic Carbon | **5.9** | mg/L | 1.0 | 1 | | 09/24/18 22:50 | 7440-44-0 | |
| Mean Total Organic Carbon | **6.2** | mg/L | 1.0 | 1 | | 09/24/18 22:50 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-9B** **Lab ID: 7064634005** Collected: 09/12/18 10:15 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **430** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-36-0 | |
| Arsenic | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-38-2 | |
| Barium | **37.7J** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-41-7 | |
| Boron | **11.5J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-43-9 | |
| Calcium | **76400** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-70-2 | |
| Chromium | **6.9J** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-47-3 | |
| Cobalt | **1.2J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-48-4 | |
| Copper | **4.4J** | ug/L | 25.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-50-8 | |
| Iron | **1780** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/25/18 11:59 | 7439-89-6 | |
| Lead | **<5.0** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7439-92-1 | |
| Magnesium | **10100** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7439-95-4 | |
| Manganese | **658** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 11:59 | 7439-96-5 | |
| Nickel | **4.2J** | ug/L | 40.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-02-0 | |
| Potassium | **1830J** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-22-4 | |
| Sodium | **5330** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-23-5 | |
| Thallium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-28-0 | |
| Vanadium | **0.93J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-62-2 | |
| Zinc | **323** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/25/18 00:17 | 7440-66-6 | B |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 107-13-1 | CL |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 75-25-2 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-9B** **Lab ID: 7064634005** Collected: 09/12/18 10:15 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 23:14 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 110 | % | 68-153 | 1 | | 09/17/18 23:14 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 102 | % | 79-124 | 1 | | 09/17/18 23:14 | 460-00-4 | |
| Toluene-d8 (S) | 91 | % | 69-124 | 1 | | 09/17/18 23:14 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:15 | | |
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **200** | mg/L | 5.0 | 1 | | 09/26/18 12:20 | | |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **44.1** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:36 | | |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **0.35** | mg/L | 0.10 | 1 | 09/26/18 06:18 | 09/26/18 14:23 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 23:32 | 7727-37-9 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-9B** **Lab ID: 7064634005** Collected: 09/12/18 10:15 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **16.1** | ug/L | 5.0 | 1 | 09/26/18 12:00 | 09/26/18 15:44 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **0.091J** | mg/L | 0.10 | 1 | | 09/25/18 12:11 | 7664-41-7 | B |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **4.4** | mg/L | 1.0 | 1 | | 09/21/18 22:18 | 7440-44-0 | |
| Total Organic Carbon | **3.6** | mg/L | 1.0 | 1 | | 09/21/18 22:18 | 7440-44-0 | |
| Total Organic Carbon | **3.7** | mg/L | 1.0 | 1 | | 09/21/18 22:18 | 7440-44-0 | |
| Total Organic Carbon | **3.3** | mg/L | 1.0 | 1 | | 09/21/18 22:18 | 7440-44-0 | |
| Mean Total Organic Carbon | **3.8** | mg/L | 1.0 | 1 | | 09/21/18 22:18 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
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## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-10B** **Lab ID: 7064634006** Collected: 09/12/18 13:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **68.4J** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-36-0 | |
| Arsenic | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-38-2 | |
| Barium | **65.7J** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-41-7 | |
| Boron | **47.1J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-43-9 | |
| Calcium | **76600** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-70-2 | |
| Chromium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-47-3 | |
| Cobalt | **3.1J** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-48-4 | |
| Copper | **<25.0** | ug/L | 25.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-50-8 | |
| Iron | **865** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/25/18 12:00 | 7439-89-6 | |
| Lead | **<5.0** | ug/L | 5.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7439-92-1 | |
| Magnesium | **23800** | ug/L | 200 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7439-95-4 | |
| Manganese | **5590** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 12:00 | 7439-96-5 | |
| Nickel | **4.1J** | ug/L | 40.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-02-0 | |
| Potassium | **2410J** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-22-4 | |
| Sodium | **9640** | ug/L | 5000 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-23-5 | |
| Thallium | **6.6J** | ug/L | 10.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-28-0 | |
| Vanadium | **<50.0** | ug/L | 50.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-62-2 | |
| Zinc | **9.4J** | ug/L | 20.0 | 1 | 09/22/18 10:00 | 09/25/18 00:22 | 7440-66-6 | B |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **0.13J** | ug/L | 0.20 | 1 | 09/21/18 09:44 | 09/24/18 11:44 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 79-00-5 | |
| 1,1-Dichloroethane | **9.5** | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-10B** **Lab ID: 7064634006** Collected: 09/12/18 13:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 1330-20-7 | |
| cis-1,2-Dichloroethene | **38.2** | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:56 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 109 | % | 68-153 | 1 | | 09/17/18 22:56 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 110 | % | 79-124 | 1 | | 09/17/18 22:56 | 460-00-4 | |
| Toluene-d8 (S) | 90 | % | 69-124 | 1 | | 09/17/18 22:56 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:16 | | |
| **2120B W Apparent Color** | Analytical Method: SM22 2120B | | | | | | | |
| Apparent Color | **5.0** | units | 5.0 | 1 | | 09/13/18 15:32 | | |
| pH | **7.0** | Std. Units | 0.10 | 1 | | 09/13/18 15:32 | | |
| **2320B Alkalinity** | Analytical Method: SM22 2320B | | | | | | | |
| Alkalinity, Total as CaCO3 | **307** | mg/L | 1.0 | 1 | | 09/25/18 06:13 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-10B** **Lab ID: 7064634006** Collected: 09/12/18 13:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **227** | mg/L | 5.0 | 1 | | 09/26/18 12:23 | | |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **308** | mg/L | 10.0 | 1 | | 09/18/18 16:34 | | |
| **Chromium, Hexavalent** | Analytical Method: SM22 3500-Cr B | | | | | | | |
| Chromium, Hexavalent | **<0.020** | mg/L | 0.020 | 1 | | 09/13/18 16:43 | 18540-29-9 | H1 |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **29.8** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:36 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **7.0** | mg/L | 2.0 | 1 | 09/13/18 16:30 | 09/18/18 12:28 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **0.30J** | mg/L | 0.50 | 1 | | 09/26/18 20:27 | 24959-67-9 | |
| Chloride | **10.9** | mg/L | 2.0 | 1 | | 09/26/18 20:27 | 16887-00-6 | |
| Sulfate | **6.1** | mg/L | 5.0 | 1 | | 09/26/18 20:27 | 14808-79-8 | |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **0.53** | mg/L | 0.10 | 1 | 09/26/18 06:18 | 09/26/18 14:24 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 23:36 | 7727-37-9 | |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 21:01 | 14797-65-0 | |
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **11.0** | ug/L | 5.0 | 1 | 09/26/18 12:00 | 09/26/18 15:44 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **0.32** | mg/L | 0.10 | 1 | | 09/25/18 12:13 | 7664-41-7 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **2.9** | mg/L | 1.0 | 1 | | 09/21/18 22:29 | 7440-44-0 | |
| Total Organic Carbon | **2.9** | mg/L | 1.0 | 1 | | 09/21/18 22:29 | 7440-44-0 | |
| Total Organic Carbon | **2.8** | mg/L | 1.0 | 1 | | 09/21/18 22:29 | 7440-44-0 | |
| Total Organic Carbon | **2.9** | mg/L | 1.0 | 1 | | 09/21/18 22:29 | 7440-44-0 | |
| Mean Total Organic Carbon | **2.9** | mg/L | 1.0 | 1 | | 09/21/18 22:29 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-11B** **Lab ID: 7064634007** Collected: 09/12/18 09:25 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 67-64-1 | CH,IH |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 107-13-1 | CL |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:39 | 110-57-6 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-11B** **Lab ID: 7064634007** Collected: 09/12/18 09:25 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 112 | % | 68-153 | 1 | | 09/17/18 22:39 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 111 | % | 79-124 | 1 | | 09/17/18 22:39 | 460-00-4 | |
| Toluene-d8 (S) | 93 | % | 69-124 | 1 | | 09/17/18 22:39 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:17 | | |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **87.0** | mg/L | 10.0 | 1 | | 09/18/18 16:34 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **<2.0** | mg/L | 2.0 | 1 | 09/13/18 16:22 | 09/18/18 12:31 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **<0.50** | mg/L | 0.50 | 1 | | 09/26/18 21:17 | 24959-67-9 | |
| Chloride | **48.8** | mg/L | 2.0 | 1 | | 09/26/18 21:17 | 16887-00-6 | |
| Sulfate | **2.5J** | mg/L | 5.0 | 1 | | 09/26/18 21:17 | 14808-79-8 | B |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 21:03 | 14797-65-0 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **5.1** | mg/L | 1.0 | 1 | | 09/21/18 22:40 | 7440-44-0 | |
| Total Organic Carbon | **5.0** | mg/L | 1.0 | 1 | | 09/21/18 22:40 | 7440-44-0 | |
| Total Organic Carbon | **4.9** | mg/L | 1.0 | 1 | | 09/21/18 22:40 | 7440-44-0 | |
| Total Organic Carbon | **4.9** | mg/L | 1.0 | 1 | | 09/21/18 22:40 | 7440-44-0 | |
| Mean Total Organic Carbon | **5.0** | mg/L | 1.0 | 1 | | 09/21/18 22:40 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-12A** **Lab ID: 7064634008** Collected: 09/12/18 10:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 108-10-1 | |
| Acetone | **7.6** | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 67-64-1 | CH,IH |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 107-13-1 | CL |
| Benzene | **5.2** | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 56-23-5 | |
| Chlorobenzene | **8.1** | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:21 | 110-57-6 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-12A** **Lab ID: 7064634008** Collected: 09/12/18 10:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 109 | % | 68-153 | 1 | | 09/17/18 22:21 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 104 | % | 79-124 | 1 | | 09/17/18 22:21 | 460-00-4 | |
| Toluene-d8 (S) | 90 | % | 69-124 | 1 | | 09/17/18 22:21 | 2037-26-5 | |
| ***Tentatively Identified Compounds*** | | | | | | | | |
| Difluorochloromethane | **7.1J** | ug/L | | 1 | | 09/17/18 22:21 | 75-45-6 | N |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **394** | mg/L | 10.0 | 1 | | 09/18/18 16:37 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **14.4** | mg/L | 2.0 | 1 | 09/13/18 16:23 | 09/18/18 12:33 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **0.24J** | mg/L | 0.50 | 1 | | 09/26/18 21:34 | 24959-67-9 | |
| Chloride | **7.1** | mg/L | 2.0 | 1 | | 09/26/18 21:34 | 16887-00-6 | |
| Sulfate | **7.4** | mg/L | 5.0 | 1 | | 09/26/18 21:34 | 14808-79-8 | |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 21:04 | 14797-65-0 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **11.4** | mg/L | 1.0 | 1 | | 09/21/18 22:52 | 7440-44-0 | |
| Total Organic Carbon | **12.4** | mg/L | 1.0 | 1 | | 09/21/18 22:52 | 7440-44-0 | |
| Total Organic Carbon | **11.7** | mg/L | 1.0 | 1 | | 09/21/18 22:52 | 7440-44-0 | |
| Total Organic Carbon | **11.4** | mg/L | 1.0 | 1 | | 09/21/18 22:52 | 7440-44-0 | |
| Mean Total Organic Carbon | **11.7** | mg/L | 1.0 | 1 | | 09/21/18 22:52 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-12B** **Lab ID: 7064634009** Collected: 09/12/18 09:45 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **96.0J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-36-0 | |
| Arsenic | **8.5J** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-38-2 | |
| Barium | **325** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-41-7 | |
| Boron | **125** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-43-9 | |
| Calcium | **127000** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-70-2 | |
| Chromium | **10.7** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-47-3 | |
| Cobalt | **6.3J** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-48-4 | |
| Copper | **<25.0** | ug/L | 25.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-50-8 | |
| Iron | **11000** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7439-89-6 | |
| Lead | **1.6J** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7439-92-1 | B |
| Magnesium | **23800** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7439-95-4 | |
| Manganese | **9540** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7439-96-5 | |
| Nickel | **4.6J** | ug/L | 40.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-02-0 | |
| Potassium | **5520** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-22-4 | |
| Sodium | **15000** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-23-5 | |
| Thallium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-28-0 | |
| Vanadium | **1.2J** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-62-2 | |
| Zinc | **4.5J** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 22:27 | 7440-66-6 | B |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **0.14J** | ug/L | 0.20 | 1 | 09/21/18 09:44 | 09/24/18 11:45 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 67-64-1 | CH,IH |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-12B** **Lab ID: 7064634009** Collected: 09/12/18 09:45 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | **5.8** | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 56-23-5 | |
| Chlorobenzene | **7.0** | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 22:03 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 111 | % | 68-153 | 1 | | 09/17/18 22:03 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 105 | % | 79-124 | 1 | | 09/17/18 22:03 | 460-00-4 | |
| Toluene-d8 (S) | 90 | % | 69-124 | 1 | | 09/17/18 22:03 | 2037-26-5 | |
| ***Tentatively Identified Compounds*** | | | | | | | | |
| Difluorochloromethane | **7.3J** | ug/L | | 1 | | 09/17/18 22:03 | 75-45-6 | N |
| **2120B W Apparent Color** | Analytical Method: SM22 2120B | | | | | | | |
| Apparent Color | **75.0** | units | 25.0 | 5 | | 09/13/18 15:32 | | |
| pH | **8.0** | Std. Units | 0.10 | 5 | | 09/13/18 15:32 | | |
| **2320B Alkalinity** | Analytical Method: SM22 2320B | | | | | | | |
| Alkalinity, Total as CaCO3 | **496** | mg/L | 1.0 | 1 | | 09/25/18 06:35 | | |
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **340** | mg/L | 5.0 | 1 | | 09/26/18 12:27 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-12B** **Lab ID: 7064634009** Collected: 09/12/18 09:45 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **458** | mg/L | 10.0 | 1 | | 09/18/18 16:39 | | |
| **Chromium, Hexavalent** | Analytical Method: SM22 3500-Cr B | | | | | | | |
| Chromium, Hexavalent | **0.0061J** | mg/L | 0.020 | 1 | | 09/13/18 16:40 | 18540-29-9 | H3 |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **74.7** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:37 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **7.6** | mg/L | 2.0 | 1 | 09/13/18 16:23 | 09/18/18 12:35 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **0.40J** | mg/L | 0.50 | 1 | | 09/26/18 21:51 | 24959-67-9 | |
| Chloride | **10.8** | mg/L | 2.0 | 1 | | 09/26/18 21:51 | 16887-00-6 | |
| Sulfate | **2.5J** | mg/L | 5.0 | 1 | | 09/26/18 21:51 | 14808-79-8 | B |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **4.7** | mg/L | 0.10 | 1 | 09/26/18 06:18 | 09/26/18 14:25 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **0.052** | mg/L | 0.050 | 1 | | 09/13/18 23:37 | 7727-37-9 | |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 21:05 | 14797-65-0 | |
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **49.0** | ug/L | 5.0 | 1 | 09/26/18 12:00 | 09/26/18 15:44 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **2.2** | mg/L | 0.10 | 1 | | 09/25/18 12:14 | 7664-41-7 | |
| **9014 Cyanide, Total** | Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C | | | | | | | |
| Cyanide | **<10.0** | ug/L | 10.0 | 1 | 09/23/18 07:33 | 09/23/18 09:30 | 57-12-5 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **9.0** | mg/L | 1.0 | 1 | | 09/21/18 23:05 | 7440-44-0 | |
| Total Organic Carbon | **8.9** | mg/L | 1.0 | 1 | | 09/21/18 23:05 | 7440-44-0 | |
| Total Organic Carbon | **9.1** | mg/L | 1.0 | 1 | | 09/21/18 23:05 | 7440-44-0 | |
| Total Organic Carbon | **8.8** | mg/L | 1.0 | 1 | | 09/21/18 23:05 | 7440-44-0 | |
| Mean Total Organic Carbon | **9.0** | mg/L | 1.0 | 1 | | 09/21/18 23:05 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-13** **Lab ID: 7064634010** Collected: 09/12/18 12:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **69.7J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7429-90-5 | |
| Antimony | **3.5J** | ug/L | 60.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-36-0 | |
| Arsenic | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-38-2 | |
| Barium | **19.4J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-41-7 | |
| Boron | **73.4** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-43-9 | |
| Calcium | **50300** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-70-2 | |
| Chromium | **4.4J** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-47-3 | |
| Cobalt | **<50.0** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-48-4 | |
| Copper | **<25.0** | ug/L | 25.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-50-8 | |
| Iron | **95.2** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7439-89-6 | |
| Lead | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7439-92-1 | |
| Magnesium | **13800** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7439-95-4 | |
| Manganese | **170** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7439-96-5 | |
| Nickel | **1.7J** | ug/L | 40.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-02-0 | |
| Potassium | **1580J** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-22-4 | |
| Sodium | **11600** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-23-5 | |
| Thallium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-28-0 | |
| Vanadium | **<50.0** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-62-2 | |
| Zinc | **29.5** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 22:43 | 7440-66-6 | B |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **<0.20** | ug/L | 0.20 | 1 | 09/18/18 10:33 | 09/18/18 16:11 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-13** **Lab ID: 7064634010** Collected: 09/12/18 12:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:45 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 110 | % | 68-153 | 1 | | 09/17/18 21:45 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 105 | % | 79-124 | 1 | | 09/17/18 21:45 | 460-00-4 | |
| Toluene-d8 (S) | 94 | % | 69-124 | 1 | | 09/17/18 21:45 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:22 | | |
| **2120B W Apparent Color** | Analytical Method: SM22 2120B | | | | | | | |
| Apparent Color | **10.0** | units | 5.0 | 1 | | 09/13/18 15:32 | | |
| pH | **8.0** | Std. Units | 0.10 | 1 | | 09/13/18 15:32 | | |
| **2320B Alkalinity** | Analytical Method: SM22 2320B | | | | | | | |
| Alkalinity, Total as CaCO3 | **53.6** | mg/L | 1.0 | 1 | | 09/25/18 06:44 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-13** **Lab ID: 7064634010** Collected: 09/12/18 12:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **113** | mg/L | 5.0 | 1 | | 09/26/18 12:57 | | |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **181** | mg/L | 10.0 | 1 | | 09/18/18 16:39 | | |
| **Chromium, Hexavalent** | Analytical Method: SM22 3500-Cr B | | | | | | | |
| Chromium, Hexavalent | **<0.020** | mg/L | 0.020 | 1 | | 09/13/18 16:41 | 18540-29-9 | H1 |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **21.6** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:37 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **<2.0** | mg/L | 2.0 | 1 | 09/13/18 16:30 | 09/18/18 13:04 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **0.16J** | mg/L | 0.50 | 1 | | 09/26/18 22:07 | 24959-67-9 | |
| Chloride | **4.0** | mg/L | 2.0 | 1 | | 09/26/18 22:07 | 16887-00-6 | |
| Sulfate | **4.7J** | mg/L | 5.0 | 1 | | 09/26/18 22:07 | 14808-79-8 | B |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **0.23** | mg/L | 0.10 | 1 | 09/26/18 06:18 | 09/26/18 14:27 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **0.062** | mg/L | 0.050 | 1 | | 09/13/18 23:38 | 7727-37-9 | |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 21:06 | 14797-65-0 | |
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **4.3J** | ug/L | 5.0 | 1 | 09/26/18 12:00 | 09/26/18 15:45 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **0.14** | mg/L | 0.10 | 1 | | 09/25/18 12:15 | 7664-41-7 | B |
| **9014 Cyanide, Total** | Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C | | | | | | | |
| Cyanide | **<10.0** | ug/L | 10.0 | 1 | 09/23/18 07:33 | 09/23/18 09:30 | 57-12-5 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **3.0** | mg/L | 1.0 | 1 | | 09/22/18 01:10 | 7440-44-0 | |
| Total Organic Carbon | **2.9** | mg/L | 1.0 | 1 | | 09/22/18 01:10 | 7440-44-0 | |
| Total Organic Carbon | **3.0** | mg/L | 1.0 | 1 | | 09/22/18 01:10 | 7440-44-0 | |
| Total Organic Carbon | **2.9** | mg/L | 1.0 | 1 | | 09/22/18 01:10 | 7440-44-0 | |
| Mean Total Organic Carbon | **2.9** | mg/L | 1.0 | 1 | | 09/22/18 01:10 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-14** **Lab ID: 7064634011** Collected: 09/12/18 10:45 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **76.6J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-36-0 | |
| Arsenic | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-38-2 | |
| Barium | **40.5J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-41-7 | |
| Boron | **22.5J** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-43-9 | |
| Calcium | **66100** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-70-2 | |
| Chromium | **3.2J** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-47-3 | |
| Cobalt | **<50.0** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-48-4 | |
| Copper | **<25.0** | ug/L | 25.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-50-8 | |
| Iron | **55.2** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7439-89-6 | |
| Lead | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7439-92-1 | |
| Magnesium | **15900** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7439-95-4 | |
| Manganese | **183** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7439-96-5 | |
| Nickel | **<40.0** | ug/L | 40.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-02-0 | |
| Potassium | **2320J** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-22-4 | |
| Sodium | **11100** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-23-5 | |
| Thallium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-28-0 | |
| Vanadium | **<50.0** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-62-2 | |
| Zinc | **5.1J** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 22:49 | 7440-66-6 | B |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **<0.20** | ug/L | 0.20 | 1 | 09/18/18 10:33 | 09/18/18 16:13 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 67-64-1 | CH,IH |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-14** **Lab ID: 7064634011** Collected: 09/12/18 10:45 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:27 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 110 | % | 68-153 | 1 | | 09/17/18 21:27 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 104 | % | 79-124 | 1 | | 09/17/18 21:27 | 460-00-4 | |
| Toluene-d8 (S) | 89 | % | 69-124 | 1 | | 09/17/18 21:27 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:23 | | |
| **2120B W Apparent Color** | Analytical Method: SM22 2120B | | | | | | | |
| Apparent Color | **5.0** | units | 5.0 | 1 | | 09/13/18 15:32 | | |
| pH | **8.0** | Std. Units | 0.10 | 1 | | 09/13/18 15:32 | | |
| **2320B Alkalinity** | Analytical Method: SM22 2320B | | | | | | | |
| Alkalinity, Total as CaCO3 | **232** | mg/L | 1.0 | 1 | | 09/26/18 09:11 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: MW-14** **Lab ID: 7064634011** Collected: 09/12/18 10:45 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **187** | mg/L | 5.0 | 1 | | 09/26/18 13:02 | | |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **216** | mg/L | 10.0 | 1 | | 09/18/18 16:39 | | |
| **Chromium, Hexavalent** | Analytical Method: SM22 3500-Cr B | | | | | | | |
| Chromium, Hexavalent | **<0.020** | mg/L | 0.020 | 1 | | 09/13/18 16:41 | 18540-29-9 | H1 |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **27.7** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:37 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **<2.0** | mg/L | 2.0 | 1 | 09/13/18 16:30 | 09/18/18 13:06 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **0.021J** | mg/L | 0.50 | 1 | | 09/26/18 22:24 | 24959-67-9 | |
| Chloride | **2.3** | mg/L | 2.0 | 1 | | 09/26/18 22:24 | 16887-00-6 | |
| Sulfate | **14.6** | mg/L | 5.0 | 1 | | 09/26/18 22:24 | 14808-79-8 | |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **<0.10** | mg/L | 0.10 | 1 | 09/26/18 06:18 | 09/26/18 14:28 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 23:39 | 7727-37-9 | |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 21:07 | 14797-65-0 | |
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **7.4** | ug/L | 5.0 | 1 | 09/26/18 12:00 | 09/26/18 15:45 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **0.047J** | mg/L | 0.10 | 1 | | 09/25/18 12:16 | 7664-41-7 | B |
| **9014 Cyanide, Total** | Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C | | | | | | | |
| Cyanide | **<10.0** | ug/L | 10.0 | 1 | 09/23/18 07:33 | 09/23/18 09:30 | 57-12-5 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **0.71J** | mg/L | 1.0 | 1 | | 09/22/18 01:20 | 7440-44-0 | |
| Total Organic Carbon | **0.84J** | mg/L | 1.0 | 1 | | 09/22/18 01:20 | 7440-44-0 | |
| Total Organic Carbon | **0.92J** | mg/L | 1.0 | 1 | | 09/22/18 01:20 | 7440-44-0 | |
| Total Organic Carbon | **0.78J** | mg/L | 1.0 | 1 | | 09/22/18 01:20 | 7440-44-0 | |
| Mean Total Organic Carbon | **0.81J** | mg/L | 1.0 | 1 | | 09/22/18 01:20 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: SEEP** **Lab ID: 7064634012** Collected: 09/12/18 12:15 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **77.9J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-36-0 | |
| Arsenic | **28.8** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-38-2 | |
| Barium | **177J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-41-7 | |
| Boron | **85.2** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-43-9 | |
| Calcium | **52400** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-70-2 | |
| Chromium | **10.7** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-47-3 | |
| Cobalt | **8.1J** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-48-4 | |
| Copper | **<25.0** | ug/L | 25.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-50-8 | |
| Iron | **14300** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7439-89-6 | |
| Lead | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7439-92-1 | |
| Magnesium | **16600** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7439-95-4 | |
| Manganese | **10600** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7439-96-5 | |
| Nickel | **3.1J** | ug/L | 40.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-02-0 | |
| Potassium | **4240J** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-22-4 | |
| Sodium | **6640** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-23-5 | |
| Thallium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-28-0 | |
| Vanadium | **1.4J** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-62-2 | |
| Zinc | **<20.0** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 22:54 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **<0.20** | ug/L | 0.20 | 1 | 09/18/18 10:33 | 09/18/18 16:19 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: SEEP** **Lab ID: 7064634012** Collected: 09/12/18 12:15 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 1330-20-7 | |
| cis-1,2-Dichloroethene | **9.6** | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 21:09 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 111 | % | 68-153 | 1 | | 09/17/18 21:09 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 106 | % | 79-124 | 1 | | 09/17/18 21:09 | 460-00-4 | |
| Toluene-d8 (S) | 93 | % | 69-124 | 1 | | 09/17/18 21:09 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:24 | | |
| **2120B W Apparent Color** | Analytical Method: SM22 2120B | | | | | | | |
| Apparent Color | **125** | units | 25.0 | 5 | | 09/13/18 15:32 | | |
| pH | **7.0** | Std. Units | 0.10 | 5 | | 09/13/18 15:32 | | |
| **2320B Alkalinity** | Analytical Method: SM22 2320B | | | | | | | |
| Alkalinity, Total as CaCO3 | **231** | mg/L | 1.0 | 1 | | 09/26/18 09:23 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: SEEP** **Lab ID: 7064634012** Collected: 09/12/18 12:15 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **200** | mg/L | 5.0 | 1 | | 09/26/18 13:18 | | |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **217** | mg/L | 10.0 | 1 | | 09/18/18 16:39 | | |
| **Chromium, Hexavalent** | Analytical Method: SM22 3500-Cr B | | | | | | | |
| Chromium, Hexavalent | **<0.020** | mg/L | 0.020 | 1 | | 09/13/18 16:41 | 18540-29-9 | H1 |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **44.1** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:37 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **<2.0** | mg/L | 2.0 | 1 | 09/13/18 16:30 | 09/18/18 13:08 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **0.24J** | mg/L | 0.50 | 1 | | 09/26/18 22:41 | 24959-67-9 | |
| Chloride | **4.7** | mg/L | 2.0 | 1 | | 09/26/18 22:41 | 16887-00-6 | |
| Sulfate | **5.6** | mg/L | 5.0 | 1 | | 09/26/18 22:41 | 14808-79-8 | B |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **2.9** | mg/L | 0.10 | 1 | 09/26/18 06:18 | 09/26/18 14:29 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 23:40 | 7727-37-9 | |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 21:09 | 14797-65-0 | |
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **7.9** | ug/L | 5.0 | 1 | 09/26/18 12:00 | 09/26/18 15:52 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **3.0** | mg/L | 0.10 | 1 | | 09/25/18 12:17 | 7664-41-7 | |
| **9014 Cyanide, Total** | Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C | | | | | | | |
| Cyanide | **<10.0** | ug/L | 10.0 | 1 | 09/23/18 07:33 | 09/23/18 09:30 | 57-12-5 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **5.3** | mg/L | 1.0 | 1 | | 09/22/18 01:32 | 7440-44-0 | |
| Total Organic Carbon | **5.4** | mg/L | 1.0 | 1 | | 09/22/18 01:32 | 7440-44-0 | |
| Total Organic Carbon | **5.3** | mg/L | 1.0 | 1 | | 09/22/18 01:32 | 7440-44-0 | |
| Total Organic Carbon | **5.4** | mg/L | 1.0 | 1 | | 09/22/18 01:32 | 7440-44-0 | |
| Mean Total Organic Carbon | **5.4** | mg/L | 1.0 | 1 | | 09/22/18 01:32 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: STREAM** **Lab ID: 7064634013** Collected: 09/12/18 12:30 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **139J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-36-0 | |
| Arsenic | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-38-2 | |
| Barium | **10.0J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-41-7 | |
| Boron | **28.8J** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-43-9 | |
| Calcium | **28600** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-70-2 | |
| Chromium | **3.1J** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-47-3 | |
| Cobalt | **<50.0** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-48-4 | |
| Copper | **4.6J** | ug/L | 25.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-50-8 | |
| Iron | **224** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7439-89-6 | |
| Lead | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7439-92-1 | |
| Magnesium | **7740** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7439-95-4 | |
| Manganese | **242** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7439-96-5 | |
| Nickel | **1.3J** | ug/L | 40.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-02-0 | |
| Potassium | **2450J** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-22-4 | |
| Sodium | **2290J** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-23-5 | |
| Thallium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-28-0 | |
| Vanadium | **<50.0** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-62-2 | |
| Zinc | **<20.0** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 23:00 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **<0.20** | ug/L | 0.20 | 1 | 09/18/18 10:33 | 09/18/18 16:21 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: STREAM** **Lab ID: 7064634013** Collected: 09/12/18 12:30 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:51 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 113 | % | 68-153 | 1 | | 09/17/18 20:51 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 110 | % | 79-124 | 1 | | 09/17/18 20:51 | 460-00-4 | |
| Toluene-d8 (S) | 89 | % | 69-124 | 1 | | 09/17/18 20:51 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:25 | | |
| **2120B W Apparent Color** | Analytical Method: SM22 2120B | | | | | | | |
| Apparent Color | **30.0** | units | 5.0 | 1 | | 09/13/18 15:32 | | |
| pH | **7.0** | Std. Units | 0.10 | 1 | | 09/13/18 15:32 | | |
| **2320B Alkalinity** | Analytical Method: SM22 2320B | | | | | | | |
| Alkalinity, Total as CaCO3 | **103** | mg/L | 1.0 | 1 | | 09/26/18 08:12 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: STREAM** **Lab ID: 7064634013** Collected: 09/12/18 12:30 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **80.0** | mg/L | 5.0 | 1 | | 09/26/18 13:21 | | |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **113** | mg/L | 10.0 | 1 | | 09/18/18 16:39 | | |
| **Chromium, Hexavalent** | Analytical Method: SM22 3500-Cr B | | | | | | | |
| Chromium, Hexavalent | **<0.020** | mg/L | 0.020 | 1 | | 09/13/18 16:42 | 18540-29-9 | H1 |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **44.1** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:37 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **<2.0** | mg/L | 2.0 | 1 | 09/13/18 16:30 | 09/18/18 13:11 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **0.056J** | mg/L | 0.50 | 1 | | 09/26/18 22:58 | 24959-67-9 | |
| Chloride | **1.3J** | mg/L | 2.0 | 1 | | 09/26/18 22:58 | 16887-00-6 | |
| Sulfate | **6.9** | mg/L | 5.0 | 1 | | 09/26/18 22:58 | 14808-79-8 | |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **0.31** | mg/L | 0.10 | 1 | 09/26/18 06:18 | 09/26/18 14:30 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 23:42 | 7727-37-9 | |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 21:10 | 14797-65-0 | |
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **8.9** | ug/L | 5.0 | 1 | 09/26/18 12:00 | 09/26/18 15:52 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **0.058J** | mg/L | 0.10 | 1 | | 09/25/18 12:19 | 7664-41-7 | B |
| **9014 Cyanide, Total** | Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C | | | | | | | |
| Cyanide | **<10.0** | ug/L | 10.0 | 1 | 09/23/18 07:33 | 09/23/18 09:31 | 57-12-5 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **7.4** | mg/L | 1.0 | 1 | | 09/22/18 01:44 | 7440-44-0 | |
| Total Organic Carbon | **7.4** | mg/L | 1.0 | 1 | | 09/22/18 01:44 | 7440-44-0 | |
| Total Organic Carbon | **7.5** | mg/L | 1.0 | 1 | | 09/22/18 01:44 | 7440-44-0 | |
| Total Organic Carbon | **7.4** | mg/L | 1.0 | 1 | | 09/22/18 01:44 | 7440-44-0 | |
| Mean Total Organic Carbon | **7.5** | mg/L | 1.0 | 1 | | 09/22/18 01:44 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: DUP** **Lab ID: 7064634014** Collected: 09/12/18 00:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP** | Analytical Method: EPA 6010C Preparation Method: EPA 3005A | | | | | | | |
| Aluminum | **100J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7429-90-5 | |
| Antimony | **<60.0** | ug/L | 60.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-36-0 | |
| Arsenic | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-38-2 | |
| Barium | **69.6J** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-39-3 | |
| Beryllium | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-41-7 | |
| Boron | **50.7** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-42-8 | |
| Cadmium | **<2.5** | ug/L | 2.5 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-43-9 | |
| Calcium | **81900** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-70-2 | |
| Chromium | **5.2J** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-47-3 | |
| Cobalt | **2.7J** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-48-4 | |
| Copper | **<25.0** | ug/L | 25.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-50-8 | |
| Iron | **858** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7439-89-6 | |
| Lead | **<5.0** | ug/L | 5.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7439-92-1 | |
| Magnesium | **25700** | ug/L | 200 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7439-95-4 | |
| Manganese | **6420** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7439-96-5 | |
| Nickel | **4.5J** | ug/L | 40.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-02-0 | |
| Potassium | **2930J** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-09-7 | |
| Selenium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7782-49-2 | |
| Silver | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-22-4 | |
| Sodium | **10500** | ug/L | 5000 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-23-5 | |
| Thallium | **<10.0** | ug/L | 10.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-28-0 | |
| Vanadium | **0.90J** | ug/L | 50.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-62-2 | |
| Zinc | **3.2J** | ug/L | 20.0 | 1 | 09/18/18 10:35 | 09/18/18 23:05 | 7440-66-6 | B |
| **7470 Mercury** | Analytical Method: EPA 7470A Preparation Method: EPA 7470A | | | | | | | |
| Mercury | **<0.20** | ug/L | 0.20 | 1 | 09/18/18 10:33 | 09/18/18 16:22 | 7439-97-6 | |
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 79-00-5 | |
| 1,1-Dichloroethane | **11.4** | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 107-13-1 | CL |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: DUP** **Lab ID: 7064634014** Collected: 09/12/18 00:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 108-05-4 | CL |
| Vinyl chloride | **5.0** | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 1330-20-7 | |
| cis-1,2-Dichloroethene | **45.5** | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:33 | 110-57-6 | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 115 | % | 68-153 | 1 | | 09/17/18 20:33 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 109 | % | 79-124 | 1 | | 09/17/18 20:33 | 460-00-4 | |
| Toluene-d8 (S) | 89 | % | 69-124 | 1 | | 09/17/18 20:33 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:26 | | |
| **2120B W Apparent Color** | Analytical Method: SM22 2120B | | | | | | | |
| Apparent Color | **5.0** | units | 5.0 | 1 | | 09/13/18 15:32 | | |
| pH | **8.0** | Std. Units | 0.10 | 1 | | 09/13/18 15:32 | | |
| **2320B Alkalinity** | Analytical Method: SM22 2320B | | | | | | | |
| Alkalinity, Total as CaCO3 | **347** | mg/L | 1.0 | 1 | | 09/26/18 08:46 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: DUP** **Lab ID: 7064634014** Collected: 09/12/18 00:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **2340C Hardness, Total** | Analytical Method: SM22 2340C | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **17.3** | mg/L | 5.0 | 1 | | 09/26/18 13:26 | | |
| **2540C Total Dissolved Solids** | Analytical Method: SM22 2540C | | | | | | | |
| Total Dissolved Solids | **299** | mg/L | 10.0 | 1 | | 09/18/18 16:40 | | |
| **Chromium, Hexavalent** | Analytical Method: SM22 3500-Cr B | | | | | | | |
| Chromium, Hexavalent | **<0.020** | mg/L | 0.020 | 1 | | 09/13/18 16:37 | 18540-29-9 | H3 |
| **410.4 COD** | Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 | | | | | | | |
| Chemical Oxygen Demand | **31.8** | mg/L | 10.0 | 1 | 09/20/18 10:07 | 09/20/18 12:37 | | |
| **5210B BOD, 5 day** | Analytical Method: SM22 5210B Preparation Method: SM22 5210B | | | | | | | |
| BOD, 5 day | **<2.0** | mg/L | 2.0 | 1 | 09/13/18 16:22 | 09/18/18 13:13 | | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | |
| Bromide | **0.31J** | mg/L | 0.50 | 1 | | 09/26/18 23:14 | 24959-67-9 | |
| Chloride | **10.7** | mg/L | 2.0 | 1 | | 09/26/18 23:14 | 16887-00-6 | |
| Sulfate | **5.8** | mg/L | 5.0 | 1 | | 09/26/18 23:14 | 14808-79-8 | B |
| **351.2 Total Kjeldahl Nitrogen** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 | | | | | | | |
| Nitrogen, Kjeldahl, Total | **0.38** | mg/L | 0.10 | 1 | 09/26/18 06:18 | 09/26/18 14:32 | 7727-37-9 | |
| **353.2 Nitrogen, NO2/NO3 pres.** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrate-Nitrite (as N) | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 23:43 | 7727-37-9 | |
| **353.2 Nitrogen, NO2** | Analytical Method: EPA 353.2 | | | | | | | |
| Nitrite as N | **<0.050** | mg/L | 0.050 | 1 | | 09/13/18 21:13 | 14797-65-0 | |
| **Phenolics, Total Recoverable** | Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 | | | | | | | |
| Phenolics, Total Recoverable | **12.5** | ug/L | 5.0 | 1 | 09/26/18 12:00 | 09/26/18 15:53 | | |
| **4500 Ammonia Water** | Analytical Method: SM22 4500 NH3 H | | | | | | | |
| Nitrogen, Ammonia | **0.30** | mg/L | 0.10 | 1 | | 09/25/18 12:20 | 7664-41-7 | |
| **9014 Cyanide, Total** | Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C | | | | | | | |
| Cyanide | **<10.0** | ug/L | 10.0 | 1 | 09/23/18 07:33 | 09/23/18 09:31 | 57-12-5 | |
| **9060A TOC as NPOC** | Analytical Method: EPA 9060A | | | | | | | |
| Total Organic Carbon | **3.0** | mg/L | 1.0 | 1 | | 09/22/18 01:55 | 7440-44-0 | |
| Total Organic Carbon | **3.1** | mg/L | 1.0 | 1 | | 09/22/18 01:55 | 7440-44-0 | |
| Total Organic Carbon | **3.2** | mg/L | 1.0 | 1 | | 09/22/18 01:55 | 7440-44-0 | |
| Total Organic Carbon | **3.1** | mg/L | 1.0 | 1 | | 09/22/18 01:55 | 7440-44-0 | |
| Mean Total Organic Carbon | **3.1** | mg/L | 1.0 | 1 | | 09/22/18 01:55 | 7440-44-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: TRIP BLANK** **Lab ID: 7064634015** Collected: 09/12/18 00:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 107-13-1 | CL |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 20:15 | 110-57-6 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: TRIP BLANK** **Lab ID: 7064634015** Collected: 09/12/18 00:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 116 | % | 68-153 | 1 | | 09/17/18 20:15 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 109 | % | 79-124 | 1 | | 09/17/18 20:15 | 460-00-4 | |
| Toluene-d8 (S) | 89 | % | 69-124 | 1 | | 09/17/18 20:15 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:27 | | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: STORAGE BLANK** **Lab ID: 7064634016** Collected: 09/12/18 00:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 630-20-6 | |
| 1,1,1-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 71-55-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 79-34-5 | CL |
| 1,1,2-Trichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 79-00-5 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 75-34-3 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 75-35-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 96-18-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 96-12-8 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 106-93-4 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 95-50-1 | |
| 1,2-Dichloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 107-06-2 | |
| 1,2-Dichloropropane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 78-87-5 | |
| 1,4-Dichlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 106-46-7 | |
| 2-Butanone (MEK) | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 78-93-3 | CL |
| 2-Hexanone | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 591-78-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 108-10-1 | |
| Acetone | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 107-13-1 | CL |
| Benzene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 75-27-4 | |
| Bromoform | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 75-25-2 | |
| Bromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 74-83-9 | |
| Carbon disulfide | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 108-90-7 | |
| Chloroethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 67-66-3 | |
| Chloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 74-87-3 | |
| Dibromochloromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 124-48-1 | |
| Dibromomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 74-95-3 | |
| Ethylbenzene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 100-41-4 | |
| Iodomethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 75-09-2 | |
| Styrene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 100-42-5 | |
| Tetrachloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 127-18-4 | |
| Toluene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 108-88-3 | |
| Trichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 75-69-4 | |
| Vinyl acetate | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 108-05-4 | CL |
| Vinyl chloride | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 1330-20-7 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 156-59-2 | |
| cis-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 10061-01-5 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 156-60-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 10061-02-6 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 5.0 | 1 | | 09/17/18 19:56 | 110-57-6 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## ANALYTICAL RESULTS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

**Sample: STORAGE BLANK** **Lab ID: 7064634016** Collected: 09/12/18 00:00 Received: 09/13/18 10:45 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8260C Volatile Organics** | Analytical Method: EPA 8260C/5030C | | | | | | | |
| ***Surrogates*** | | | | | | | | |
| 1,2-Dichloroethane-d4 (S) | 108 | % | 68-153 | 1 | | 09/17/18 19:56 | 17060-07-0 | |
| 4-Bromofluorobenzene (S) | 106 | % | 79-124 | 1 | | 09/17/18 19:56 | 460-00-4 | |
| Toluene-d8 (S) | 94 | % | 69-124 | 1 | | 09/17/18 19:56 | 2037-26-5 | |
| **TIC MSV Water** | Analytical Method: EPA 8260 | | | | | | | |
| TIC Search | **No TIC's Found** | | | 1 | | 09/20/18 22:28 | | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 83361 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 383592 Matrix: Water
Associated Lab Samples: 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Mercury | ug/L | <0.20 | 0.20 | 09/18/18 15:59 | |

LABORATORY CONTROL SAMPLE: 383593

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | 1 | 1.1 | 112 | 80-120 | |

MATRIX SPIKE SAMPLE: 383594

| Parameter | Units | 7064635001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.20 | 1 | 1.1 | 110 | 75-125 | |

SAMPLE DUPLICATE: 383595

| Parameter | Units | 7064635001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Mercury | ug/L | <0.20 | <0.20 | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84039 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 7064634001, 7064634002, 7064634003, 7064634004, 7064634006, 7064634009

METHOD BLANK: 386580 Matrix: Water
Associated Lab Samples: 7064634001, 7064634002, 7064634003, 7064634004, 7064634006, 7064634009

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Mercury | ug/L | <0.20 | 0.20 | 09/24/18 11:09 | |

LABORATORY CONTROL SAMPLE: 386581

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | 1 | 1.1 | 113 | 80-120 | |

MATRIX SPIKE SAMPLE: 386582

| Parameter | Units | 7064274008 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mercury | ug/L | 0.14J | 1 | 1.1 | 100 | 75-125 | |

MATRIX SPIKE SAMPLE: 386584

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mercury | ug/L | 0.14J | 1 | 1.1 | 93 | 75-125 | |

SAMPLE DUPLICATE: 386583

| Parameter | Units | 7064274008 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Mercury | ug/L | 0.14J | <0.20 | | |

SAMPLE DUPLICATE: 386585

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Mercury | ug/L | 0.14J | <0.20 | | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 83394 Analysis Method: EPA 6010C
QC Batch Method: EPA 3005A Analysis Description: 6010 MET Water
Associated Lab Samples: 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 383689 Matrix: Water
Associated Lab Samples: 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Aluminum | ug/L | <200 | 200 | 09/18/18 21:37 | |
| Antimony | ug/L | <60.0 | 60.0 | 09/18/18 21:37 | |
| Arsenic | ug/L | <10.0 | 10.0 | 09/18/18 21:37 | |
| Barium | ug/L | <200 | 200 | 09/18/18 21:37 | |
| Beryllium | ug/L | <5.0 | 5.0 | 09/18/18 21:37 | |
| Boron | ug/L | <50.0 | 50.0 | 09/18/18 21:37 | |
| Cadmium | ug/L | <2.5 | 2.5 | 09/18/18 21:37 | |
| Calcium | ug/L | <200 | 200 | 09/18/18 21:37 | |
| Chromium | ug/L | <10.0 | 10.0 | 09/18/18 21:37 | |
| Cobalt | ug/L | <50.0 | 50.0 | 09/18/18 21:37 | |
| Copper | ug/L | <25.0 | 25.0 | 09/18/18 21:37 | |
| Iron | ug/L | <20.0 | 20.0 | 09/18/18 21:37 | |
| Lead | ug/L | 1.3J | 5.0 | 09/18/18 21:37 | |
| Magnesium | ug/L | <200 | 200 | 09/18/18 21:37 | |
| Manganese | ug/L | 0.85J | 10.0 | 09/18/18 21:37 | |
| Nickel | ug/L | <40.0 | 40.0 | 09/18/18 21:37 | |
| Potassium | ug/L | <5000 | 5000 | 09/18/18 21:37 | |
| Selenium | ug/L | <10.0 | 10.0 | 09/18/18 21:37 | |
| Silver | ug/L | <10.0 | 10.0 | 09/18/18 21:37 | |
| Sodium | ug/L | 171J | 5000 | 09/18/18 21:37 | |
| Thallium | ug/L | <10.0 | 10.0 | 09/18/18 21:37 | |
| Vanadium | ug/L | <50.0 | 50.0 | 09/18/18 21:37 | |
| Zinc | ug/L | 18.8J | 20.0 | 09/18/18 21:37 | |

LABORATORY CONTROL SAMPLE: 383690

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Aluminum | ug/L | 5000 | 4940 | 99 | 80-120 | |
| Antimony | ug/L | 750 | 746 | 99 | 80-120 | |
| Arsenic | ug/L | 500 | 490 | 98 | 80-120 | |
| Barium | ug/L | 500 | 501 | 100 | 80-120 | |
| Beryllium | ug/L | 50 | 49.8 | 100 | 80-120 | |
| Boron | ug/L | 2500 | 2490 | 100 | 80-120 | |
| Cadmium | ug/L | 50 | 49.2 | 98 | 80-120 | |
| Calcium | ug/L | 25000 | 24300 | 97 | 80-120 | |
| Chromium | ug/L | 250 | 247 | 99 | 80-120 | |
| Cobalt | ug/L | 500 | 500 | 100 | 80-120 | |
| Copper | ug/L | 250 | 249 | 99 | 80-120 | |
| Iron | ug/L | 2000 | 2000 | 100 | 80-120 | |
| Lead | ug/L | 500 | 497 | 99 | 80-120 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

LABORATORY CONTROL SAMPLE: 383690

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Magnesium | ug/L | 25000 | 24000 | 96 | 80-120 | |
| Manganese | ug/L | 250 | 249 | 100 | 80-120 | |
| Nickel | ug/L | 250 | 249 | 100 | 80-120 | |
| Potassium | ug/L | 50000 | 50200 | 100 | 80-120 | |
| Selenium | ug/L | 750 | 741 | 99 | 80-120 | |
| Silver | ug/L | 250 | 241 | 96 | 80-120 | |
| Sodium | ug/L | 50000 | 49000 | 98 | 80-120 | |
| Thallium | ug/L | 750 | 744 | 99 | 80-120 | |
| Vanadium | ug/L | 500 | 491 | 98 | 80-120 | |
| Zinc | ug/L | 1000 | 988 | 99 | 80-120 | |

MATRIX SPIKE SAMPLE: 383692

| Parameter | Units | 7064635001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Aluminum | ug/L | <200 | 5000 | 5060 | 101 | 75-125 | |
| Antimony | ug/L | <60.0 | 750 | 797 | 106 | 75-125 | |
| Arsenic | ug/L | <10.0 | 500 | 513 | 103 | 75-125 | |
| Barium | ug/L | 5.8J | 500 | 512 | 101 | 75-125 | |
| Beryllium | ug/L | <5.0 | 50 | 50.7 | 101 | 75-125 | |
| Boron | ug/L | 275 | 2500 | 2900 | 105 | 75-125 | |
| Cadmium | ug/L | <2.5 | 50 | 48.9 | 98 | 75-125 | |
| Calcium | ug/L | 594000 | 25000 | 636000 | 169 | 75-125 | M1 |
| Chromium | ug/L | 3.8J | 250 | 260 | 103 | 75-125 | |
| Cobalt | ug/L | <50.0 | 500 | 499 | 100 | 75-125 | |
| Copper | ug/L | <25.0 | 250 | 250 | 100 | 75-125 | |
| Iron | ug/L | 100 | 2000 | 2100 | 100 | 75-125 | |
| Lead | ug/L | <5.0 | 500 | 496 | 99 | 75-125 | |
| Magnesium | ug/L | 52700 | 25000 | 79400 | 107 | 75-125 | |
| Manganese | ug/L | 49.9 | 250 | 304 | 101 | 75-125 | |
| Nickel | ug/L | <40.0 | 250 | 249 | 100 | 75-125 | |
| Potassium | ug/L | 2710J | 50000 | 54100 | 103 | 75-125 | |
| Selenium | ug/L | <10.0 | 750 | 789 | 105 | 75-125 | |
| Silver | ug/L | <10.0 | 250 | 261 | 105 | 75-125 | |
| Sodium | ug/L | 33300 | 50000 | 87300 | 108 | 75-125 | |
| Thallium | ug/L | <10.0 | 750 | 737 | 98 | 75-125 | |
| Vanadium | ug/L | <50.0 | 500 | 503 | 101 | 75-125 | |
| Zinc | ug/L | <20.0 | 1000 | 1030 | 103 | 75-125 | |

SAMPLE DUPLICATE: 383691

| Parameter | Units | 7064635001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Aluminum | ug/L | <200 | <200 | | |
| Antimony | ug/L | <60.0 | <60.0 | | |
| Arsenic | ug/L | <10.0 | <10.0 | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

SAMPLE DUPLICATE: 383691

| Parameter | Units | 7064635001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Barium | ug/L | 5.8J | 5.6J | | |
| Beryllium | ug/L | <5.0 | <5.0 | | |
| Boron | ug/L | 275 | 271 | 1 | |
| Cadmium | ug/L | <2.5 | <2.5 | | |
| Calcium | ug/L | 594000 | 592000 | 0 | |
| Chromium | ug/L | 3.8J | 3.5J | | |
| Cobalt | ug/L | <50.0 | <50.0 | | |
| Copper | ug/L | <25.0 | <25.0 | | |
| Iron | ug/L | 100 | 99.9 | 1 | |
| Lead | ug/L | <5.0 | <5.0 | | |
| Magnesium | ug/L | 52700 | 52200 | 1 | |
| Manganese | ug/L | 49.9 | 48.7 | 3 | |
| Nickel | ug/L | <40.0 | <40.0 | | |
| Potassium | ug/L | 2710J | 2710J | | |
| Selenium | ug/L | <10.0 | <10.0 | | |
| Silver | ug/L | <10.0 | <10.0 | | |
| Sodium | ug/L | 33300 | 33000 | 1 | |
| Thallium | ug/L | <10.0 | <10.0 | | |
| Vanadium | ug/L | <50.0 | <50.0 | | |
| Zinc | ug/L | <20.0 | <20.0 | | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84096 Analysis Method: EPA 6010C
QC Batch Method: EPA 3005A Analysis Description: 6010 MET Water
Associated Lab Samples: 7064634001, 7064634002, 7064634003, 7064634004, 7064634005, 7064634006

METHOD BLANK: 386960 Matrix: Water
Associated Lab Samples: 7064634001, 7064634002, 7064634003, 7064634004, 7064634005, 7064634006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Aluminum | ug/L | <200 | 200 | 09/24/18 23:12 | |
| Antimony | ug/L | <60.0 | 60.0 | 09/24/18 23:12 | |
| Arsenic | ug/L | <10.0 | 10.0 | 09/24/18 23:12 | |
| Barium | ug/L | <200 | 200 | 09/24/18 23:12 | |
| Beryllium | ug/L | <5.0 | 5.0 | 09/24/18 23:12 | |
| Boron | ug/L | <50.0 | 50.0 | 09/24/18 23:12 | |
| Cadmium | ug/L | <2.5 | 2.5 | 09/24/18 23:12 | |
| Calcium | ug/L | <200 | 200 | 09/24/18 23:12 | |
| Chromium | ug/L | <10.0 | 10.0 | 09/24/18 23:12 | |
| Cobalt | ug/L | <50.0 | 50.0 | 09/24/18 23:12 | |
| Copper | ug/L | <25.0 | 25.0 | 09/24/18 23:12 | |
| Iron | ug/L | <20.0 | 20.0 | 09/25/18 11:46 | |
| Lead | ug/L | <5.0 | 5.0 | 09/24/18 23:12 | |
| Magnesium | ug/L | <200 | 200 | 09/24/18 23:12 | |
| Manganese | ug/L | <10.0 | 10.0 | 09/25/18 11:46 | |
| Nickel | ug/L | <40.0 | 40.0 | 09/24/18 23:12 | |
| Potassium | ug/L | <5000 | 5000 | 09/24/18 23:12 | |
| Selenium | ug/L | <10.0 | 10.0 | 09/24/18 23:12 | |
| Silver | ug/L | <10.0 | 10.0 | 09/24/18 23:12 | |
| Sodium | ug/L | <5000 | 5000 | 09/24/18 23:12 | |
| Thallium | ug/L | <10.0 | 10.0 | 09/24/18 23:12 | |
| Vanadium | ug/L | <50.0 | 50.0 | 09/24/18 23:12 | |
| Zinc | ug/L | 5.3J | 20.0 | 09/24/18 23:12 | |

LABORATORY CONTROL SAMPLE: 386961

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Aluminum | ug/L | 5000 | 4160 | 83 | 80-120 | |
| Antimony | ug/L | 750 | 672 | 90 | 80-120 | |
| Arsenic | ug/L | 500 | 444 | 89 | 80-120 | |
| Barium | ug/L | 500 | 446 | 89 | 80-120 | |
| Beryllium | ug/L | 50 | 44.2 | 88 | 80-120 | |
| Boron | ug/L | 2500 | 2260 | 91 | 80-120 | |
| Cadmium | ug/L | 50 | 45.1 | 90 | 80-120 | |
| Calcium | ug/L | 25000 | 21700 | 87 | 80-120 | |
| Chromium | ug/L | 250 | 218 | 87 | 80-120 | |
| Cobalt | ug/L | 500 | 452 | 90 | 80-120 | |
| Copper | ug/L | 250 | 224 | 89 | 80-120 | |
| Iron | ug/L | 2000 | 1830 | 92 | 80-120 | |
| Lead | ug/L | 500 | 456 | 91 | 80-120 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

LABORATORY CONTROL SAMPLE: 386961

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Magnesium | ug/L | 25000 | 21600 | 86 | 80-120 | |
| Manganese | ug/L | 250 | 228 | 91 | 80-120 | |
| Nickel | ug/L | 250 | 225 | 90 | 80-120 | |
| Potassium | ug/L | 50000 | 41400 | 83 | 80-120 | |
| Selenium | ug/L | 750 | 669 | 89 | 80-120 | |
| Silver | ug/L | 250 | 223 | 89 | 80-120 | |
| Sodium | ug/L | 50000 | 44100 | 88 | 80-120 | |
| Thallium | ug/L | 750 | 697 | 93 | 80-120 | |
| Vanadium | ug/L | 500 | 438 | 88 | 80-120 | |
| Zinc | ug/L | 1000 | 894 | 89 | 80-120 | |

MATRIX SPIKE SAMPLE: 386963

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Aluminum | ug/L | 41.6J | 5000 | 4780 | 95 | 75-125 | |
| Antimony | ug/L | <60.0 | 750 | 722 | 96 | 75-125 | |
| Arsenic | ug/L | 22.8 | 500 | 492 | 94 | 75-125 | |
| Barium | ug/L | 126J | 500 | 606 | 96 | 75-125 | |
| Beryllium | ug/L | <5.0 | 50 | 48.9 | 98 | 75-125 | |
| Boron | ug/L | 56.5 | 2500 | 2480 | 97 | 75-125 | |
| Cadmium | ug/L | <2.5 | 50 | 47.6 | 95 | 75-125 | |
| Calcium | ug/L | 74400 | 25000 | 96600 | 89 | 75-125 | |
| Chromium | ug/L | <10.0 | 250 | 239 | 95 | 75-125 | |
| Cobalt | ug/L | 11.6J | 500 | 498 | 97 | 75-125 | |
| Copper | ug/L | <25.0 | 250 | 243 | 97 | 75-125 | |
| Iron | ug/L | 7150 | 2000 | 8620 | 74 | 75-125 | M1 |
| Lead | ug/L | 1.3J | 500 | 484 | 96 | 75-125 | |
| Magnesium | ug/L | 10700 | 25000 | 34300 | 94 | 75-125 | |
| Manganese | ug/L | 8250 | 250 | 8140 | -44 | 75-125 | M1 |
| Nickel | ug/L | 4.8J | 250 | 244 | 96 | 75-125 | |
| Potassium | ug/L | 3050J | 50000 | 47600 | 89 | 75-125 | |
| Selenium | ug/L | <10.0 | 750 | 710 | 95 | 75-125 | |
| Silver | ug/L | <10.0 | 250 | 250 | 100 | 75-125 | |
| Sodium | ug/L | 5100 | 50000 | 52700 | 95 | 75-125 | |
| Thallium | ug/L | 10.3 | 750 | 740 | 97 | 75-125 | |
| Vanadium | ug/L | 1.4J | 500 | 483 | 96 | 75-125 | |
| Zinc | ug/L | 9.9J | 1000 | 968 | 96 | 75-125 | |

SAMPLE DUPLICATE: 386962

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Aluminum | ug/L | 41.6J | 21.1J | | |
| Antimony | ug/L | <60.0 | <60.0 | | |
| Arsenic | ug/L | 22.8 | 19.6 | 15 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

SAMPLE DUPLICATE: 386962

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Barium | ug/L | 126J | 119J | | |
| Beryllium | ug/L | <5.0 | <5.0 | | |
| Boron | ug/L | 56.5 | 54.0 | 4 | |
| Cadmium | ug/L | <2.5 | <2.5 | | |
| Calcium | ug/L | 74400 | 68400 | 8 | |
| Chromium | ug/L | <10.0 | <10.0 | | |
| Cobalt | ug/L | 11.6J | 10.8J | | |
| Copper | ug/L | <25.0 | <25.0 | | |
| Iron | ug/L | 7150 | 6680 | 7 | |
| Lead | ug/L | 1.3J | <5.0 | | |
| Magnesium | ug/L | 10700 | 9860 | 8 | |
| Manganese | ug/L | 8250 | 7690 | 7 | |
| Nickel | ug/L | 4.8J | 4.8J | | |
| Potassium | ug/L | 3050J | 2850J | | |
| Selenium | ug/L | <10.0 | <10.0 | | |
| Silver | ug/L | <10.0 | <10.0 | | |
| Sodium | ug/L | 5100 | 4600J | | |
| Thallium | ug/L | 10.3 | 9.8J | | |
| Vanadium | ug/L | 1.4J | 0.91J | | |
| Zinc | ug/L | 9.9J | 9.3J | | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 83278 Analysis Method: EPA 8260C/5030C
QC Batch Method: EPA 8260C/5030C Analysis Description: 8260 MSV
Associated Lab Samples: 7064634001, 7064634002, 7064634003, 7064634004, 7064634005, 7064634006, 7064634007, 7064634008, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014, 7064634015, 7064634016

METHOD BLANK: 383258 Matrix: Water
Associated Lab Samples: 7064634001, 7064634002, 7064634003, 7064634004, 7064634005, 7064634006, 7064634007, 7064634008, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014, 7064634015, 7064634016

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,1,1-Trichloroethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,1,2,2-Tetrachloroethane | ug/L | ND | 5.0 | 09/17/18 17:29 | CL |
| 1,1,2-Trichloroethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,1-Dichloroethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,1-Dichloroethene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,2,3-Trichloropropane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,2-Dibromo-3-chloropropane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,2-Dibromoethane (EDB) | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,2-Dichlorobenzene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,2-Dichloroethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,2-Dichloropropane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,4-Dichlorobenzene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 2-Butanone (MEK) | ug/L | ND | 5.0 | 09/17/18 17:29 | CL |
| 2-Hexanone | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Acetone | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Acrylonitrile | ug/L | ND | 5.0 | 09/17/18 17:29 | CL |
| Benzene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Bromochloromethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Bromodichloromethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Bromoform | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Bromomethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Carbon disulfide | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Carbon tetrachloride | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Chlorobenzene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Chloroethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Chloroform | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Chloromethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| cis-1,2-Dichloroethene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| cis-1,3-Dichloropropene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Dibromochloromethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Dibromomethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Ethylbenzene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Iodomethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Methylene Chloride | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Styrene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Tetrachloroethene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Toluene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| trans-1,2-Dichloroethene | ug/L | ND | 5.0 | 09/17/18 17:29 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

METHOD BLANK: 383258 Matrix: Water

Associated Lab Samples: 7064634001, 7064634002, 7064634003, 7064634004, 7064634005, 7064634006, 7064634007, 7064634008, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014, 7064634015, 7064634016

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| trans-1,4-Dichloro-2-butene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Trichloroethene | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Trichlorofluoromethane | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Vinyl acetate | ug/L | ND | 5.0 | 09/17/18 17:29 | CL |
| Vinyl chloride | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| Xylene (Total) | ug/L | ND | 5.0 | 09/17/18 17:29 | |
| 1,2-Dichloroethane-d4 (S) | % | 114 | 68-153 | 09/17/18 17:29 | |
| 4-Bromofluorobenzene (S) | % | 108 | 79-124 | 09/17/18 17:29 | |
| Toluene-d8 (S) | % | 91 | 69-124 | 09/17/18 17:29 | |

LABORATORY CONTROL SAMPLE: 383259

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | 50 | 47.5 | 95 | 74-113 | |
| 1,1,1-Trichloroethane | ug/L | 50 | 51.4 | 103 | 65-118 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 44.2 | 88 | 74-121 | CL |
| 1,1,2-Trichloroethane | ug/L | 50 | 47.4 | 95 | 80-117 | |
| 1,1-Dichloroethane | ug/L | 50 | 42.8 | 86 | 83-151 | |
| 1,1-Dichloroethene | ug/L | 50 | 43.2 | 86 | 45-146 | |
| 1,2,3-Trichloropropane | ug/L | 50 | 48.0 | 96 | 71-123 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 52.6 | 105 | 74-119 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 51.4 | 103 | 83-115 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 49.7 | 99 | 74-113 | |
| 1,2-Dichloroethane | ug/L | 50 | 47.5 | 95 | 74-129 | |
| 1,2-Dichloropropane | ug/L | 50 | 44.4 | 89 | 75-117 | |
| 1,4-Dichlorobenzene | ug/L | 50 | 49.3 | 99 | 71-113 | |
| 2-Butanone (MEK) | ug/L | 50 | 41.3 | 83 | 44-162 | CL |
| 2-Hexanone | ug/L | 50 | 44.3 | 89 | 32-183 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | 50 | 51.4 | 103 | 69-132 | |
| Acetone | ug/L | 50 | 42.9 | 86 | 23-188 | CH,IH |
| Acrylonitrile | ug/L | 50 | 43.4 | 87 | 59-148 | CL |
| Benzene | ug/L | 50 | 47.5 | 95 | 73-119 | |
| Bromochloromethane | ug/L | 50 | 45.5 | 91 | 81-116 | |
| Bromodichloromethane | ug/L | 50 | 50.7 | 101 | 78-117 | |
| Bromoform | ug/L | 50 | 50.3 | 101 | 65-122 | |
| Bromomethane | ug/L | 50 | 42.9 | 86 | 52-147 | |
| Carbon disulfide | ug/L | 50 | 41.9 | 84 | 41-144 | |
| Carbon tetrachloride | ug/L | 50 | 49.2 | 98 | 59-120 | |
| Chlorobenzene | ug/L | 50 | 45.0 | 90 | 75-113 | |
| Chloroethane | ug/L | 50 | 41.5 | 83 | 49-151 | |
| Chloroform | ug/L | 50 | 45.2 | 90 | 72-122 | |
| Chloromethane | ug/L | 50 | 32.1 | 64 | 46-144 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

LABORATORY CONTROL SAMPLE: 383259

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | ug/L | 50 | 43.5 | 87 | 72-121 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 49.7 | 99 | 78-116 | |
| Dibromochloromethane | ug/L | 50 | 48.3 | 97 | 70-120 | |
| Dibromomethane | ug/L | 50 | 47.1 | 94 | 75-125 | |
| Ethylbenzene | ug/L | 50 | 45.2 | 90 | 70-113 | |
| Iodomethane | ug/L | 50 | 48.6 | 97 | 61-144 | CH |
| Methylene Chloride | ug/L | 50 | 41.5 | 83 | 61-142 | |
| Styrene | ug/L | 50 | 50.4 | 101 | 72-118 | |
| Tetrachloroethene | ug/L | 50 | 50.2 | 100 | 60-128 | |
| Toluene | ug/L | 50 | 47.0 | 94 | 72-119 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 41.6 | 83 | 56-142 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 52.4 | 105 | 79-116 | |
| trans-1,4-Dichloro-2-butene | ug/L | 50 | 50.1 | 100 | 71-121 | |
| Trichloroethene | ug/L | 50 | 48.9 | 98 | 69-117 | |
| Trichlorofluoromethane | ug/L | 50 | 46.5 | 93 | 27-173 | CH |
| Vinyl acetate | ug/L | 50 | 41.3 | 83 | 20-158 | CL |
| Vinyl chloride | ug/L | 50 | 37.5 | 75 | 43-143 | |
| Xylene (Total) | ug/L | 150 | 144 | 96 | 71-109 | |
| 1,2-Dichloroethane-d4 (S) | % | | | 112 | 68-153 | |
| 4-Bromofluorobenzene (S) | % | | | 111 | 79-124 | |
| Toluene-d8 (S) | % | | | 91 | 69-124 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 384345 384346

| Parameter | Units | 7064634004 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | ND | 50 | 50 | 46.1 | 46.0 | 92 | 92 | 74-113 | 0 | |
| 1,1,1-Trichloroethane | ug/L | ND | 50 | 50 | 55.1 | 54.0 | 110 | 108 | 65-118 | 2 | |
| 1,1,2,2-Tetrachloroethane | ug/L | ND | 50 | 50 | 32.6 | 36.8 | 65 | 74 | 74-121 | 12 | CL,M1 |
| 1,1,2-Trichloroethane | ug/L | ND | 50 | 50 | 33.1 | 39.1 | 66 | 78 | 80-117 | 17 | M1 |
| 1,1-Dichloroethane | ug/L | ND | 50 | 50 | 38.6 | 37.9 | 77 | 76 | 83-151 | 2 | M1 |
| 1,1-Dichloroethene | ug/L | ND | 50 | 50 | 40.0 | 40.7 | 80 | 81 | 45-146 | 2 | |
| 1,2,3-Trichloropropane | ug/L | ND | 50 | 50 | 39.9 | 41.8 | 80 | 84 | 71-123 | 5 | |
| 1,2-Dibromo-3-chloropropane | ug/L | ND | 50 | 50 | 42.7 | 43.6 | 85 | 87 | 74-119 | 2 | |
| 1,2-Dibromoethane (EDB) | ug/L | ND | 50 | 50 | 39.4 | 45.2 | 79 | 90 | 83-115 | 14 | M1 |
| 1,2-Dichlorobenzene | ug/L | ND | 50 | 50 | 45.1 | 46.0 | 90 | 92 | 74-113 | 2 | |
| 1,2-Dichloroethane | ug/L | ND | 50 | 50 | 43.2 | 43.5 | 86 | 87 | 74-129 | 1 | |
| 1,2-Dichloropropane | ug/L | ND | 50 | 50 | 31.0 | 40.6 | 62 | 81 | 75-117 | 27 | M1,R1 |
| 1,4-Dichlorobenzene | ug/L | ND | 50 | 50 | 46.5 | 47.7 | 89 | 91 | 71-113 | 2 | |
| 2-Butanone (MEK) | ug/L | ND | 50 | 50 | 28.2 | 30.6 | 56 | 61 | 44-162 | 8 | CL |
| 2-Hexanone | ug/L | ND | 50 | 50 | 32.7 | 35.7 | 65 | 71 | 32-183 | 9 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | ND | 50 | 50 | 31.8 | 42.5 | 64 | 85 | 69-132 | 29 | M1,R1 |
| Acetone | ug/L | ND | 50 | 50 | 33.7 | 34.4 | 67 | 69 | 23-188 | 2 | CH,IH |
| Acrylonitrile | ug/L | ND | 50 | 50 | 33.0 | 33.5 | 66 | 67 | 59-148 | 2 | CL |
| Benzene | ug/L | ND | 50 | 50 | 46.6 | 46.4 | 89 | 88 | 73-119 | 1 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 384345 384346

| Parameter | Units | 7064634004 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromochloromethane | ug/L | ND | 50 | 50 | 39.5 | 42.1 | 79 | 84 | 81-116 | 6 | M1 |
| Bromodichloromethane | ug/L | ND | 50 | 50 | 41.2 | 47.8 | 82 | 96 | 78-117 | 15 | |
| Bromoform | ug/L | ND | 50 | 50 | 48.7 | 49.9 | 97 | 100 | 65-122 | 3 | |
| Bromomethane | ug/L | ND | 50 | 50 | 37.7 | 39.4 | 75 | 79 | 52-147 | 5 | |
| Carbon disulfide | ug/L | ND | 50 | 50 | 38.5 | 38.1 | 77 | 76 | 41-144 | 1 | |
| Carbon tetrachloride | ug/L | ND | 50 | 50 | 53.0 | 52.8 | 106 | 106 | 59-120 | 0 | |
| Chlorobenzene | ug/L | 6.6 | 50 | 50 | 49.1 | 49.9 | 85 | 87 | 75-113 | 2 | |
| Chloroethane | ug/L | ND | 50 | 50 | 35.9 | 35.8 | 72 | 72 | 49-151 | 0 | |
| Chloroform | ug/L | ND | 50 | 50 | 41.5 | 41.7 | 83 | 83 | 72-122 | 0 | |
| Chloromethane | ug/L | ND | 50 | 50 | 36.1 | 35.7 | 72 | 71 | 46-144 | 1 | |
| cis-1,2-Dichloroethene | ug/L | 6.7 | 50 | 50 | 45.9 | 46.1 | 78 | 79 | 72-121 | 0 | |
| cis-1,3-Dichloropropene | ug/L | ND | 50 | 50 | 36.9 | 45.6 | 74 | 91 | 78-116 | 21 | M1,R1 |
| Dibromochloromethane | ug/L | ND | 50 | 50 | 46.5 | 46.1 | 93 | 92 | 70-120 | 1 | |
| Dibromomethane | ug/L | ND | 50 | 50 | 37.5 | 44.5 | 75 | 89 | 75-125 | 17 | |
| Ethylbenzene | ug/L | ND | 50 | 50 | 41.9 | 43.9 | 84 | 88 | 70-113 | 5 | |
| Iodomethane | ug/L | ND | 50 | 50 | 47.2 | 47.4 | 94 | 95 | 61-144 | 0 | CH |
| Methylene Chloride | ug/L | ND | 50 | 50 | 36.7 | 36.0 | 73 | 72 | 61-142 | 2 | |
| Styrene | ug/L | ND | 50 | 50 | 44.7 | 47.8 | 89 | 96 | 72-118 | 7 | |
| Tetrachloroethene | ug/L | ND | 50 | 50 | 52.9 | 51.6 | 106 | 103 | 60-128 | 3 | |
| Toluene | ug/L | ND | 50 | 50 | 37.7 | 44.5 | 75 | 89 | 72-119 | 17 | |
| trans-1,2-Dichloroethene | ug/L | ND | 50 | 50 | 38.9 | 39.6 | 78 | 79 | 56-142 | 2 | |
| trans-1,3-Dichloropropene | ug/L | ND | 50 | 50 | 39.5 | 47.3 | 79 | 95 | 79-116 | 18 | |
| trans-1,4-Dichloro-2-butene | ug/L | ND | 50 | 50 | 41.6 | 44.4 | 83 | 89 | 71-121 | 7 | |
| Trichloroethene | ug/L | ND | 50 | 50 | 50.3 | 50.5 | 96 | 96 | 69-117 | 0 | |
| Trichlorofluoromethane | ug/L | ND | 50 | 50 | 48.0 | 46.9 | 96 | 94 | 27-173 | 2 | CH |
| Vinyl acetate | ug/L | ND | 50 | 50 | 27.5 | 28.1 | 55 | 56 | 20-158 | 2 | CL |
| Vinyl chloride | ug/L | ND | 50 | 50 | 41.1 | 39.4 | 74 | 71 | 43-143 | 4 | |
| Xylene (Total) | ug/L | ND | 150 | 150 | 134 | 138 | 89 | 92 | 71-109 | 3 | |
| 1,2-Dichloroethane-d4 (S) | % | | | | | | 115 | 115 | 68-153 | | |
| 4-Bromofluorobenzene (S) | % | | | | | | 110 | 114 | 79-124 | | |
| Toluene-d8 (S) | % | | | | | | 88 | 90 | 69-124 | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 82877 Analysis Method: SM22 2120B
QC Batch Method: SM22 2120B Analysis Description: 2120B Color
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 381245 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Apparent Color | units | <5.0 | 5.0 | 09/13/18 15:32 | |

LABORATORY CONTROL SAMPLE: 381246

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Apparent Color | units | 40 | 40.0 | 100 | 90-110 | |

SAMPLE DUPLICATE: 381247

| Parameter | Units | 7064634014 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Apparent Color | units | 5.0 | 5.0 | 0 | |
| pH | Std. Units | 8.0 | 8.0 | 0 | |

SAMPLE DUPLICATE: 381248

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Apparent Color | units | 15.0 | 15.0 | 0 | |
| pH | Std. Units | 7.0 | 7.0 | 0 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84380 Analysis Method: SM22 2320B
QC Batch Method: SM22 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634009, 7064634010

METHOD BLANK: 387938 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634009, 7064634010

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | <1.0 | 1.0 | 09/25/18 02:36 | |

LABORATORY CONTROL SAMPLE: 387939

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | 25 | 26.5 | 106 | 80-120 | |

MATRIX SPIKE SAMPLE: 387941

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | 278 | 50 | 331 | 106 | 75-125 | |

SAMPLE DUPLICATE: 387940

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | 278 | 286 | 3 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84478 Analysis Method: SM22 2320B
QC Batch Method: SM22 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 388652 Matrix: Water
Associated Lab Samples: 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | <1.0 | 1.0 | 09/26/18 07:49 | |

LABORATORY CONTROL SAMPLE: 388653

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | 25 | 27.2 | 109 | 80-120 | |

MATRIX SPIKE SAMPLE: 388655

| Parameter | Units | 7064634013 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | 103 | 50 | 150 | 94 | 75-125 | |

SAMPLE DUPLICATE: 388654

| Parameter | Units | 7064634013 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | mg/L | 103 | 111 | 7 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84305 Analysis Method: SM22 2340C
QC Batch Method: SM22 2340C Analysis Description: 2340C Hardness, Total
Associated Lab Samples: 7064634001, 7064634002, 7064634003

METHOD BLANK: 387781 Matrix: Water
Associated Lab Samples: 7064634001, 7064634002, 7064634003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | <5.0 | 5.0 | 09/25/18 12:26 | |

LABORATORY CONTROL SAMPLE: 387782

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 100 | 103 | 103 | 90-110 | |

MATRIX SPIKE SAMPLE: 387783

| Parameter | Units | 7064274008 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 1140 | 2000 | 3000 | 93 | 75-125 | |

MATRIX SPIKE SAMPLE: 387785

| Parameter | Units | 7064635001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 1020 | 2000 | 3040 | 101 | 75-125 | |

SAMPLE DUPLICATE: 387784

| Parameter | Units | 7064274008 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 1140 | 1120 | 2 | |

SAMPLE DUPLICATE: 387786

| Parameter | Units | 7064635001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 1020 | 1040 | 2 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84479 Analysis Method: SM22 2340C
QC Batch Method: SM22 2340C Analysis Description: 2340C Hardness, Total
Associated Lab Samples: 7064634004, 7064634005, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 388656 Matrix: Water
Associated Lab Samples: 7064634004, 7064634005, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | <5.0 | 5.0 | 09/26/18 12:07 | |

LABORATORY CONTROL SAMPLE: 388657

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 100 | 105 | 105 | 90-110 | |

MATRIX SPIKE SAMPLE: 388658

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 173 | 667 | 833 | 99 | 75-125 | |

SAMPLE DUPLICATE: 388659

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 173 | 180 | 4 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 83380 Analysis Method: SM22 2540C
QC Batch Method: SM22 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634007, 7064634008, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 383659 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634007, 7064634008, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Total Dissolved Solids | mg/L | <10.0 | 10.0 | 09/18/18 16:21 | |

LABORATORY CONTROL SAMPLE: 383660

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Total Dissolved Solids | mg/L | 500 | 520 | 104 | 85-115 | |

MATRIX SPIKE SAMPLE: 383662

| Parameter | Units | 7064635001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | mg/L | 2270 | 600 | 3010 | 123 | 75-125 | |

MATRIX SPIKE SAMPLE: 383664

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | mg/L | 279 | 300 | 588 | 103 | 75-125 | |

SAMPLE DUPLICATE: 383661

| Parameter | Units | 7064635001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Total Dissolved Solids | mg/L | 2270 | 2360 | 4 | |

SAMPLE DUPLICATE: 383663

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Total Dissolved Solids | mg/L | 279 | 267 | 4 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 82879 Analysis Method: SM22 3500-Cr B
QC Batch Method: SM22 3500-Cr B Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 381257 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Chromium, Hexavalent | mg/L | <0.020 | 0.020 | 09/13/18 16:36 | |

LABORATORY CONTROL SAMPLE: 381258

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Chromium, Hexavalent | mg/L | .2 | 0.20 | 102 | 85-115 | |

MATRIX SPIKE SAMPLE: 381259

| Parameter | Units | 7064634014 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Chromium, Hexavalent | mg/L | <0.020 | .2 | 0.20 | 102 | 75-125 | H3 |

MATRIX SPIKE SAMPLE: 381866

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Chromium, Hexavalent | mg/L | <0.020 | .2 | 0.21 | 103 | 75-125 | |

SAMPLE DUPLICATE: 381260

| Parameter | Units | 7064634014 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Chromium, Hexavalent | mg/L | <0.020 | <0.020 | | H3 |

SAMPLE DUPLICATE: 381261

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Chromium, Hexavalent | mg/L | <0.020 | <0.020 | | H1 |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 83767 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634005, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 385548 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634005, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | <10.0 | 10.0 | 09/20/18 12:32 | |

LABORATORY CONTROL SAMPLE: 385549

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 500 | 526 | 105 | 90-110 | |

MATRIX SPIKE SAMPLE: 385550

| Parameter | Units | 7064274008 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 19.6 | 1000 | 979 | 96 | 90-110 | |

MATRIX SPIKE SAMPLE: 385552

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 46.1 | 1000 | 1020 | 97 | 90-110 | |

SAMPLE DUPLICATE: 385551

| Parameter | Units | 7064274008 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 19.6 | 23.6 | 19 | |

SAMPLE DUPLICATE: 385553

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 46.1 | 52.2 | 12 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 82902 Analysis Method: SM22 5210B
QC Batch Method: SM22 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 7064634002, 7064634003, 7064634007, 7064634008, 7064634009, 7064634014

METHOD BLANK: 381408 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003, 7064634007, 7064634008, 7064634009, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| BOD, 5 day | mg/L | <2.0 | 2.0 | 09/18/18 11:45 | |

LABORATORY CONTROL SAMPLE: 381409

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| BOD, 5 day | mg/L | 198 | 180 | 91 | 84.5-115.4 | |

SAMPLE DUPLICATE: 381410

| Parameter | Units | 7064274008 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| BOD, 5 day | mg/L | <2.0 | <2.0 | | H3 |

SAMPLE DUPLICATE: 381411

| Parameter | Units | 7064635001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| BOD, 5 day | mg/L | <2.0 | <2.0 | | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 82907 Analysis Method: SM22 5210B
QC Batch Method: SM22 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 7064634004, 7064634006, 7064634010, 7064634011, 7064634012, 7064634013

METHOD BLANK: 381432 Matrix: Water
Associated Lab Samples: 7064634004, 7064634006, 7064634010, 7064634011, 7064634012, 7064634013

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| BOD, 5 day | mg/L | <2.0 | 2.0 | 09/18/18 13:15 | |

LABORATORY CONTROL SAMPLE: 381433

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| BOD, 5 day | mg/L | 198 | 185 | 94 | 84.5-115.4 | |

SAMPLE DUPLICATE: 381434

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| BOD, 5 day | mg/L | <2.0 | <2.0 | | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84647 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634007, 7064634008, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 389288 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634007, 7064634008, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Bromide | mg/L | <0.50 | 0.50 | 09/26/18 18:30 | |
| Chloride | mg/L | <2.0 | 2.0 | 09/26/18 18:30 | |
| Sulfate | mg/L | 0.60J | 5.0 | 09/26/18 18:30 | |

LABORATORY CONTROL SAMPLE: 389289

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Bromide | mg/L | 1 | 0.92 | 92 | 90-110 | |
| Chloride | mg/L | 10 | 9.2 | 92 | 90-110 | |
| Sulfate | mg/L | 10 | 10.8 | 108 | 90-110 | |

MATRIX SPIKE SAMPLE: 389290

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Bromide | mg/L | <0.50 | 1 | 1.1 | 108 | 80-120 | |
| Chloride | mg/L | 4.9 | 10 | 14.1 | 92 | 80-120 | |
| Sulfate | mg/L | 5.7 | 10 | 16.2 | 105 | 80-120 | |

SAMPLE DUPLICATE: 389291

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Bromide | mg/L | <0.50 | 0.17J | | |
| Chloride | mg/L | 4.9 | 5.0 | 2 | |
| Sulfate | mg/L | 5.7 | 6.4 | 11 | |

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84466 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634005, 7064634006, 7064634009

METHOD BLANK: 388611 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634005, 7064634006, 7064634009

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | <0.10 | 0.10 | 09/26/18 14:01 | |

LABORATORY CONTROL SAMPLE: 388612

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | 4 | 3.9 | 97 | 90-110 | |

MATRIX SPIKE SAMPLE: 388613

| Parameter | Units | 7064274008 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | <0.10 | 4 | 3.6 | 88 | 90-110 | |

MATRIX SPIKE SAMPLE: 388615

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | 2.4 | 4 | 6.9 | 113 | 90-110 | |

SAMPLE DUPLICATE: 388614

| Parameter | Units | 7064274008 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | <0.10 | 0.23 | | |

SAMPLE DUPLICATE: 388616

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | 2.4 | 2.3 | 6 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
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(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84467 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 388617 Matrix: Water
Associated Lab Samples: 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | <0.10 | 0.10 | 09/26/18 14:26 | |

LABORATORY CONTROL SAMPLE: 388618

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | 4 | 3.8 | 94 | 90-110 | |

MATRIX SPIKE SAMPLE: 388619

| Parameter | Units | 7065217002 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | 1.2 | 4 | 3.7 | 62 | 90-110 | M1 |

MATRIX SPIKE SAMPLE: 388621

| Parameter | Units | 7065438002 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | 4.1 | 4 | 8.5 | 108 | 90-110 | |

SAMPLE DUPLICATE: 388620

| Parameter | Units | 7065217002 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | 1.2 | 1.1 | 2 | |

SAMPLE DUPLICATE: 388622

| Parameter | Units | 7065438002 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | 4.1 | 4.0 | 3 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 82947 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrite, Unpres.
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634007, 7064634008, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 381677 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634006, 7064634007, 7064634008, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrite as N | mg/L | <0.050 | 0.050 | 09/13/18 20:50 | |

LABORATORY CONTROL SAMPLE: 381678

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrite as N | mg/L | 1 | 1.0 | 101 | 90-110 | |

MATRIX SPIKE SAMPLE: 381679

| Parameter | Units | 7064635001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrite as N | mg/L | <0.050 | .5 | 0.54 | 108 | 90-110 | H1 |

MATRIX SPIKE SAMPLE: 381681

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrite as N | mg/L | <0.050 | .5 | 0.52 | 104 | 90-110 | |

SAMPLE DUPLICATE: 381680

| Parameter | Units | 7064635001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrite as N | mg/L | <0.050 | <0.050 | | H1 |

SAMPLE DUPLICATE: 381682

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrite as N | mg/L | <0.050 | <0.050 | | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 82960 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634005, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 381721 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003, 7064634004, 7064634005, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrate-Nitrite (as N) | mg/L | <0.050 | 0.050 | 09/13/18 23:08 | |

LABORATORY CONTROL SAMPLE: 381722

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrate-Nitrite (as N) | mg/L | 1 | 0.98 | 98 | 90-110 | |

MATRIX SPIKE SAMPLE: 381723

| Parameter | Units | 7064274008 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrate-Nitrite (as N) | mg/L | <0.050 | .5 | 0.43 | 85 | 90-110 | M1 |

MATRIX SPIKE SAMPLE: 381725

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrate-Nitrite (as N) | mg/L | <0.050 | .5 | 0.48 | 88 | 90-110 | M1 |

SAMPLE DUPLICATE: 381724

| Parameter | Units | 7064274008 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrate-Nitrite (as N) | mg/L | <0.050 | <0.050 | | |

SAMPLE DUPLICATE: 381726

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrate-Nitrite (as N) | mg/L | <0.050 | <0.050 | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84146 Analysis Method: EPA 420.1
QC Batch Method: EPA 420.1 Analysis Description: 420.1 Phenolics Macro
Associated Lab Samples: 7064634002, 7064634003

METHOD BLANK: 387159 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | <5.0 | 5.0 | 09/24/18 15:15 | |

LABORATORY CONTROL SAMPLE: 387160

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | 30 | 31.0 | 103 | 90-110 | |

MATRIX SPIKE SAMPLE: 387161

| Parameter | Units | 7064274008 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | <5.0 | 20 | 22.3 | 111 | 75-125 | |

MATRIX SPIKE SAMPLE: 387163

| Parameter | Units | 7064634003 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | <5.0 | 20 | 19.7 | 95 | 75-125 | |

SAMPLE DUPLICATE: 387162

| Parameter | Units | 7064274008 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | <5.0 | <5.0 | | |

SAMPLE DUPLICATE: 387164

| Parameter | Units | 7064634003 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | <5.0 | <5.0 | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84508 Analysis Method: EPA 420.1
QC Batch Method: EPA 420.1 Analysis Description: 420.1 Phenolics Macro
Associated Lab Samples: 7064634004, 7064634005, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 388718 Matrix: Water
Associated Lab Samples: 7064634004, 7064634005, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | <5.0 | 5.0 | 09/26/18 15:32 | |

LABORATORY CONTROL SAMPLE: 388719

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | 30 | 27.4 | 91 | 90-110 | |

MATRIX SPIKE SAMPLE: 388720

| Parameter | Units | 7064635001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | <5.0 | 20 | 24.3 | 122 | 75-125 | |

MATRIX SPIKE SAMPLE: 388722

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | 27.4 | 20 | 44.9 | 87 | 75-125 | |

SAMPLE DUPLICATE: 388721

| Parameter | Units | 7064635001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | <5.0 | <5.0 | | |

SAMPLE DUPLICATE: 388723

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Phenolics, Total Recoverable | ug/L | 27.4 | 24.9 | 10 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84318
QC Batch Method: SM22 4500 NH3 H
Analysis Method: SM22 4500 NH3 H
Analysis Description: 4500 Ammonia
Associated Lab Samples: 7064634002

METHOD BLANK: 387824 Matrix: Water
Associated Lab Samples: 7064634002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 0.032J | 0.10 | 09/25/18 11:26 | |

LABORATORY CONTROL SAMPLE: 387825

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 1 | 0.99 | 99 | 90-110 | |

MATRIX SPIKE SAMPLE: 387826

| Parameter | Units | 7064274008 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 0.079J | 1 | 1.1 | 101 | 75-125 | |

SAMPLE DUPLICATE: 387827

| Parameter | Units | 7064274008 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 0.079J | 0.082J | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84319 Analysis Method: SM22 4500 NH3 H
QC Batch Method: SM22 4500 NH3 H Analysis Description: 4500 Ammonia
Associated Lab Samples: 7064634003, 7064634004, 7064634005, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 387828 Matrix: Water
Associated Lab Samples: 7064634003, 7064634004, 7064634005, 7064634006, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 0.025J | 0.10 | 09/25/18 12:02 | |

LABORATORY CONTROL SAMPLE: 387829

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 1 | 0.99 | 99 | 90-110 | |

MATRIX SPIKE SAMPLE: 387830

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 0.99 | 1 | 1.9 | 88 | 75-125 | |

SAMPLE DUPLICATE: 387831

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 0.99 | 1.0 | 1 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 83564 Analysis Method: EPA 9014 Total Cyanide
QC Batch Method: EPA 9010C Analysis Description: 9014 Cyanide, Total
Associated Lab Samples: 7064634002, 7064634003

METHOD BLANK: 384640 Matrix: Water
Associated Lab Samples: 7064634002, 7064634003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Cyanide | ug/L | <10.0 | 10.0 | 09/19/18 14:32 | |

LABORATORY CONTROL SAMPLE: 384641

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Cyanide | ug/L | 75 | 65.5 | 87 | 85-115 | |

MATRIX SPIKE SAMPLE: 384642

| Parameter | Units | 7064274008 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | <10.0 | 100 | 90.8 | 89 | 75-125 | |

SAMPLE DUPLICATE: 384643

| Parameter | Units | 7064274008 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Cyanide | ug/L | <10.0 | <10.0 | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 84114 Analysis Method: EPA 9014 Total Cyanide
QC Batch Method: EPA 9010C Analysis Description: 9014 Cyanide, Total
Associated Lab Samples: 7064634004, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 387072 Matrix: Water
Associated Lab Samples: 7064634004, 7064634009, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Cyanide | ug/L | <10.0 | 10.0 | 09/23/18 09:29 | |

LABORATORY CONTROL SAMPLE: 387073

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Cyanide | ug/L | 75 | 65.7 | 88 | 85-115 | |

MATRIX SPIKE SAMPLE: 387074

| Parameter | Units | 7064635001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | <10.0 | 100 | 82.2 | 81 | 75-125 | |

MATRIX SPIKE SAMPLE: 387076

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | <10.0 | 100 | 90.1 | 89 | 75-125 | |

SAMPLE DUPLICATE: 387075

| Parameter | Units | 7064635001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Cyanide | ug/L | <10.0 | <10.0 | | |

SAMPLE DUPLICATE: 387077

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Cyanide | ug/L | <10.0 | <10.0 | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 83610 Analysis Method: EPA 9060A
QC Batch Method: EPA 9060A Analysis Description: 9060 TOC
Associated Lab Samples: 7064634001, 7064634002, 7064634003, 7064634005, 7064634006, 7064634007, 7064634008, 7064634009

METHOD BLANK: 384826 Matrix: Water
Associated Lab Samples: 7064634001, 7064634002, 7064634003, 7064634005, 7064634006, 7064634007, 7064634008, 7064634009

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | <1.0 | 1.0 | 09/21/18 18:21 | |
| Total Organic Carbon | mg/L | <1.0 | 1.0 | 09/21/18 18:21 | |
| Total Organic Carbon | mg/L | <1.0 | 1.0 | 09/21/18 18:21 | |
| Total Organic Carbon | mg/L | <1.0 | 1.0 | 09/21/18 18:21 | |
| Total Organic Carbon | mg/L | <1.0 | 1.0 | 09/21/18 18:21 | |

LABORATORY CONTROL SAMPLE: 384827

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | 10 | 9.3 | 93 | 85-115 | |
| Total Organic Carbon | mg/L | 10 | 9.2 | 92 | 85-115 | |
| Total Organic Carbon | mg/L | 10 | 9.2 | 92 | 85-115 | |
| Total Organic Carbon | mg/L | 10 | 9.3 | 93 | 85-115 | |
| Total Organic Carbon | mg/L | 10 | 9.3 | 93 | 85-115 | |

MATRIX SPIKE SAMPLE: 384829

| Parameter | Units | 7064274008 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | 0.43J | 10 | 10.3 | 98 | 75-125 | |
| Total Organic Carbon | mg/L | 0.44J | 10 | 10.2 | 98 | 75-125 | |
| Total Organic Carbon | mg/L | 0.46J | 10 | 10.2 | 98 | 75-125 | |
| Total Organic Carbon | mg/L | 0.42J | 10 | 10.3 | 99 | 75-125 | |
| Total Organic Carbon | mg/L | 0.41J | 10 | 10.2 | 98 | 75-125 | |

MATRIX SPIKE SAMPLE: 384831

| Parameter | Units | 7064635001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | 0.47J | 10 | 10.8 | 103 | 75-125 | |
| Total Organic Carbon | mg/L | 0.45J | 10 | 10.7 | 103 | 75-125 | |
| Total Organic Carbon | mg/L | 0.47J | 10 | 10.8 | 104 | 75-125 | |
| Total Organic Carbon | mg/L | 0.49J | 10 | 10.8 | 103 | 75-125 | |
| Total Organic Carbon | mg/L | 0.48J | 10 | 10.8 | 104 | 75-125 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

SAMPLE DUPLICATE: 384828

| Parameter | Units | 7064274008 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | 0.43J | 0.43J | | |
| Total Organic Carbon | mg/L | 0.41J | 0.42J | | |
| Total Organic Carbon | mg/L | 0.46J | 0.45J | | |
| Total Organic Carbon | mg/L | 0.42J | 0.43J | | |
| Total Organic Carbon | mg/L | 0.44J | 0.43J | | |

SAMPLE DUPLICATE: 384830

| Parameter | Units | 7064635001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | 0.47J | 0.42J | | |
| Total Organic Carbon | mg/L | 0.45J | 0.49J | | |
| Total Organic Carbon | mg/L | 0.47J | 0.42J | | |
| Total Organic Carbon | mg/L | 0.49J | 0.40J | | |
| Total Organic Carbon | mg/L | 0.48J | 0.39J | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

QC Batch: 83611 Analysis Method: EPA 9060A
QC Batch Method: EPA 9060A Analysis Description: 9060 TOC
Associated Lab Samples: 7064634004, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

METHOD BLANK: 384832 Matrix: Water
Associated Lab Samples: 7064634004, 7064634010, 7064634011, 7064634012, 7064634013, 7064634014

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | <1.0 | 1.0 | 09/21/18 23:15 | |
| Total Organic Carbon | mg/L | <1.0 | 1.0 | 09/21/18 23:15 | |
| Total Organic Carbon | mg/L | <1.0 | 1.0 | 09/21/18 23:15 | |
| Total Organic Carbon | mg/L | <1.0 | 1.0 | 09/21/18 23:15 | |
| Total Organic Carbon | mg/L | <1.0 | 1.0 | 09/21/18 23:15 | |

LABORATORY CONTROL SAMPLE: 384833

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | 10 | 9.3 | 93 | 85-115 | |
| Total Organic Carbon | mg/L | 10 | 9.2 | 92 | 85-115 | |
| Total Organic Carbon | mg/L | 10 | 9.2 | 92 | 85-115 | |
| Total Organic Carbon | mg/L | 10 | 9.4 | 94 | 85-115 | |
| Total Organic Carbon | mg/L | 10 | 9.3 | 93 | 85-115 | |

MATRIX SPIKE SAMPLE: 384834

| Parameter | Units | 7064634004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | 6.2 | 10 | 15.7 | 95 | 75-125 | |
| Total Organic Carbon | mg/L | 5.9 | 10 | 15.3 | 94 | 75-125 | |
| Total Organic Carbon | mg/L | 6.0 | 10 | 16.1 | 101 | 75-125 | |
| Total Organic Carbon | mg/L | 6.7 | 10 | 15.7 | 90 | 75-125 | |
| Total Organic Carbon | mg/L | 6.1 | 10 | 15.7 | 96 | 75-125 | |

MATRIX SPIKE SAMPLE: 384837

| Parameter | Units | 7064634011 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | 0.81J | 10 | 9.9 | 91 | 75-125 | |
| Total Organic Carbon | mg/L | 0.78J | 10 | 9.9 | 91 | 75-125 | |
| Total Organic Carbon | mg/L | 0.84J | 10 | 9.9 | 91 | 75-125 | |
| Total Organic Carbon | mg/L | 0.71J | 10 | 9.8 | 91 | 75-125 | |
| Total Organic Carbon | mg/L | 0.92J | 10 | 9.9 | 89 | 75-125 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

## QUALITY CONTROL DATA

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

SAMPLE DUPLICATE: 384835

| Parameter | Units | 7064634004 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | 6.2 | 5.3 | 15 | |
| Total Organic Carbon | mg/L | 6.7 | 5.6 | 17 | |
| Total Organic Carbon | mg/L | 6.0 | 5.3 | 12 | |
| Total Organic Carbon | mg/L | 6.1 | 5.4 | 14 | |
| Total Organic Carbon | mg/L | 5.9 | 5.1 | 15 | |

SAMPLE DUPLICATE: 384836

| Parameter | Units | 7064635010 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Mean Total Organic Carbon | mg/L | 0.45J | 0.43J | | |
| Total Organic Carbon | mg/L | 0.49J | 0.45J | | |
| Total Organic Carbon | mg/L | 0.47J | 0.43J | | |
| Total Organic Carbon | mg/L | 0.44J | 0.41J | | |
| Total Organic Carbon | mg/L | 0.41J | 0.44J | | |

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## REPORT OF LABORATORY ANALYSIS

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(631)694-3040

# QUALIFIERS

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## ANALYTE QUALIFIERS

| | |
|---|---|
| B | Analyte was detected in the associated method blank. |
| CH | The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high. |
| CL | The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low. |
| H1 | Analysis conducted outside the EPA method holding time. |
| H3 | Sample was received or analysis requested beyond the recognized method holding time. |
| IH | This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value. |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |
| N | The reported TIC has an 85% or higher match on a mass spectral library search. |
| R1 | RPD value was outside control limits. |

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575 Broad Hollow Road
Melville, NY 11747
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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| 7064634001 | MW-6D | EPA 3005A | 84096 | EPA 6010C | 84099 |
| 7064634002 | MW-7A | EPA 3005A | 84096 | EPA 6010C | 84099 |
| 7064634003 | MW-7C | EPA 3005A | 84096 | EPA 6010C | 84099 |
| 7064634004 | MW-8B | EPA 3005A | 84096 | EPA 6010C | 84099 |
| 7064634005 | MW-9B | EPA 3005A | 84096 | EPA 6010C | 84099 |
| 7064634006 | MW-10B | EPA 3005A | 84096 | EPA 6010C | 84099 |
| 7064634009 | MW-12B | EPA 3005A | 83394 | EPA 6010C | 83399 |
| 7064634010 | MW-13 | EPA 3005A | 83394 | EPA 6010C | 83399 |
| 7064634011 | MW-14 | EPA 3005A | 83394 | EPA 6010C | 83399 |
| 7064634012 | SEEP | EPA 3005A | 83394 | EPA 6010C | 83399 |
| 7064634013 | STREAM | EPA 3005A | 83394 | EPA 6010C | 83399 |
| 7064634014 | DUP | EPA 3005A | 83394 | EPA 6010C | 83399 |
| 7064634001 | MW-6D | EPA 7470A | 84039 | EPA 7470A | 84051 |
| 7064634002 | MW-7A | EPA 7470A | 84039 | EPA 7470A | 84051 |
| 7064634003 | MW-7C | EPA 7470A | 84039 | EPA 7470A | 84051 |
| 7064634004 | MW-8B | EPA 7470A | 84039 | EPA 7470A | 84051 |
| 7064634006 | MW-10B | EPA 7470A | 84039 | EPA 7470A | 84051 |
| 7064634009 | MW-12B | EPA 7470A | 84039 | EPA 7470A | 84051 |
| 7064634010 | MW-13 | EPA 7470A | 83361 | EPA 7470A | 83402 |
| 7064634011 | MW-14 | EPA 7470A | 83361 | EPA 7470A | 83402 |
| 7064634012 | SEEP | EPA 7470A | 83361 | EPA 7470A | 83402 |
| 7064634013 | STREAM | EPA 7470A | 83361 | EPA 7470A | 83402 |
| 7064634014 | DUP | EPA 7470A | 83361 | EPA 7470A | 83402 |
| 7064634001 | MW-6D | EPA 8260C/5030C | 83278 | | |
| 7064634002 | MW-7A | EPA 8260C/5030C | 83278 | | |
| 7064634003 | MW-7C | EPA 8260C/5030C | 83278 | | |
| 7064634004 | MW-8B | EPA 8260C/5030C | 83278 | | |
| 7064634005 | MW-9B | EPA 8260C/5030C | 83278 | | |
| 7064634006 | MW-10B | EPA 8260C/5030C | 83278 | | |
| 7064634007 | MW-11B | EPA 8260C/5030C | 83278 | | |
| 7064634008 | MW-12A | EPA 8260C/5030C | 83278 | | |
| 7064634009 | MW-12B | EPA 8260C/5030C | 83278 | | |
| 7064634010 | MW-13 | EPA 8260C/5030C | 83278 | | |
| 7064634011 | MW-14 | EPA 8260C/5030C | 83278 | | |
| 7064634012 | SEEP | EPA 8260C/5030C | 83278 | | |
| 7064634013 | STREAM | EPA 8260C/5030C | 83278 | | |
| 7064634014 | DUP | EPA 8260C/5030C | 83278 | | |
| 7064634015 | TRIP BLANK | EPA 8260C/5030C | 83278 | | |
| 7064634016 | STORAGE BLANK | EPA 8260C/5030C | 83278 | | |
| 7064634001 | MW-6D | EPA 8260 | | | |
| 7064634002 | MW-7A | EPA 8260 | | | |
| 7064634003 | MW-7C | EPA 8260 | | | |
| 7064634004 | MW-8B | EPA 8260 | | | |
| 7064634005 | MW-9B | EPA 8260 | | | |
| 7064634006 | MW-10B | EPA 8260 | | | |
| 7064634007 | MW-11B | EPA 8260 | | | |

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Ischua Landfill 9/12
Pace Project No.: 7064634

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| 7064634010 | MW-13 | EPA 8260 | | | |
| 7064634011 | MW-14 | EPA 8260 | | | |
| 7064634012 | SEEP | EPA 8260 | | | |
| 7064634013 | STREAM | EPA 8260 | | | |
| 7064634014 | DUP | EPA 8260 | | | |
| 7064634015 | TRIP BLANK | EPA 8260 | | | |
| 7064634016 | STORAGE BLANK | EPA 8260 | | | |
| 7064634002 | MW-7A | SM22 2120B | 82877 | | |
| 7064634003 | MW-7C | SM22 2120B | 82877 | | |
| 7064634004 | MW-8B | SM22 2120B | 82877 | | |
| 7064634006 | MW-10B | SM22 2120B | 82877 | | |
| 7064634009 | MW-12B | SM22 2120B | 82877 | | |
| 7064634010 | MW-13 | SM22 2120B | 82877 | | |
| 7064634011 | MW-14 | SM22 2120B | 82877 | | |
| 7064634012 | SEEP | SM22 2120B | 82877 | | |
| 7064634013 | STREAM | SM22 2120B | 82877 | | |
| 7064634014 | DUP | SM22 2120B | 82877 | | |
| 7064634002 | MW-7A | SM22 2320B | 84380 | | |
| 7064634003 | MW-7C | SM22 2320B | 84380 | | |
| 7064634004 | MW-8B | SM22 2320B | 84380 | | |
| 7064634006 | MW-10B | SM22 2320B | 84380 | | |
| 7064634009 | MW-12B | SM22 2320B | 84380 | | |
| 7064634010 | MW-13 | SM22 2320B | 84380 | | |
| 7064634011 | MW-14 | SM22 2320B | 84478 | | |
| 7064634012 | SEEP | SM22 2320B | 84478 | | |
| 7064634013 | STREAM | SM22 2320B | 84478 | | |
| 7064634014 | DUP | SM22 2320B | 84478 | | |
| 7064634001 | MW-6D | SM22 2340C | 84305 | | |
| 7064634002 | MW-7A | SM22 2340C | 84305 | | |
| 7064634003 | MW-7C | SM22 2340C | 84305 | | |
| 7064634004 | MW-8B | SM22 2340C | 84479 | | |
| 7064634005 | MW-9B | SM22 2340C | 84479 | | |
| 7064634006 | MW-10B | SM22 2340C | 84479 | | |
| 7064634009 | MW-12B | SM22 2340C | 84479 | | |
| 7064634010 | MW-13 | SM22 2340C | 84479 | | |
| 7064634011 | MW-14 | SM22 2340C | 84479 | | |
| 7064634012 | SEEP | SM22 2340C | 84479 | | |
| 7064634013 | STREAM | SM22 2340C | 84479 | | |
| 7064634014 | DUP | SM22 2340C | 84479 | | |
| 7064634002 | MW-7A | SM22 2540C | 83380 | | |
| 7064634003 | MW-7C | SM22 2540C | 83380 | | |
| 7064634004 | MW-8B | SM22 2540C | 83380 | | |
| 7064634006 | MW-10B | SM22 2540C | 83380 | | |
| 7064634007 | MW-11B | SM22 2540C | 83380 | | |
| 7064634008 | MW-12A | SM22 2540C | 83380 | | |
| 7064634009 | MW-12B | SM22 2540C | 83380 | | |

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| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| 7064634010 | MW-13 | SM22 2540C | 83380 | | |
| 7064634011 | MW-14 | SM22 2540C | 83380 | | |
| 7064634012 | SEEP | SM22 2540C | 83380 | | |
| 7064634013 | STREAM | SM22 2540C | 83380 | | |
| 7064634014 | DUP | SM22 2540C | 83380 | | |
| 7064634002 | MW-7A | SM22 3500-Cr B | 82879 | | |
| 7064634003 | MW-7C | SM22 3500-Cr B | 82879 | | |
| 7064634004 | MW-8B | SM22 3500-Cr B | 82879 | | |
| 7064634006 | MW-10B | SM22 3500-Cr B | 82879 | | |
| 7064634009 | MW-12B | SM22 3500-Cr B | 82879 | | |
| 7064634010 | MW-13 | SM22 3500-Cr B | 82879 | | |
| 7064634011 | MW-14 | SM22 3500-Cr B | 82879 | | |
| 7064634012 | SEEP | SM22 3500-Cr B | 82879 | | |
| 7064634013 | STREAM | SM22 3500-Cr B | 82879 | | |
| 7064634014 | DUP | SM22 3500-Cr B | 82879 | | |
| 7064634002 | MW-7A | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634003 | MW-7C | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634004 | MW-8B | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634005 | MW-9B | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634006 | MW-10B | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634009 | MW-12B | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634010 | MW-13 | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634011 | MW-14 | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634012 | SEEP | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634013 | STREAM | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634014 | DUP | EPA 410.4 | 83767 | EPA 410.4 | 83793 |
| 7064634002 | MW-7A | SM22 5210B | 82902 | SM22 5210B | 83779 |
| 7064634003 | MW-7C | SM22 5210B | 82902 | SM22 5210B | 83779 |
| 7064634004 | MW-8B | SM22 5210B | 82907 | SM22 5210B | 83780 |
| 7064634006 | MW-10B | SM22 5210B | 82907 | SM22 5210B | 83780 |
| 7064634007 | MW-11B | SM22 5210B | 82902 | SM22 5210B | 83779 |
| 7064634008 | MW-12A | SM22 5210B | 82902 | SM22 5210B | 83779 |
| 7064634009 | MW-12B | SM22 5210B | 82902 | SM22 5210B | 83779 |
| 7064634010 | MW-13 | SM22 5210B | 82907 | SM22 5210B | 83780 |
| 7064634011 | MW-14 | SM22 5210B | 82907 | SM22 5210B | 83780 |
| 7064634012 | SEEP | SM22 5210B | 82907 | SM22 5210B | 83780 |
| 7064634013 | STREAM | SM22 5210B | 82907 | SM22 5210B | 83780 |
| 7064634014 | DUP | SM22 5210B | 82902 | SM22 5210B | 83779 |
| 7064634002 | MW-7A | EPA 300.0 | 84647 | | |
| 7064634003 | MW-7C | EPA 300.0 | 84647 | | |
| 7064634004 | MW-8B | EPA 300.0 | 84647 | | |
| 7064634006 | MW-10B | EPA 300.0 | 84647 | | |
| 7064634007 | MW-11B | EPA 300.0 | 84647 | | |
| 7064634008 | MW-12A | EPA 300.0 | 84647 | | |
| 7064634009 | MW-12B | EPA 300.0 | 84647 | | |

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| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| 7064634010 | MW-13 | EPA 300.0 | 84647 | | |
| 7064634011 | MW-14 | EPA 300.0 | 84647 | | |
| 7064634012 | SEEP | EPA 300.0 | 84647 | | |
| 7064634013 | STREAM | EPA 300.0 | 84647 | | |
| 7064634014 | DUP | EPA 300.0 | 84647 | | |
| 7064634002 | MW-7A | EPA 351.2 | 84466 | EPA 351.2 | 84481 |
| 7064634003 | MW-7C | EPA 351.2 | 84466 | EPA 351.2 | 84481 |
| 7064634004 | MW-8B | EPA 351.2 | 84466 | EPA 351.2 | 84481 |
| 7064634005 | MW-9B | EPA 351.2 | 84466 | EPA 351.2 | 84481 |
| 7064634006 | MW-10B | EPA 351.2 | 84466 | EPA 351.2 | 84481 |
| 7064634009 | MW-12B | EPA 351.2 | 84466 | EPA 351.2 | 84481 |
| 7064634010 | MW-13 | EPA 351.2 | 84467 | EPA 351.2 | 84482 |
| 7064634011 | MW-14 | EPA 351.2 | 84467 | EPA 351.2 | 84482 |
| 7064634012 | SEEP | EPA 351.2 | 84467 | EPA 351.2 | 84482 |
| 7064634013 | STREAM | EPA 351.2 | 84467 | EPA 351.2 | 84482 |
| 7064634014 | DUP | EPA 351.2 | 84467 | EPA 351.2 | 84482 |
| 7064634002 | MW-7A | EPA 353.2 | 82960 | | |
| 7064634003 | MW-7C | EPA 353.2 | 82960 | | |
| 7064634004 | MW-8B | EPA 353.2 | 82960 | | |
| 7064634005 | MW-9B | EPA 353.2 | 82960 | | |
| 7064634006 | MW-10B | EPA 353.2 | 82960 | | |
| 7064634009 | MW-12B | EPA 353.2 | 82960 | | |
| 7064634010 | MW-13 | EPA 353.2 | 82960 | | |
| 7064634011 | MW-14 | EPA 353.2 | 82960 | | |
| 7064634012 | SEEP | EPA 353.2 | 82960 | | |
| 7064634013 | STREAM | EPA 353.2 | 82960 | | |
| 7064634014 | DUP | EPA 353.2 | 82960 | | |
| 7064634002 | MW-7A | EPA 353.2 | 82947 | | |
| 7064634003 | MW-7C | EPA 353.2 | 82947 | | |
| 7064634004 | MW-8B | EPA 353.2 | 82947 | | |
| 7064634006 | MW-10B | EPA 353.2 | 82947 | | |
| 7064634007 | MW-11B | EPA 353.2 | 82947 | | |
| 7064634008 | MW-12A | EPA 353.2 | 82947 | | |
| 7064634009 | MW-12B | EPA 353.2 | 82947 | | |
| 7064634010 | MW-13 | EPA 353.2 | 82947 | | |
| 7064634011 | MW-14 | EPA 353.2 | 82947 | | |
| 7064634012 | SEEP | EPA 353.2 | 82947 | | |
| 7064634013 | STREAM | EPA 353.2 | 82947 | | |
| 7064634014 | DUP | EPA 353.2 | 82947 | | |
| 7064634002 | MW-7A | EPA 420.1 | 84146 | EPA 420.1 | 84243 |
| 7064634003 | MW-7C | EPA 420.1 | 84146 | EPA 420.1 | 84243 |
| 7064634004 | MW-8B | EPA 420.1 | 84508 | EPA 420.1 | 84575 |
| 7064634005 | MW-9B | EPA 420.1 | 84508 | EPA 420.1 | 84575 |
| 7064634006 | MW-10B | EPA 420.1 | 84508 | EPA 420.1 | 84575 |
| 7064634009 | MW-12B | EPA 420.1 | 84508 | EPA 420.1 | 84575 |
| 7064634010 | MW-13 | EPA 420.1 | 84508 | EPA 420.1 | 84575 |

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| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| 7064634011 | MW-14 | EPA 420.1 | 84508 | EPA 420.1 | 84575 |
| 7064634012 | SEEP | EPA 420.1 | 84508 | EPA 420.1 | 84575 |
| 7064634013 | STREAM | EPA 420.1 | 84508 | EPA 420.1 | 84575 |
| 7064634014 | DUP | EPA 420.1 | 84508 | EPA 420.1 | 84575 |
| 7064634002 | MW-7A | SM22 4500 NH3 H | 84318 | | |
| 7064634003 | MW-7C | SM22 4500 NH3 H | 84319 | | |
| 7064634004 | MW-8B | SM22 4500 NH3 H | 84319 | | |
| 7064634005 | MW-9B | SM22 4500 NH3 H | 84319 | | |
| 7064634006 | MW-10B | SM22 4500 NH3 H | 84319 | | |
| 7064634009 | MW-12B | SM22 4500 NH3 H | 84319 | | |
| 7064634010 | MW-13 | SM22 4500 NH3 H | 84319 | | |
| 7064634011 | MW-14 | SM22 4500 NH3 H | 84319 | | |
| 7064634012 | SEEP | SM22 4500 NH3 H | 84319 | | |
| 7064634013 | STREAM | SM22 4500 NH3 H | 84319 | | |
| 7064634014 | DUP | SM22 4500 NH3 H | 84319 | | |
| 7064634002 | MW-7A | EPA 9010C | 83564 | EPA 9014 Total Cyanide | 83625 |
| 7064634003 | MW-7C | EPA 9010C | 83564 | EPA 9014 Total Cyanide | 83625 |
| 7064634004 | MW-8B | EPA 9010C | 84114 | EPA 9014 Total Cyanide | 84117 |
| 7064634009 | MW-12B | EPA 9010C | 84114 | EPA 9014 Total Cyanide | 84117 |
| 7064634010 | MW-13 | EPA 9010C | 84114 | EPA 9014 Total Cyanide | 84117 |
| 7064634011 | MW-14 | EPA 9010C | 84114 | EPA 9014 Total Cyanide | 84117 |
| 7064634012 | SEEP | EPA 9010C | 84114 | EPA 9014 Total Cyanide | 84117 |
| 7064634013 | STREAM | EPA 9010C | 84114 | EPA 9014 Total Cyanide | 84117 |
| 7064634014 | DUP | EPA 9010C | 84114 | EPA 9014 Total Cyanide | 84117 |
| 7064634001 | MW-6D | EPA 9060A | 83610 | | |
| 7064634002 | MW-7A | EPA 9060A | 83610 | | |
| 7064634003 | MW-7C | EPA 9060A | 83610 | | |
| 7064634004 | MW-8B | EPA 9060A | 83611 | | |
| 7064634005 | MW-9B | EPA 9060A | 83610 | | |
| 7064634006 | MW-10B | EPA 9060A | 83610 | | |
| 7064634007 | MW-11B | EPA 9060A | 83610 | | |
| 7064634008 | MW-12A | EPA 9060A | 83610 | | |
| 7064634009 | MW-12B | EPA 9060A | 83610 | | |
| 7064634010 | MW-13 | EPA 9060A | 83611 | | |
| 7064634011 | MW-14 | EPA 9060A | 83611 | | |
| 7064634012 | SEEP | EPA 9060A | 83611 | | |
| 7064634013 | STREAM | EPA 9060A | 83611 | | |
| 7064634014 | DUP | EPA 9060A | 83611 | | |

Pace Analytical* Long Island Laboratory

# Sample Condition Upon Receipt

Client Name: LBA-B

Proje WO#:7064634

PM: JSA Due Date: 09/27/18

CLIENT: LBA-B

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #: 441481296626

Custody Seal on Cooler/Box Present: ☑ Yes ☐ No Seals intact: ☐ Yes ☐ No

Temperature Blank Present: ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☑ Ziploc ☐ None ☐ Other

Type of Ice: Wet Blue None

Thermometer Used: TH091 Correction Factor: 0.0

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 4.2 Cooler Temperature Corrected (°C): 4.2

Date/Time 5035A kits placed in freezer _____

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☑ N/A, water sample)

Date and Initials of person examining contents: 9/13 ML

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples orignate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

**If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.**

| | | | | COMMENTS: |
|---|---|---|---|---|
| Chain of Custody Present: | ☑Yes | ☐No | | 1. |
| Chain of Custody Filled Out: | ☑Yes | ☐No | | 2. |
| Chain of Custody Relinquished: | ☑Yes | ☐No | | 3. |
| Sampler Name & Signature on COC: | ☑Yes | ☐No | ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes | ☐No | | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes | ☐No | | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes | ☑No | | 7. |
| Sufficient Volume: (Triple volume provided for MS/MSD | ☑Yes | ☐No | | 8. |
| Correct Containers Used: | ☑Yes | ☐No | | 9. |
| -Pace Containers Used: | ☑Yes | ☐No | | |
| Containers Intact: | ☑Yes | ☐No | | 10. |
| Filtered volume received for Dissolved tests | ☐Yes | ☐No | ☑N/A | 11. Note if sediment is visible in the dissolved container. |
| Sample Labels match COC: | ☑Yes | ☐No | | 12. Sample 005 logged off bottle provided (sulfuric) - no unpres. vol. provided for 005 - |
| -Includes date/time/ID/Analysis Matrix SL WT OIL | | | | |
| All containers needing preservation have been checked | ☑Yes | ☐No | ☐N/A | 13. ☐ $HNO_3$ ☐ $H_2SO_4$ ☐ NaOH ☐ HCl |
| pH paper Lot # HC739245 | | | | |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis | ☑Yes | ☐No | ☐N/A | Sample # |
| | | | | Initial when completed: / Lot # of added preservative: / Date/Time preservative added: |
| Samples checked for dechlorination: | ☐Yes | ☐No | ☑N/A | 14. |
| KI starch test strips Lot # | | | | Positive for Res. Chlorine? Y N |
| Residual chlorine strips Lot # | | | | |
| Headspace in VOA Vials ( >6mm): | ☐Yes | ☐No | ☑N/A | 15. |
| Trip Blank Present: | ☐Yes | ☐No | ☑N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes | ☐No | ☑N/A | |
| Pace Trip Blank Lot # (if applicable): _____ | | | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

* PM (Project Manager) review is documented electronically in LIMS.

# APPENDIX D

Historical Analytical Results Tables

MW-6A
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Bromobenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Bromochloromethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Bromodichloromethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| sec-Butylbenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| tert-Butylbenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Chlorobenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Chloroethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Chloroform | <DL | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 2-Chlorotoluene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 4-Chlorotoluene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Dibromochloromethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,2-Dichlorobenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,3-Dichlorobenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,4-Dichlorobenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,1-Dichloroethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,2-Dichloroethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,1-Dichloroethene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| cis-1,2-Dichloroethene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| trans-1,2-Dichloroethene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,2-Dichloropropane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,3-Dichloropropane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 2,2-Dichloropropane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,1-Dichloropropene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| cis-1-3-Dichloropropene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Ethylbenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| p-Isopropyltoluene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Methylene chloride | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| n-Propylbenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Styrene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Tetrachloroethene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Toluene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,2,3-Trichlorobenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,2,4-Trichlorobenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,1,2-Trichloroethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Trichloroethene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Trichlorofluoromethane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,2,3-Trichloropropane | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,2,4-Trimethylbenzene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| o-Xylene | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |
| p-Xylene & m-Xylene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ND |

MW-6A
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Magnesium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chromium (Total) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thallium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Biochemical Oxygen Demand | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boron | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chemical Oxygen Demand | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chromium (Hexavalent) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color (PCU units) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate-Nitrite | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrogen-Ammonia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5.2 |
| Total Dissolved Solids (TDS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Hardness | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Kjeldahl Nitrogen (TKN) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Turbidity (NTU units) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyanide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MW-6A
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 6/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | ND | ND | ND | ND | | 2.4 | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0.133 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Benzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 1.0 |
| Bromobenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Bromochloromethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Bromodichloromethane | | | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 50.0 |
| Bromoform | | | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 50.0 |
| Bromomethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 50.0 |
| n-Butylbenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| sec-Butylbenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| tert-Butylbenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 60.0 |
| Carbon tetrachloride | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Chlorobenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Chloroethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Chloroform | | | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 7.0 |
| Chloromethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 2-Chlorotoluene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 4-Chlorotoluene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Dibromochloromethane | | | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.04 |
| 1,2-Dibromoethane | | | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Dibromomethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,2-Dichlorobenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 3.0 |
| 1,3-Dichlorobenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 3.0 |
| 1,4-Dichlorobenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Dichlorodifluoromethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,1-Dichloroethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,2-Dichloroethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.6 |
| 1,1-Dichloroethene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| cis-1,2-Dichloroethene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| trans-1,2-Dichloroethene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,2-Dichloropropane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 1.0 |
| 1,3-Dichloropropane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 2,2-Dichloropropane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,1-Dichloropropene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| cis-1-3-Dichloropropene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.4* |
| trans-1,3-Dichloropropene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.4* |
| Ethylbenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 50.0 |
| Hexachlorobutadiene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Isopropylbenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| p-Isopropyltoluene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Methylene chloride | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | |
| Naphthalene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 10.0** |
| n-Propylbenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Styrene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,1,1,2-Tetrachloroethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,1,2,2-Tetrachloroethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Tetrachloroethene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Toluene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,2,3-Trichlorobenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,2,4-Trichlorobenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,1,1-Trichloroethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,1,2-Trichloroethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 1.0 |
| Trichloroethene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Trichlorofluoromethane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,2,3-Trichloropropane | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.04 |
| 1,2,4-Trimethylbenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,3,5-Trimethylbenzene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | |
| Vinyl chloride | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 2.0 |
| o-Xylene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |
| p-Xylene & m-Xylene | | ND | | ND | | | ND | ND | ND | ND | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 5.0 |

MW-6A
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 6/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | - | | | | | | | | | | |
| Aluminum | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | |
| Calcium | | | | | | | | | | 78.6 | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 5.614 | |
| Iron | | | | | | | | | | 11 | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0.786 | 0.3 |
| Magnesium | | | | | | | | | | 23.3 | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 1.664 | 35.0 |
| Manganese | | | | | | | | | | 0.36 | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0.026 | 0.3 |
| Potassium | | | | | | | | | | 4.6 | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0.329 | |
| Sodium | | | | | | | | | | 4.9 | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0.35 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.003 |
| Arsenic | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.025 |
| Barium | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 1.0 |
| Beryllium | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | |
| Cadmium | | | | | | | | | | ND | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.005 |
| Chromium (Total) | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.05 |
| Copper | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.2 |
| Lead | | | | | | | | | | 0.015 | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0.001 | 0.025 |
| Mercury | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.0007 |
| Nickel | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.1 |
| Selenium | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.0 |
| Silver | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.05 |
| Thallium | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.0005 |
| Zinc | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | |
| Biochemical Oxygen Demand | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | |
| Boron | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 1.0 |
| Chemical Oxygen Demand | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | |
| Chromium (Hexavalent) | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.05 |
| Chloride | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 250.0 |
| Color (PCU units) | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 15.0 |
| Nitrate-Nitrite | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 10.0 |
| Nitrogen-Ammonia | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 2.0 |
| Phenols | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.001 |
| Sulfate | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 250.0 |
| Total Organic Carbon (TOC) | | ND | | | | | ND | ND | 2.3 | 1.5 | | 1.4 | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0.52 | |
| Total Dissolved Solids (TDS) | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 500.0 |
| Total Hardness | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | |
| Total Kjeldahl Nitrogen (TKN) | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | |
| Turbidity (NTU units) | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | 0 | 0 | 5.0 |
| Cyanide | | | | | | | | | | | | | | | | | | 0 | | | | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected. J = Estimated.
<DL = Detected below method detection limit. B = Analyte was detected in method blank.

MW-6D
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Bromobenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Bromochloromethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Bromodichloromethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | ND | ND | ND | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| sec-Butylbenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| tert-Butylbenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Chlorobenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Chloroethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Chloroform | 0.36 | ND | ND | ND | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | ND | ND | 8.0 | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 2-Chlorotoluene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 4-Chlorotoluene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Dibromochloromethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | ND | | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | ND | ND | ND | | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,2-Dichlorobenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | ND | ND | 4.0 | | | 5.0 | | 3.0 | | ND | | | | ND | | | | 0.90 | | | | 0.9 J | | ND | | | | | | ND | | | | ND |
| 1,1-Dichloroethane | 0.51 | 0.69 | <DL | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,1-Dichloroethene | ND | ND | <DL | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| cis-1,2-Dichloroethene | ND | 0.40 | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,2-Dichloropropane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,3-Dichloropropane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 2,2-Dichloropropane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,1-Dichloropropene | ND | ND | <DL | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Ethylbenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| p-Isopropyltoluene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Methylene chloride | <DL | <DL | <DL | 1.0 | | | 2.0 | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | ND | ND | <DL | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| n-Propylbenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Styrene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Tetrachloroethene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Toluene | ND | ND | ND | ND | | | ND | | ND | | 0.9 | | | | ND | | | | ND | | | | 7.00 | | ND | | | | | | ND | | | | ND |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | 1.00 | | | | ND |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Trichloroethene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Trichlorofluoromethane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | ND | <DL | ND | | | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| o-Xylene | ND | ND | ND | ND | | | | | | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| p-Xylene & m-Xylene | | | ND | ND | | | | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |

MW-6D
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 5.7 | | | | | | | | 34.30 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | 86.5 | 88.5 | 65.7 | 102 | | | 66.40 | 70.20 | 99.00 | 75.40 | 78.80 | 72.6 | | 119 | 128 | 69.4 | | | 73.10 | | | 80.7 | 91.6 | | 94.7 | | | | | | 88.1 | | | | 90.9 |
| Iron | 21 | 13.1 | 0.4 | 44.8 | | | 0.70 | 1.50 | 62.80 | 10.40 | 26.20 | 17.2 | | 187 | 152 | 0.92 | | | 9.23 | | | 5.78 | 4.82 | | 49.7 | | | | | | 10.3 | | | | 24.7 |
| Magnesium | 7.8 | 19.1 | 17.7 | 27.5 | | | 17.70 | 19.40 | 28.60 | 20.80 | 22.10 | 19.9 | | 49.7 | 48.5 | 19.4 | | | 19.30 | | | 21.0 | 23.6 | | 30.0 | | | | | | 23.7 | | | | 25.6 |
| Manganese | 0.32 | 0.32 | 0.2 | 0.73 | | | 0.03 | 0.08 | 1.23 | 0.23 | 0.459 | 0.361 | | 3.34 | 3.11 | 0.03 | | | 0.19 | | | 0.288 | 0.359 | | 0.976 | | | | | | 0.235 | | | | 0.689 |
| Potassium | 5.4 | 4.8 | 2 | 9.7 | | | 2.80 | 8.00 | 11.30 | 4.48 | 8.78 | 5.22 | | 21.8 | 17.9 | 3.96 | | | 4.28 | | | 4.60 | 5.76 | | 10.3 | | | | | | 7.12 | | | | 6.46 |
| Sodium | 8.7 | 4.7 | 7.1 | 7.5 | | | 5.10 | 6.20 | 4.87 | 4.98 | 16.16 | 8.23 | | 6.24 | 8.57 | 5.62 | | | 4.65 | | | 5.13 | 6.48 | | 6.33 | | | | | | 5.77 | | | | 5.24 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | <DL | | | | | | | | 0.028 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | ND | | | | | | | | 0.029 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barium | 0.12 | 0.1 | ND | 0.23 | | | 0.06 | 0.07 | 0.296 | 0.100 | 0.17 | 0.124 | | 0.661 | 0.565 | 0.05 | | | 0.09 | | | 0.082 | 0.072 | | 0.273 | | | | | | 0.092 | | | | 0.162 |
| Beryllium | | | | | | | | | 0.003 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | | 0 | ND | ND | | | ND | ND | ND | ND | ND | ND | | | 0.008 | ND | | | ND | | | 0.004 | 0.004 | | ND | | | | | | ND | | | | ND |
| Chromium (Total) | <DL | 0.01 | <DL | 0.04 | | | ND | 0.01 | 0.062 | | 0.054 | 0.023 | | 0.174 | 0.159 | ND | | | 0.03 | | | 0.016 | 0.020 | | 0.062 | | | | | | 0.038 | | | | 0.02 |
| Copper | <DL | | | | | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | 0.011 | 0.010 | 0.002 | 0.022 | | | ND | 0.009 | 0.043 | 0.006 | 0.013 | 0.017 | | 0.280 | 0.140 | 0.006 | | | 0.006 | | | 0.006 | 0.005 | | 0.050 | | | | | | 0.008 | | | | 0.035 |
| Mercury | ND | <DL | ND | ND | | | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | | ND | | | ND | ND | | ND | | | | | | ND | | | | ND |
| Nickel | 0.25 | | | | | | | | 0.040 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | 0.028 | <DL | <DL | ND | | | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | | ND | | | ND | ND | | ND | | | | | | ND | | | | ND |
| Silver | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | | ND | | | ND | ND | | ND | | | | | | ND | | | | ND |
| Thallium | 0.04 | | | | | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | 0.04 | | | | | | | | 0.182 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **ARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 531 | 237 | 243 | 241 | | | 286.0 | 268.0 | 278.0 | 240.0 | 252 | 239 | | 239 | 250 | 255 | | | 246 | | | 273 | 271 | | 266 | | | | | | 318 | | | | 266 |
| Biochemical Oxygen Demand | 20 | | | | | | | | 12.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boron | ND | | | | | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chemical Oxygen Demand | 190 | 24 | <DL | ND | | | ND | 31.0 | 124.0 | 126.0 | 84.6 | 47.3 | | 101 | 21.6 | 24.1 | | | ND | | | 294 | 66.2 | | ND | | | | | | 73.9 | | | | ND |
| Chromium (Hexavalent) | <DL | | | | | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | 6 | 12 | 12 | 4 | | | 7.0 | 15.0 | ND | 6.4 | 7.26 | 9.72 | | 7.1 | 6.5 | 8.43 | | | 6.10 | | | 5.89 | 6.02 | | 13.2 | | | | | | 6.91 | | | | 4.28 |
| Color (PCU units) | 15 | | | | | | | | 10.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate-Nitrite | <DL | <DL | <DL | 0.68 | | | ND | 0.3 | 0.14 | ND | 0.277 | 0.087 | | 0.331 | ND | ND | | | ND | | | ND | ND | | ND | | | | | | 0.098 | | | | ND |
| Nitrogen-Ammonia | <DL | <DL | 1.3 | 0.3 | | | ND | 0.2 | 0.08 | 0.01 | 0.176 | 0.055 | | 0.52 | 0.086 | 0.01 | | | 0.072 | | | 0.103 | 0.110 | | ND | | | | | | ND | | | | ND |
| Phenols | 0.003 | ND | ND | 0.811 | | | ND | ND | ND | ND | 0.003 | 0.007 | | ND | 0.008 | ND | | | 0.012 | | | ND | 0.002 | | 0.002 | | | | | | 0.014 | | | | 0.0118 |
| Sulfate | 29 | 39.8 | 25.4 | 32 | | | 29.0 | 36.0 | 17.0 | 42.0 | 37 | 39 | | 37 | 35 | 34 | | | 30 | | | 32 | ND | | 31 | | | | | | 40 | | | | 30.1 |
| Total Organic Carbon (TOC) | 25 | 24 | 2.7 | 1 | | | ND | 45.0 | 6.5 | 16.0 | 14.8 | 6.8 | | 8.7 | 3 | 4 | | | 5.4 | | | 9.7 | 6.0 | | 4.4 | | | | | | 12.0 | | | | 3.9 |
| Total Dissolved Solids (TDS) | 324 | 351 | 294 | 366 | | | 281.0 | 336.0 | 290.0 | 305.0 | 318 | 331 | | 361 | 282 | 296 | | | 266 | | | 283 | 318 | | 284 | | | | | | 336 | | | | 333 |
| Total Hardness | 248 | 304 | 237 | 368 | | | 238.0 | 255.0 | 1070 | 308.0 | 981 | 360 | | 840 | 654 | 310 | | | 262 | | | 288 | 326 | | 360 | | | | | | 318 | | | | 332 |
| Total Kjeldahl Nitrogen (TKN) | 7.7 | | | | | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Turbidity (NTU units) | 0.5 | 3150 | 195 | 910 | | | 83.0 | 400 | 650 | 1600 | 2000 | 1600 | | 340 | 30 | 110 | | | 340 | | | 330 | 85 | | 34 | | | | | | 61 | | | | 220 |
| Cyanide | 0.004 | | | | | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |

MW-6D
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | ND | ND | 2.3 | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.10 | 50.0 |
| Acrylonitrile | | | | | | | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Benzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 1.0 |
| Bromobenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 50.0 |
| Bromoform | | | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 50.0 |
| Bromomethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | 0.45 | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.01 | 5.0 |
| 2-Butanone | | | | | | | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 50.0 |
| n-Butylbenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| tert-Butylbenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Carbon disulfide | | | | | | | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 60.0 |
| Carbon tetrachloride | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Chloroethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Chloroform | | | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.01 | 7.0 |
| Chloromethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.20 | 5.0 |
| 2-Chlorotoluene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Dibromomethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 3.0 |
| 1,3-Dichlorobenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | ND | - | 0.00 | 3.0 |
| 1,4-Dichlorobenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | | ND | ND | ND | 0.34 | ND | | ND | ND | ND | | 0.37 | | 0.4 | 0.38 | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | ND | - | 0.36 | 5.0 |
| 1,1-Dichloroethane | | ND | ND | ND | 0.39 | 0.4 | | 0.43 | 0.43 | 0.36 | | 0.48 | | 0.43 | 0.55 | 0.45 | | 0.41 | ND | ND | | 0.33 | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.15 | 5.0 |
| 1,2-Dichloroethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 0.6 |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| cis-1,2-Dichloroethene | | ND | ND | ND | ND | ND | | ND | 0.39 | ND | | 0.3 | | 0.27 | 0.46 | ND | | ND | ND | ND | | 0.3 | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.05 | 5.0 |
| trans-1,2-Dichloroethene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | 0.35 | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.01 | 5.0 |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | 0.34 | - | - | - | - | ND | - | ND | ND | 0.01 | 0.4 |
| Ethylbenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| 2-Hexanone | | | | | | | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| p-Isopropyltoluene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Methylene chloride | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.08 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | |
| Naphthalene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 10.0 |
| n-Propylbenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Styrene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Toluene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.20 | 5.0 |
| 1,2,3-Trichlorobenzene | | ND | ND | ND | 0.65 | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.02 | 5.0 |
| 1,2,4-Trichlorobenzene | | ND | ND | ND | 1.8 | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.05 | 5.0 |
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.03 | 5.0 |
| 1,1,2-Trichloroethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 1.0 |
| Trichloroethene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| Trichlorofluoromethane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Vinyl acetate | | | | | | | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | |
| Vinyl chloride | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 2.0 |
| o-Xylene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |
| p-Xylene & m-Xylene | | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 5.0 |

MW-6D
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | 16.3 | | 2.4 | | | | 0.45 | | | 1.6 | | 0.49 | | | | 0.42 | | | | 0.31 | - | - | ND | - | - | - | - | 0.367 | - | - | 27.3 | 4.48 | |
| Calcium | | | 98.8 | 95.6 | 118 | 139 | | 90.9 | 87.3 | | | 95.6 | | 101 | 92.9 | 94 | | 101 | | 96 | | 82.9 | - | 87.8 | ND | - | - | - | - | 90.7 | - | 96 | 120 | 77.40 | |
| Iron | | | 31.6 | 0.35 | 3.9 | 4.1 | | 0.49 | 0.56 | | | 1.7 | | 0.403 | 0.128 | 0.178 | | 0.29 | | 0.57 | | 0.34 | - | 0.39 | ND | - | - | - | - | 0.723 | - | 1.32 | 63.4 | 17.51 | 0.3 |
| Magnesium | | | 27.8 | 23.6 | 24.5 | 26 | | 23.9 | 23.6 | | | 25.1 | | 26.5 | 24.5 | 24.8 | | 26.8 | | 26 | | 22.9 | - | 24.6 | ND | - | - | - | - | 24.7 | - | 25.9 | 35.1 | 20.88 | 35.0 |
| Manganese | | | 0.9 | 0.03 | 1.4 | 1.7 | | 0.02 | 0.04 | | | 0.05 | | ND | ND | ND | | ND | | ND | | 0.02 | - | 0.02 | ND | - | - | - | - | 0.0242 | - | 0.059 | 1.78 | 0.45 | 0.3 |
| Potassium | | | 6.58 | 2.72 | 3.4 | 3.2 | | 2.7 | 2.6 | | | 2.8 | | 3.04 | 2.71 | 2.29 | | 2.4 | | 2.4 | | 2.5 | - | 2.3 | ND | - | - | - | - | 2.71 | - | 2.68 | 7.39 | 4.63 | |
| Sodium | | | 6.21 | 6.85 | 7.6 | 5.7 | | 5.5 | 5.9 | | | 4.9 | | 6 | 4.5 | 4.7 | | 4.9 | | 5.1 | | 4.6 | - | 4.6 | ND | - | - | - | - | 3.81 | - | 4.94 | 6.62 | 5.12 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | ND | | ND | | | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | ND | 0.00 | 0.003 |
| Arsenic | | | ND | | ND | | | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | 0.0626 | 0.00 | 0.025 |
| Barium | | | 0.23 | 0.07 | 0.16 | 0.26 | | 0.06 | 0.06 | | | 0.06 | | 0.055 | 0.047 | | | 0.051 | | | | 0.05 | - | - | 0.061 | - | - | - | - | 0.0513 | - | - | 0.205 | 0.12 | 1.0 |
| Beryllium | | | ND | | ND | | | | ND | | | ND | | ND | | | | ND | | | | 0.0002 | - | - | ND | - | - | - | - | ND | - | - | 0.0014 | 0.00 | |
| Cadmium | | | ND | ND | ND | ND | | ND | ND | | | ND | | ND | ND | ND | | ND | | | | ND | - | ND | ND | - | - | - | - | ND | - | ND | ND | 0.00 | 0.005 |
| Chromium (Total) | | | 0.02 | ND | ND | ND | | ND | ND | | | ND | | ND | ND | | | ND | | | | ND | - | - | 0.001 | - | - | - | - | ND | - | - | 0.0504 | 0.02 | 0.05 |
| Copper | | | 0.02 | | 0.02 | | | | ND | | | ND | | ND | | | | ND | | | | 0.005 | - | - | ND | - | - | - | - | 0.003 | - | - | 0.0533 | 0.01 | 0.2 |
| Lead | | | 0.01 | ND | 0.03 | 0.03 | | ND | ND | | | ND | | ND | ND | ND | | ND | | 0.002 | | ND | - | ND | 0.005 | - | - | - | - | 0.0027 | - | 0.0048 | 0.126 | 0.02 | 0.025 |
| Mercury | | | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | 0.0002 | 0.00 | 0.0007 |
| Nickel | | | ND | | ND | | | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | 0.004 | - | - | - | - | 0.0021 | - | - | 0.0616 | 0.02 | 0.1 |
| Selenium | | | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | ND | 0.00 | 0.01 |
| Silver | | | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND | ND | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | ND | 0.00 | 0.05 |
| Thallium | | | ND | | ND | | | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | 0.005 | 0.00 | 0.0005 |
| Zinc | | | 0.08 | | 0.03 | | | | ND | | | ND | | 0.038 | | | | ND | | | | 0.047 | - | - | 0.069 | - | - | - | - | 0.0084 | - | - | 0.178 | 0.03 | 2.0 |
| **ARAMETER (mg/l) LEACHATE INDICATOI** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | | 340 | 330 | 289 | 268 | | 496 | 175 | 275 | | 250 | | 337 | 298 | 329 | | 382 | 378 | 310 | | 319 | - | 329 | - | - | - | - | - | 294 | - | 311 | - | 242 | |
| Biochemical Oxygen Demand | | | ND | | 6.6 | | | | ND | | | ND | | ND | | | | ND | | ND | | ND | - | - | - | - | - | - | - | 1 | - | ND | - | 2 | |
| Boron | | | ND | | ND | | | | ND | | | 0.03 | | 0.028 | | | | 0.03 | | | | 0.06 | - | - | 0.06 | - | - | - | - | 0.0303 | - | - | 0.0382 | 0 | 1.0 |
| Chemical Oxygen Demand | | | ND | ND | 92.1 | ND | | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | 50.5 | - | 21.6 | - | 30 | |
| Chromium (Hexavalent) | | | ND | | ND | | | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | 0.013 | - | - | - | - | ND | - | - | - | 0 | 0.05 |
| Chloride | | | 3.8 | 3.7 | 3.3 | 3.1 | | 3.2 | 3 | 3.2 | | 2.3 | | 2.2 | 2.79 | 2.5 | | 2.7 | 2.2 | 2.26 | | 3 | - | 2.5 | 2.1 | - | - | - | - | 4.1 | - | 2.4 | - | 4.4 | 250.0 |
| Color (PCU units) | | | 5 | | 160 | | | | 20 | | | 15 | | ND | | | | 50 | | | | 12 | - | - | 17 | - | - | - | - | 5 | - | - | - | 15 | 15.0 |
| Nitrate-Nitrite | | | 0.07 | 0.03 | ND | ND | | ND | ND | ND | | ND | | 0.088 | 0.58 | | | ND | 0.05 | 0.534 | | ND | - | ND | ND | - | - | - | - | 0.09 | - | ND | - | 0 | 10.0 |
| Nitrogen-Ammonia | | | ND | 0.1 | ND | 0.14 | | ND | ND | ND | | ND | | ND | ND | | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | 0.026 | - | 0.022 | - | 0 | 2.0 |
| Phenols | | | ND | | 0.02 | ND | | ND | 0.01 | ND | | ND | | ND | ND | ND | | ND | | ND | | ND | - | ND | ND | - | - | - | - | 0.0041 | - | 0.0056 | - | 0 | 0.001 |
| Sulfate | | | 28 | 31 | 27.3 | 25.3 | | 23.2 | 22.4 | 23.7 | | 20.6 | | 21 | 22.4 | 20.9 | | 20.6 | 19.5 | 21 | | 20.4 | - | 20.65 | 24.5 | - | - | - | - | 25.2 | - | 20.6 | - | 23.0 | 250 |
| Total Organic Carbon (TOC) | | ND | 1.2 | 1.3 | 28.4 | ND | | ND | ND | ND | | ND | | ND | 1.5 | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | ND | - | 13.6 | 2.1 | 5 | |
| Total Dissolved Solids (TDS) | | | 358 | | 377 | 332 | | 359 | 394 | 435 | | 363 | | 365 | 354 | 331 | | 351 | | 420 | | 738 | - | 359 | 381 | - | - | - | - | 349 | - | 381 | - | 293 | 500 |
| Total Hardness | | | 361 | 336 | 395 | 454 | | 325 | 315 | 288 | | 342 | | 360 | 330 | 340 | | 363 | | 350 | | 301 | - | 321 | 342 | - | - | - | - | 310 | - | 330 | 347 | 331 | |
| Total Kjeldahl Nitrogen (TKN) | | | 1.7 | | 2.1 | | | | ND | | | ND | | ND | | | | ND | | ND | | ND | - | - | 0.28 | - | - | - | - | 0.35 | - | ND | - | 1 | |
| Turbidity (NTU units) | | | 750 | 920 | 2390 | 3460 | | 272 | 95 | 202 | | 16.9 | | 16 | 30 | 5 | | - | | 18.02 | | 19.6 | - | 17.8 | 24.2 | 18.8 | 17.4 | - | - | 11.7 | - | 15.8 | 365.6 | 473 | 5.0 |
| Cyanide | | | ND | | ND | | | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | - | - | - | - | - | ND | - | - | - | 0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected.
<DL = Detected below method detection limit.
J = Estimated.
B = Analyte was detected in method blank.

MW-7A
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.37 | 2.24 | 0.94 | 2.0 | 3.0 | ND | 2.0 | | 33.0 | | ND | | 1 | | ND | | 1 | | 0.8 | | | | 1 | 0.8 | 0.5 | 0.6 | 1 | | 0.9 | 1 | 1 | 0.7 | 1.0 | | 2.08 |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Bromodichloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| sec-Butylbenzene | 0.22 | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| tert-Butylbenzene | ND | 0.50 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Chlorobenzene | 0.37 | 0.52 | 0.27 | ND | ND | ND | ND | | 0.7 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Chloroethane | ND | ND | 1.52 | ND | 5.0 | ND | 2.0 | | ND | | ND | | ND | | 0.5 | | ND | | ND | | | | 1 | 0.6 | ND | ND | ND | | ND | ND | 0.9 | ND | ND | | ND |
| Chloroform | ND | 0.29 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | ND | ND | ND | ND | ND | ND | | 43.0 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Dibromochloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | ND | ND | ND | ND | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2-Dichlorobenzene | <DL | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,4-Dichlorobenzene | 0.23 | 0.43 | 0.22 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | 0.5 | ND | ND | | ND |
| 1,1-Dichloroethane | 1.41 | 4.64 | 3.97 | 6.0 | 8.0 | 1.0 | 7.0 | | 3.0 | | 1.0 | | 4 | | 2 | | 3 | | 2 | | | | 4 | 3 | 1 | 3 | ND | | 2 | 3 | 3 | 2 | 3 | | 3.3 |
| 1,2-Dichloroethane | <DL | 0.53 | 0.16 | 6.0 | 1.0 | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | 0.6 | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | 4 | | ND | ND | ND | ND | ND | | ND |
| cis-1,2-Dichloroethene | 0.66 | 1.77 | 1.27 | 2.0 | 3.0 | ND | 2.0 | | 1.0 | | ND | | 2 | | 0.5 | | 1 | | 0.6 | | | | 1 | 1 | 0.5 | 0.9 | ND | | ND | 2 | 2 | 0.9 | 2 | | 3.18 |
| trans-1,2-Dichloroethene | ND | ND | 0.52 | ND | ND | ND | ND | | 0.6 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Ethylbenzene | 0.46 | 0.38 | 0.61 | ND | 1.0 | ND | ND | | 0.7 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | 0.16 | 0.39 | 0.23 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | 0.99 |
| p-Isopropyltoluene | ND | 0.40 | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Methylene chloride | ND | <DL | ND | 1.0 | 2.0 | 1.0 | 2.0 | | 0.5 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | 2 B | | ND | ND | ND | ND | ND | | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | 0.38 | 0.75 | 0.35 | ND | ND | ND | ND | | 3.0 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | 0.6 | | ND | ND | ND | ND | ND | | ND |
| n-Propylbenzene | ND | 0.28 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Styrene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Toluene | ND | 0.18 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | 0.9 | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,4-Trichlorobenzene | ND | ND | 0.29 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | 0.9 | ND | ND | | ND |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Trichloroethene | 0.31 | 0.52 | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,4-Trimethylbenzene | 0.36 | ND | ND | ND | ND | ND | 1.0 | | 0.6 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,3,5-Trimethylbenzene | 0.23 | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | 0.8 | | ND | | | | 1 | ND | ND | ND | ND | | ND | ND | 1 | ND | 0.8 | | ND |
| o-Xylene | 0.19 | <DL | <DL | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| p-Xylene & m-Xylene | | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |

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HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 11.2 | | | | 30.4 | | | | 0.21 | | | | 51.8 | | | | 14.4 | | | | | | | 14.9 | | 3.74 | | | | 0.21 | | | | | |
| Calcium | 32.7 | 55.4 | 41.4 | 50.7 | 57.6 | 30.8 | 53.1 | 45.0 | 47.3 | 59.7 | 26.5 | 42.1 | 47.5 | 38.5 | 31.3 | 47.6 | 41.8 | 36.4 | 39.5 | 29.5 | | 52.2 | 48.0 | 38.5 | 40.7 | 41 | 46.3 | | 42.6 | 43.1 | 60.7 | | 41.4 | | 53.7 |
| Iron | 50.8 | 79 | 9.9 | 19.2 | 62.6 | 6.19 | 33.6 | 36.7 | 24.0 | 68.7 | 68.3 | 49.3 | 104 | 21.6 | 15.3 | 52.5 | 40.6 | 19.5 | 27.9 | 16.1 | | 15.9 | 22.0 | 32.6 | 19.9 | 7.98 | 20.6 | | 4.9 | 8.38 | 20.2 | | 9.86 | | 10.5 |
| Magnesium | 4.5 | 13.9 | 12.3 | 10.4 | 18.1 | 6.3 | 12.5 | 12.3 | 9.99 | 17.6 | 10.5 | 12.6 | 20.6 | 8.5 | 7.13 | 13.9 | 11.1 | 7.66 | 9.32 | 6.55 | | 10.8 | 10.2 | 10.8 | 8.46 | 9.16 | 9.54 | | 8.8 | 8.55 | 12.3 | | 8.26 | | 11.3 |
| Manganese | 9.75 | 14.2 | 9.53 | 12.1 | 16.4 | 13.4 | 15.2 | 12.6 | 12.5 | 15.1 | 7.8 | 11.4 | 12.5 | 10.4 | 7.73 | 12.1 | 24.4 | 8.64 | 8.99 | 7.20 | | 15.1 | 11.6 | 9.28 | 9.99 | 7.53 | 10.5 | | 9.62 | 9.56 | 14 | | 9.58 | | 14 |
| Potassium | 20.8 | 23.8 | 18.9 | 25.8 | 36.3 | 14.3 | 21.5 | 21.6 | 27.0 | 29.6 | 17.8 | 26.8 | 33.4 | 17.4 | 13.2 | 27.7 | 7 | 17.7 | 16.3 | 20.5 | | 19.3 | 18.8 | 29.8 | 17.3 | 25.4 | 16.1 | | 17.8 | 23 | 19.4 | | 16 | | 22.6 |
| Sodium | 7.2 | 10.2 | 7.2 | 9.1 | 11.9 | 7.2 | 10.6 | 9.2 | 8.97 | 10.2 | 3.5 | 7.92 | 7.92 | 7.73 | 6.01 | 7.5 | ND | 7.59 | 6.07 | 5.16 | | 8.56 | 6.86 | 8.40 | 6.32 | 9.11 | 6.22 | | 6.76 | 7.1 | 9.05 | | 6.49 | | 8.85 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | 0.008 | | | | 0.060 | | | | 0.028 | | | | ND | | | | ND | | | | | | | ND | | ND | | | | ND | | | | | |
| Arsenic | 0.010 | | | | 0.060 | | | | 0.045 | | | | 0.094 | | | | 0.061 | | | | | | | 0.046 | | 0.01 | | | | 0.02 | | | | | |
| Barium | 0.97 | | | | 1.53 | | | | 0.79 | | | | 1.47 | | | | 0.81 | | | | | | | 0.860 | | 0.78 | | | | 0.72 | | | | | |
| Beryllium | | | | | ND | | | | ND | | | | 0 | | | | ND | | | | | | | ND | | ND | | | | ND | | | | | |
| Cadmium | | <DL | <DL | | 0.08 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.002 | ND | | ND | 0.010 | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND |
| Chromium (Total) | <DL | | | | 0.08 | | | | 0.01 | | | | 0.15 | | | | 0.07 | | | | | | | 0.051 | | 0.02 | | | | 0.02 | | | | | |
| Copper | <DL | | | | 0.03 | | | | ND | | | | 0.06 | | | | 0.02 | | | | | | | ND | | ND | | | | ND | | | | | |
| Lead | 0.221 | <DL | 0.010 | ND | 0.014 | ND | 0.007 | 0.021 | ND | 0.012 | 0.009 | 0.015 | 0.032 | 0.008 | 0.002 | 0.004 | 0.010 | ND | ND | 0.001 | | ND | 0.004 | 0.014 | 0.002 | 0 | 0 | | 0 | 0 | ND | | ND | | 0.001 |
| Mercury | ND | | | | 0.080 | | | | ND | | | | ND | | | | ND | | | | | | | ND | | ND | | | | ND | | | | | |
| Nickel | ND | | | | 0.08 | | | | 0.02 | | | | 0.18 | | | | 0.01 | | | | | | | 0.070 | | 0.05 | | | | 0.05 | | | | | |
| Selenium | 0.05 | 0.05 | 0.07 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND |
| Silver | 0.29 | <DL | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | | ND |
| Thallium | <DL | | | | 0.12 | | | | ND | | | | ND | | | | ND | | | | | | | ND | | ND | | | | ND | | | | | |
| Zinc | 0.09 | | | | 0.12 | | | | 0.01 | | | | 0.24 | | | | 0.08 | | | | | | | 0.100 | | 0.03 | | | | 0.02 | | | | | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 207 | 562 | 195 | 276 | 296 | 187 | 287.0 | 299.0 | 221 | 206.0 | 119.0 | 197.0 | | 192 | 154 | 210 | 194 | 180 | 172 | 168 | | 251 | 199 | | 191 | 132 | 233 | | 199 | 226 | 265 | 164 | 196 | | 245 |
| Biochemical Oxygen Demand | 25 | | | | 4.0 | | | | 12 | | | | | | | | 11 | | | | | | | | | 14 | | | | ND | | | | | |
| Boron | 0.05 | | | | 0.17 | | | | 0.01 | | | | ND | | | | ND | | | | | | | 0.136 | | 0.1 | | | | 0.1 | | | | | |
| Chemical Oxygen Demand | 39 | 26 | 18 | 17 | ND | 5.0 | 56.0 | ND | 32.2 | 59.7 | 54.8 | 49.0 | 31.9 | 33.8 | 10.9 | 12.3 | 74.5 | 16.4 | 20.6 | 43.4 | | 63.2 | 72.7 | | ND | 53.1 | 18.4 | | 32.9 | 22.5 | 36.6 | ND | 32.5 | | 16 |
| Chromium (Hexavalent) | <DL | | | | 16 | | | | ND | | | | ND | | | | ND | | | | | | | | | ND | | | | ND | | | | | |
| Chloride | 9.4 | 12 | 11.7 | 13 | 16 | 8.0 | 14.0 | 16.0 | 11.5 | 7.1 | 4.73 | 8.41 | | 6.03 | 4.82 | 5.02 | 7.97 | 8.4 | 5.81 | ND | | 7.4 | 6.22 | | 3.73 | 4.8 | 4.37 | | 5.46 | 6.97 | 6.88 | | 3.85 | | 6.19 |
| Color (PCU units) | 40 | | | | ND | | | | 125 | | | | | | | | 10 | | | | | | | | | 30 | | | | 200 | | | | | |
| Nitrate-Nitrite | <DL | <DL | <DL | ND | 3.5 | ND | ND | 0.1 | 1.74 | 0.7 | ND | 1.35 | ND | 0.31 | ND | ND | ND | 0.09 | ND | 0.275 | | ND | ND | | ND | 1.41 | ND | | ND | ND | ND | | ND | | ND |
| Nitrogen-Ammonia | 3.3 | 1.1 | 0.6 | 0.2 | 3.5 | 1.1 | 2.7 | 9.9 | 3.23 | 0.9 | 1.52 | 2.0 | 0.57 | 2.2 | 1.83 | 2.41 | 2.96 | 2.23 | 1.84 | ND | | 2.02 | 1.69 | | 1.05 | 1.36 | 2.15 | | 1.45 | 2.44 | 1.91 | 1.83 | 1.92 | | 2.26 |
| Phenols | <DL | 0.049 | ND | ND | 0.030 | ND | ND | ND | 0.015 | ND | 0.006 | 0.016 | 0.012 | ND | 0.017 | ND | 0.004 | ND | ND | 0.015 | | 0.006 | 0.004 | | 0.006 | ND | ND | | 0.02 | 0.01 | 0.01 | | 0.02 | | 0.0147 |
| Sulfate | 23 | <DL | 8.6 | 15 | 12 | 38.0 | 10.0 | ND | 19.0 | 24.0 | 13.0 | 27.0 | | 18 | 17 | 16 | 15 | 16 | 15 | 24 | | 17 | 15 | | 14 | 16 | 12 | | 30 | 14 | 11 | | 20 | | 8.74 |
| Total Organic Carbon (TOC) | 12 | 16 | 7.8 | 11 | 12 | 3.0 | 9.0 | 28.0 | 25.4 | 12.3 | 5.5 | 9.2 | 36 | 10.8 | 5.7 | 6.8 | 7 | 6.2 | 8.6 | 7.8 | | 9.8 | 8.8 | | 4.8 | 6.1 | 5.3 | | 4.7 | 7 | 6.9 | 4.4 | ND | | 6.5 |
| Total Dissolved Solids (TDS) | 276 | 266 | 237 | 304 | 369 | 291.0 | 305.0 | 448.0 | 279.0 | 203.0 | 142.0 | 272.0 | | 234 | 181 | 192 | 274 | 214 | 196 | 216 | | 280 | 212 | | 205 | 215 | 227 | | 227 | 257 | 327 | | 228 | | 303 |
| Total Hardness | 100 | 195 | 154 | 169 | 219 | 103.0 | 183.0 | 163.0 | 226.0 | 157.0 | 231.0 | 177.0 | | 188 | 169 | 169 | 274 | 122 | 137 | 101 | | 175 | 162 | | 136 | 140 | 155 | | 146 | 143 | 202 | | 137 | | 181 |
| Total Kjeldahl Nitrogen (TKN) | 4.6 | | | | 4.6 | | | | 3.67 | | | | 4.12 | | | | 11.3 | | | | | | | | | ND | | | | 15.4 | | | | | |
| Turbidity (NTU units) | 20 | 400 | 803 | 810 | 1850 | 9.0 | 123.0 | 302.0 | 145.0 | 250.0 | 725.0 | 130.0 | | 220 | 56 | 56 | 100 | 30 | 110 | 195 | | 120 | 140 | | 58 | 11 | 60 | | 30 | 0.95 | 44 | | 27 | | 16 |
| Cyanide | 0.13 | | | | ND | | | | ND | | | | ND | | | | ND | | | | | | | | | ND | | | | ND | | | | | |

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ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | ND | 2.3 | 2.8 | 2.8 | | 1.9 | 3.2 | ND | ND | ND | ND | ND | ND | ND | | 1.4 | - | ND | ND | ND | ND | ND | - | ND | ND | 1.7 | ND | 0.64 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Benzene | ND | 1.0 | 1.3 | 0.7 | 0.84 | ND | 1.0 | 1.1 | 1.1 | 0.75 | | 0.8 | 0.3 | 0.35 | 0.8 | 0.35 | ND | 0.83 | ND | ND | | 0.74 | - | ND | 1.1 | 0.37 | ND | ND | - | ND | ND | 1.3 | ND | 1.30 | 1.0 |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromoform | | | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 50.0 |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| tert-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 60.0 |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | ND | ND | ND | ND | 0.36 | ND | ND | ND | 0.33 | 0.26 | | 0.29 | ND | ND | 0.37 | ND | ND | ND | ND | ND | | 0.31 | - | ND | 0.56 | ND | ND | ND | - | ND | ND | ND | ND | 0.08 | 5.0 |
| Chloroethane | ND | ND | ND | ND | 0.38 | ND | 0.44 | 0.58 | 0.56 | 0.31 | | 0.32 | ND | ND | 0.25 | ND | ND | ND | ND | ND | | 0.26 | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.27 | 5.0 |
| Chloroform | | | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.01 | 7.0 |
| Chloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.78 | 5.0 |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 3.0 |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 3.0 |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | 0.55 | ND | ND | ND | 0.34 | 0.38 | | 0.4 | 0.28 | 0.34 | 0.57 | 0.24 | ND | ND | ND | ND | | 0.48 | - | ND | 0.71 | 0.44 | ND | ND | - | ND | ND | ND | ND | 0.10 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | ND | ND | ND | ND | 0.38 | ND | 0.37 | 0.78 | 2.1 | 0.9 | | 0.47 | ND | ND | 0.31 | 0.25 | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | 9.7 | - | 1.4 | - | 0.31 | 5.0 |
| 1,1-Dichloroethane | 0.82 | 2.1 | 2.3 | 1.5 | 1.4 | 0.52 | 1.8 | 2.1 | 1.8 | 1.4 | | 1.4 | 0.8 | 0.65 | 1.3 | 0.75 | ND | 1.4 | 0.73 | ND | | 0.96 | - | ND | 1.5 | 0.41 | ND | ND | - | ND | ND | 1.2 | ND | 1.84 | 5.0 |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.15 | 0.6 |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.07 | 5.0 |
| cis-1,2-Dichloroethene | ND | 2 | 2.4 | 1.3 | 1.6 | 0.4 | 2.1 | 2.5 | 2.5 | 1.6 | | 1.9 | 0.84 | 0.79 | 1.8 | 0.86 | ND | 1.9 | ND | ND | | 1.8 | - | ND | 2.6 | 0.79 | ND | ND | - | ND | ND | 3 | ND | 1.11 | 5.0 |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | 0.34 | ND | | ND | ND | ND | 0.23 | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.03 | 5.0 |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 0.4 |
| Ethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.06 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.03 | 5.0 |
| p-Isopropyltoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.12 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | |
| Naphthalene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.09 | 10.0 |
| n-Propylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| Styrene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Toluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.02 | 5.0 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.02 | 5.0 |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 1.0 |
| Trichloroethene | ND | ND | 0.6 | ND | 0.41 | ND | 0.35 | 0.43 | 0.49 | 0.41 | | 0.37 | ND | ND | 0.4 | ND | ND | ND | ND | ND | | 0.43 | - | ND | 0.57 | 0.28 | ND | ND | - | ND | ND | ND | ND | 0.10 | 5.0 |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.04 | 5.0 |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | |
| Vinyl chloride | ND | 0.5 | 1.5 | 0.7 | 0.74 | ND | 0.74 | 1.4 | 1.5 | 0.79 | | 0.81 | ND | 0.29 | 0.49 | 0.28 | ND | 0.75 | ND | ND | | 0.7 | - | ND | 0.86 | ND | ND | ND | - | ND | ND | ND | ND | 0.28 | 2.0 |
| o-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |
| p-Xylene & m-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | ND | ND | ND | ND | 0.00 | 5.0 |

MW-7A
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | 0.14 | | 1.1 | | ND | | ND | | | ND | | 0.251 | | | | ND | | | | 0.04 | - | - | ND | ND | - | ND | - | 0.03 | 0.853 | - | 0.104 | 4.62 | |
| Calcium | | 48.6 | 43.7 | 34.8 | 34.8 | 26.3 | 45.3 | 52.4 | 55.9 | 36.3 | | 46 | | 33.5 | 44 | 32.5 | | 53.5 | 94.2 | 60 | | 40.8 | - | 54.6 | 53.4 | 25.3 | 70.9 | 42.3 | - | 58.2 | 30.7 | 57.8 | 48.2 | 43.84 | |
| Iron | | 27 | 16.4 | 16.6 | 17.2 | 6.8 | 1.1 | 20.8 | 25.7 | 21.8 | | 3.8 | | 10 | 16.8 | 8.98 | | 7.8 | 0.12 | 28 | | 8.15 | - | 10.1 | 20.2 | 11.8 | 4.68 | 18.4 | - | 11.9 | 2.31 | 32.8 | 25.2 | 22.93 | 0.3 |
| Magnesium | | 10.2 | 8.23 | 6.52 | 6.8 | 5.1 | 9.1 | 10.5 | 11.3 | 7.5 | | 9.4 | | 6.67 | 8.78 | 6.5 | | 10.9 | 15.3 | 12 | | 8.8 | - | 11.7 | 11.1 | 5.2 | 12.6 | 7.48 | - | 11.7 | 6.07 | 11.6 | 9.51 | 9.74 | 35.0 |
| Manganese | | 11.7 | 9.91 | 8.31 | 8.9 | 6 | 7.2 | 12.8 | 14.3 | 9.6 | | 13.5 | | 8.55 | 11.3 | 7.84 | | 13.7 | 2 | 16 | | 15.7 | - | 16.1 | 16.3 | 6.89 | 9.5 | 10.7 | - | 16.4 | 2.16 | 11.6 | 12.7 | 10.89 | 0.3 |
| Potassium | | 18.3 | 20.3 | 15.7 | 21.8 | 14.1 | 23.9 | 19.7 | 23.8 | 18 | | 20.6 | | 19.1 | 22 | 15.7 | | 18.4 | 1.8 | 18 | | 19 | - | 19.8 | 16.6 | 11.6 | 13.3 | 17 | - | 21.6 | 21.6 | 18.1 | 17.9 | 19.16 | |
| Sodium | | 6.68 | 8.28 | 5.35 | 5.9 | 3.6 | 6.5 | 5.3 | 5.9 | 3.9 | | 5.1 | | 4.4 | 4.6 | 3.8 | | 5 | 6.4 | 5.3 | | 4.3 | - | 4.7 | 4.8 | 2.6 | 5.9 | ND | - | 4.71 | 4.74 | 4.28 | 4.42 | 6.12 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | ND | | ND | | ND | | ND | | | ND | | ND | | | | ND | | | | 0 | - | - | ND | ND | - | ND | - | ND | ND | - | ND | 0.00 | 0.003 |
| Arsenic | | | ND | | 0.04 | | ND | | 0.043 | | | ND | | 0.016 | | | | ND | | | | 0.007 | - | - | 0.026 | 0.026 | - | 0.026 | - | 0.01 | 0.01 | - | 0.0413 | 0.02 | 0.025 |
| Barium | | | 0.61 | | 0.5 | | 0.59 | | 0.76 | | | 0.65 | | 0.45 | | | | 0.65 | | | | 0.661 | - | - | 0.681 | 0.36 | - | 0.499 | - | 0.76 | 0.614 | - | 0.617 | 0.58 | 1.0 |
| Beryllium | | | ND | | ND | | ND | | ND | | | ND | | ND | | | | ND | | | | 2E-04 | - | - | ND | ND | - | ND | - | ND | ND | - | ND | 0.00 | |
| Cadmium | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | 8E-05 | ND | ND | ND | 0.00 | 0.005 |
| Chromium (Total) | | | ND | | 0.01 | | ND | | ND | | | ND | | ND | | | | ND | | | | 0.003 | - | - | 0.003 | 0.001 | - | 0.011 | - | 0.006 | ND | - | ND | 0.02 | 0.05 |
| Copper | | | ND | | ND | | ND | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | ND | ND | - | ND | - | 0.003 | ND | - | ND | 0.00 | 0.2 |
| Lead | | 0.005 | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | ND | ND | | ND | ND | 0.001 | | 0.002 | - | ND | 0.002 | ND | ND | 0.003 | - | 0.003 | 0.003 | 0.0025 | 0.0021 | 0.01 | 0.025 |
| Mercury | | | ND | | ND | | ND | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | ND | ND | - | ND | - | ND | 2E-04 | - | 0.0001 | 0.00 | 0.0007 |
| Nickel | | | ND | | ND | | ND | | ND | | | ND | | ND | | | | ND | | | | 0.012 | - | - | 0.011 | 0.005 | - | ND | - | 0.013 | 0.005 | - | 0.0048 | 0.02 | 0.1 |
| Selenium | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | ND | | | ND | | | | 0.007 | - | - | 0.006 | 0.008 | - | ND | - | ND | ND | - | ND | 0.00 | 0.01 |
| Silver | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | ND | | | ND | | | | ND | - | - | 0.003 | 0.002 | - | ND | - | ND | ND | - | ND | 0.01 | 0.05 |
| Thallium | | | ND | | ND | | ND | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | ND | ND | - | 0.014 | - | ND | ND | - | 0.0145 | 0.01 | 0.0005 |
| Zinc | | | ND | | ND | | ND | | 0.039 | | | 0.02 | | 0.032 | | | | 0.038 | | | | 0.063 | - | - | 0.036 | 0.015 | - | ND | - | 0.01 | 0.008 | - | 0.0078 | 0.03 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | 238 | 225 | 180 | 144 | 101 | 203 | 218 | 263 | 96.7 | | 121 | | 145 | 188 | 128 | | 252 | 328 | 240 | | 209 | - | 250 | 265 | 120 | 160 | 193 | - | 287 | 243 | 206 | 249 | 204.8 | |
| Biochemical Oxygen Demand | | | 8 | | ND | | ND | | 2.8 | | | 4.4 | | 3.2 | | | | 5.7 | | 12 | | 5 | - | - | 10.4 | 2.1 | 4.9 | 6 | - | 7.3 | ND | 8.5 | 8.3 | 5.7 | |
| Boron | | | ND | | 0.07 | | 0.08 | | 0.073 | | | 0.05 | | 0.057 | | | | 0.057 | | | | 0.08 | - | - | 0.06 | 0.07 | - | ND | - | 0.061 | 0.082 | - | 0.0865 | 0.0 | 1.0 |
| Chemical Oxygen Demand | | 18.1 | 13 | 13 | 26.2 | ND | 18.8 | 17.9 | 20.1 | 16.6 | | 19.2 | | ND | 19.9 | 13.9 | | ND | 10.5 | 24 | | 14.8 | - | 18.1 | 20.8 | 10.3 | 19.1 | - | - | 50.5 | 111 | 54.3 | 50.2 | 25.9 | |
| Chromium (Hexavalent) | | | ND | | ND | | ND | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | ND | ND | - | - | - | ND | - | - | ND | 0.6 | 0.05 |
| Chloride | | 4.17 | 4.6 | 3.7 | 2.7 | 1.4 | 5 | 3.5 | 3.8 | 3.3 | | 2.7 | | 2 | 2.39 | 1.83 | | 4.3 | 9.1 | 4.26 | | 2.9 | - | 3.1 | 3 | ND | 2.8 | 2.28 | - | 5 | 4.6 | 3.5 | 4.6 | 5.5 | 250.0 |
| Color (PCU units) | | | 20 | | 50 | | 100 | | 250 | | | 25 | | 60 | | | | 200 | | | | 130 | - | - | 280 | 120 | - | 10 | - | 15 | - | - | 75 | 66.9 | 15.0 |
| Nitrate-Nitrite | | ND | 0.03 | 0.03 | ND | 0.47 | ND | ND | ND | ND | | ND | | ND | ND | | | ND | ND | ND | | ND | - | ND | ND | ND | ND | ND | - | 0.044 | 0.58 | 0.073 | 0.07 | 0.2 | 10.0 |
| Nitrogen-Ammonia | | 2.21 | 2.8 | 2.1 | 1.1 | 0.91 | 1.7 | 1.2 | 1.3 | 1.6 | | 1.5 | | 1.54 | 1.72 | | | 1.3 | ND | 2.38 | | 1.49 | - | 1.3 | 2.11 | 1.72 | 1.86 | 2.22 | - | 1.8 | 1.6 | 2.1 | 1.2 | 1.8 | 2.0 |
| Phenols | | 0.0116 | 0.002 | ND | ND | ND | ND | ND | 0.007 | ND | | ND | | ND | ND | ND | | ND | ND | ND | | ND | - | 0.005 | 0.011 | ND | ND | 0.006 | - | 0.007 | 0.014 | 0.0146 | 0.0095 | 0.0 | 0.001 |
| Sulfate | | 8.71 | 12 | 11 | 12 | 12.8 | 11 | 8.8 | 6.2 | 10 | | 8.5 | | 12 | 9.37 | 11.5 | | 8 | 6.8 | ND | | 6.9 | - | 6.6 | 5.9 | 7.7 | 7.7 | 6.37 | - | 5.9 | 5.2 | 4.6 | 24.6 | 12.3 | 250 |
| Total Organic Carbon (TOC) | 3.6 | 4.2 | 6.1 | 4 | 7.1 | 1.5 | 4.6 | 5 | 5.4 | 5.5 | | 4.4 | 11.9 | 3.7 | 4.2 | 1.7 | | 4.8 | ND | 7 | | 5.4 | - | 6.3 | 7.2 | 4.6 | 5.4 | 4.8 | - | 7 | 5.5 | 18.9 | 5.7 | 7.5 | |
| Total Dissolved Solids (TDS) | | 283 | 255 | 208 | 213 | 107 | 248 | 336 | 231 | 351 | | 244 | | 184 | 221 | 178 | | 265 | 309 | 350 | | 242 | - | 291 | 293 | 141 | 259 | 207 | - | 272 | 448 | 296 | 246 | 246.6 | 500 |
| Total Hardness | | 163 | 143 | 114 | 115 | 86.7 | 150 | 174 | 186 | 122 | | 154 | | 110 | 150 | 110 | | 179 | 298 | 200 | | 138 | - | 185 | 179 | 84.6 | 235 | 140 | - | 220 | 96 | 200 | 187 | 156.7 | |
| Total Kjeldahl Nitrogen (TKN) | | | 3.6 | | 2.9 | | 2 | | 1.8 | | | 1.7 | | 1.76 | | | | 2.2 | | 2.23 | | 2.1 | - | - | 2.51 | 1.81 | - | 2.27 | - | 2.4 | 6 | 2.7 | 0.43 | 2.9 | |
| Turbidity (NTU units) | | 84 | 64 | 81 | 63.4 | 118 | 44.6 | 40.3 | 87 | 33.2 | | 5.9 | | 23 | 4 | 0 | 308 | 3 | 6.9 | 11 | | 9.6 | - | 12.5 | 13.8 | 15.2 | 21.2 | 15.4 | - | 3 | 41 | 3.5 | 10.5 | 137.3 | 5.0 |
| Cyanide | | | ND | | ND | | ND | | ND | | | ND | | ND | | | | ND | | | | ND | - | - | ND | ND | - | - | - | ND | - | - | ND | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected.
<DL = Detected below method detection limit.
J = Estimated.
B = Analyte was detected in method blank.

MW-7C
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromobenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromochloromethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromodichloromethane | 0.40 | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| sec-Butylbenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| tert-Butylbenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chlorobenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloroethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloroform | 0.91 | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorotoluene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-Chlorotoluene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromochloromethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 1.11 | | | 2.0 | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,3-Dichloropropane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2,2-Dichloropropane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloropropene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cis-1-3-Dichloropropene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ethylbenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| p-Isopropyltoluene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Methylene chloride | 0.75 | | | 2.0 | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Propylbenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Styrene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tetrachloroethene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Toluene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trichloroethene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trichlorofluoromethane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| o-Xylene | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| p-Xylene & m-Xylene | | | | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MW-7C
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 16.8 | | | | 1.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | 139 | 117 | 102 | 109 | 93.8 | 88.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iron | **34.6** | **0.66** | **0.32** | **0.47** | **2.8** | **0.68** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Magnesium | 23.7 | 16.4 | 17.4 | 17 | 15.6 | 14.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | **0.47** | 0.18 | **0.35** | **0.37** | 0.27 | 0.29 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | 5.3 | 1.7 | 3.4 | 1.5 | 2.2 | 1.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | 14.8 | 4 | 4.8 | 5.2 | 4.7 | 4.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barium | 0.21 | | | | 0.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | | ND | <DL | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chromium (Total) | <DL | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | 0.03 | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | **0.06** | ND | 0.01 | ND | ND | 0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury | **0.01** | <DL | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nickel | **0.39** | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | **0.05** | ND | 0.01 | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silver | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thallium | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | 0.08 | | | | 0.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 299 | 300 | 284 | 295 | 315 | 356 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Biochemical Oxygen Demand | <DL | | | | 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boron | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chemical Oxygen Demand | 15 | 20 | <DL | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chromium (Hexavalent) | <DL | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | 42.3 | 40 | 39.1 | 30 | 21.0 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color (PCU units) | 5 | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate-Nitrite | <DL | <DL | <DL | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrogen-Ammonia | <DL | <DL | <DL | 0.2 | 0.2 | 0.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols | **0.002** | ND | ND | ND | **0.01** | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfate | 14 | 22 | 15.4 | 7 | ND | 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | 4.1 | 11 | 4 | 1 | 2.0 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (TDS) | 456 | 418 | 394 | 388 | 413 | 381 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Hardness | 444 | 357 | 326 | 342 | 298 | 279 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Kjeldahl Nitrogen (TKN) | 34 | | | | 0.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Turbidity (NTU units) | **65** | **126** | **83** | **200** | **111** | **33** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyanide | <DL | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MW-7C
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | ND | ND | 5.3 | ND | 3.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.3 | ND | 0.43 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Benzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 1.0 |
| Bromobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 50.0 |
| Bromoform | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| n-Butylbenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| tert-Butylbenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 60.0 |
| Carbon tetrachloride | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chloroethane | | | | | | | ND | 0.27 | ND | 0.36 | ND | 0.41 | ND | ND | ND | 0.23 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 5.0 |
| Chloroform | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.03 | 7.0 |
| Chloromethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Chlorotoluene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 3.0 |
| 1,3-Dichlorobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 3.0 |
| 1,4-Dichlorobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | | | | | | | ND | ND | ND | ND | ND | ND | 0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.01 | 5.0 |
| 1,1-Dichloroethane | | | | | | | 1.5 | 1.4 | 1.4 | 1.5 | 1.2 | 1.2 | 1.2 | 1.1 | 1.2 | 1.1 | 1.1 | 0.72 | 1.5 | ND | ND | 0.66 | ND | ND | 0.79 | 0.89 | ND | ND | ND | ND | ND | ND | 1.1 | ND | 0.79 | 5.0 |
| 1,2-Dichloroethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.6 |
| 1,1-Dichloroethene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| cis-1,2-Dichloroethene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.08 | 5.0 |
| trans-1,2-Dichloroethene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichloropropane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| Ethylbenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| p-Isopropyltoluene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Methylene chloride | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.09 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Naphthalene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 10.0 |
| n-Propylbenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Styrene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Toluene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichlorobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,1,1-Trichloroethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2-Trichloroethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| Trichloroethene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.41 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |
| Trichlorofluoromethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,3,5-Trimethylbenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Vinyl chloride | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.69 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 2.0 |
| o-Xylene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| p-Xylene & m-Xylene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |

MW-7C
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | 0 | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.85 | |
| Calcium | | | | | | | 103.0 | 91.0 | 97.3 | 96.5 | 98.2 | 94.7 | 97.9 | 97.3 | 96.3 | 97 | 100 | 90.9 | 52.3 | 98 | 96 | 84.2 | 94.6 | 91.6 | 92.4 | 102 | 95.8 | 102 | 105 | 96.6 | 96.6 | 105 | 97.8 | 97.55 | |
| Iron | | | | | | | ND | 0.063 | ND | ND | 0.092 | ND | 0.081 | 0.177 | ND | ND | 0.184 | ND | 2.3 | ND | ND | 0.03 | ND | 0.17 | 0.08 | ND | ND | ND | ND | 0.0147 | 0.07 | 0.0643 | 0.147 | 1.30 | 0.3 |
| Magnesium | | | | | | | 16.4 | 14.9 | 15.7 | 15.5 | 15.4 | 14.9 | 15.3 | 15.5 | 15.3 | 15.3 | 15.4 | 14.8 | 10.9 | 16 | 16 | 14 | 15.9 | 15.5 | 16.4 | 16.7 | 15.8 | 15 | 16.9 | 15.4 | 15.3 | 16.7 | 15.7 | 15.78 | 35.0 |
| Manganese | | | | | | | 0.2 | 1.5 | 1.6 | 1.5 | 2.2 | 1.7 | 0.9 | 2.65 | 1.01 | 1.21 | 0.633 | 1.2 | 9.3 | 0.89 | 0.44 | 1.1 | 2.04 | 2.83 | 1.35 | 0.945 | 0.571 | 0.928 | 0.464 | 0.32 | 6.75 | 1.20 | 2.95 | 1.52 | 0.3 |
| Potassium | | | | | | | 1.6 | 1.5 | 1.5 | 1.6 | 1.6 | 1.4 | 1.5 | 1.57 | 1.39 | 1.48 | 1.83 | 1.5 | 24.3 | 1.5 | 1.5 | 1.4 | ND | ND | 1.4 | 1.6 | ND | ND | ND | 2.04 | 2.57 | 1.73 | 1.79 | 2.24 | |
| Sodium | | | | | | | 6.7 | 6.3 | 6.9 | 7.7 | 6.4 | 6.1 | 6.3 | 6.5 | 6.1 | 6 | 6.8 | 6 | 5.9 | 6.6 | ND | 5.8 | 6.4 | 6.5 | 6.3 | 6.4 | 6.9 | 6.62 | 7.44 | 8.48 | 6.53 | 6.74 | 6.24 | 6.32 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.003 |
| Arsenic | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.025 |
| Barium | | | | | | | 0.12 | | 0.1 | | 0.16 | 0.14 | | 0.186 | | | 0.101 | 0.11 | | | ND | 0.104 | - | - | 0.132 | 0.128 | - | ND | ND | 0.0904 | 0.239 | - | 0.14 | 0.10 | 1.0 |
| Beryllium | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.0002 | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | |
| Cadmium | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.005 |
| Chromium (Total) | | | | | | | ND | | ND | | ND | ND | | 0.006 | | | 0.005 | ND | | | ND | 0.0001 | - | - | 0.001 | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.05 |
| Copper | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.003 | - | - | ND | ND | - | ND | ND | 0.0026 | ND | - | ND | 0.00 | 0.2 |
| Lead | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.009 | ND | ND | 0.002 | ND | ND | ND | ND | 0.005 | 0.003 | ND | 0.0039 | ND | 0.0021 | 0.0036 | 0.0025 | ND | 0.00 | 0.025 |
| Mercury | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 0.0001 | - | 0.0001 | 0.00 | 0.0007 |
| Nickel | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | 0.0016 | 0.0015 | - | 0.0011 | 0.02 | 0.1 |
| Selenium | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | 0.003 | 0.003 | - | ND | ND | ND | ND | - | ND | 0.00 | 0.0 |
| Silver | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.05 |
| Thallium | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | 0 | - | ND | ND | - | ND | ND | ND | 0.0052 | - | ND | 0.00 | 0.0005 |
| Zinc | | | | | | | ND | | 0.015 | | 0.028 | 0.011 | | 0.012 | | | 0.034 | ND | | | 0.012 | 0.011 | - | - | 0.011 | ND | - | 0.0276 | ND | 0.0237 | 0.0495 | - | 0.0292 | 0.02 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | | | | | | 282.0 | 484 | 264 | 311 | 401 | 279 | 246 | 294 | 293 | 350 | 307 | 323 | 252 | 270 | 300 | 299 | 320 | 302 | 320 | 321 | 320 | 307 | 310 | 314 | 292 | 286 | 314 | 309.4 | |
| Biochemical Oxygen Demand | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | ND | ND | ND | - | - | ND | ND | ND | ND | ND | 1 | 1 | ND | ND | 0.2 | |
| Boron | | | | | | | ND | | ND | | ND | ND | | ND | | | 0.02 | 0.021 | | | ND | ND | - | - | 0.03 | 0.05 | - | ND | ND | 0.0166 | 0.0187 | - | 0.0136 | 0.0 | 1.0 |
| Chemical Oxygen Demand | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 18.7 | ND | ND | 11.4 | 6.3 | ND | 11.1 | 12.8 | 9.1 | - | ND | 15.1 | 18.2 | 25.7 | 15.5 | 5.4 | |
| Chromium (Hexavalent) | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | 0.0033 | - | - | ND | 0.0 | 0.05 |
| Chloride | | | | | | | 14.7 | 14.3 | 13.2 | 12.2 | 12.3 | 10.5 | 11.9 | 12 | 12 | 10.2 | 9.72 | 10.3 | 4 | 9.18 | 7.69 | 7.9 | 7.6 | 6.8 | 6.3 | 7.7 | 6.1 | 5.82 | 7.1 | 7.5 | 5.7 | 5.4 | 6.3 | 13.5 | 250 |
| Color (PCU units) | | | | | | | 13.0 | | 15.0 | | 50 | 5 | | ND | | | 0 | 17.5 | | | ND | 8 | - | - | 12 | 8 | - | 5 | 5 | 5 | - | - | 15 | 7.4 | 15.0 |
| Nitrate-Nitrite | | | | | | | ND | ND | ND | 0.092 | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.023 | 0.044 | ND | ND | 0.0 | 10.0 |
| Nitrogen-Ammonia | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | 1.5 | ND | ND | ND | ND | ND | ND | 0.059 | ND | ND | ND | 0.028 | 0.038 | 0.03 | 0.089 | 0.1 | 2.0 |
| Phenols | | | | | | | ND | ND | ND | 0.01 | ND | 0.0098 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.252 | ND | ND | 0.0031 | 0.0011 | 0.0034 | ND | 0.0087 | 0.001 |
| Sulfate | | | | | | | 8.0 | 7.3 | 6 | 8 | 8.2 | 5.5 | 6.7 | 6.8 | 6.82 | 7.41 | 6.1 | 7.9 | 7.9 | 6.2 | ND | 6.6 | 6.4 | 7.2 | 6.3 | 7.8 | 7.4 | 6.86 | 8.3 | 8.7 | 6.5 | 6.8 | 9.3 | 8.1 | 250 |
| Total Organic Carbon (TOC) | | | | | | | 1.1 | ND | ND | 2 | 1.1 | 1.3 | 1.6 | ND | 2.3 | ND | 1.4 | 1.3 | 1.8 | ND | ND | 1.4 | 1.5 | 1.3 | 1.4 | 1.4 | 577 | 1.35 | 2.7 | ND | 1.6 | 13.5 | 1.7 | 19.5 | |
| Total Dissolved Solids (TDS) | | | | | | | 341.0 | 344 | 325 | 326 | 299 | 327 | 326 | 319 | 321 | 319 | 259 | 287 | 254 | 340 | 370 | 340 | 329 | 290 | 330 | 308 | 325 | 334 | 338 | 349 | 342 | 354 | 323 | 338.5 | 500 |
| Total Hardness | | | | | | | ND | 288 | 308 | 305 | 308 | 298 | 307 | 310 | 300 | 310 | 310 | 288 | 176 | 310 | 300 | 268 | 302 | 293 | 298 | 324 | 318 | 340 | 310 | 280 | 310 | 340 | 273 | 297.6 | |
| Total Kjeldahl Nitrogen (TKN) | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | ND | ND | ND | - | - | 0.24 | 0.28 | - | 0.13 | ND | 0.21 | 0.15 | ND | 2.8 | 1.7 | |
| Turbidity (NTU units) | | | | | | | 62.2 | 4.2 | 5 | 11.3 | 15.5 | 2.4 | 4.9 | 1 | 0 | 1 | 12 | 1 | 8.2 | 3.4 | 15.3 | 2.2 | 1.8 | 10 | 3.9 | 17.2 | 8.1 | 3.8 | 5.8 | 24.7 | 5.86 | 16.7 | 25.1 | 27.0 | 5.0 |
| Cyanide | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected.
<DL = Detected below method detection limit.
J = Estimated.
B = Analyte was detected in method blank.

MW-8B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.08 | | | 3.0 | 2.0 | | | | 3.0 | | 3.0 | | 4 | | 4 | | 3 | | 4 | | | | 4 | 3 | 3 | 3 | 4 | 1 | 3 | 5 | 4 | 3 | 3 | 1.2 | 3.1 |
| Bromobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromochloromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | | | ND | ND | | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | 5 | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.21 |
| tert-Butylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chlorobenzene | <DL | | | ND | ND | | | | 1.0 | | 1.0 | | 1 | | 2 | | 1 | | ND | | | | 2 | 1 | 1 | 1 | 1 | 0.6 | 1 | 3 | 2 | 1 | 2 | 0.6 | 2.3 |
| Chloroethane | ND | | | ND | ND | | | | ND | | ND | | 1 | | 1 | | 0.6 | | 0.9 | | | | 2 | 1 | 1 | 1 | 1 | 0.6 | ND | 2 | 2 | ND | ND | ND | ND |
| Chloroform | ND | | | ND | ND | | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Chlorotoluene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Chlorotoluene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | | | ND | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | | | ND | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3-Dichlorobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | 2 | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | 1.12 | | | ND | ND | | | | 2.0 | | 1.0 | | 1 | | 2 | | 1 | | 2 | | | | 2 | 1 | 2 | 2 | 1 | 0.6 | 1 | 2 | 2 | 1 | 2 | ND | 1.92 |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | | | 3.0 | 3.0 | | | | 1.0 | | 0.6 | | ND | | ND | | 0.8 | | 0.6 | | | | ND | 0.7 | ND | 0.5 | ND | ND | ND | ND | ND | ND | 0.7 | ND | ND |
| 1,1-Dichloroethane | 2.12 | | | 8.0 | 7.0 | | | | 3.0 | | ND | | 4 | | 3 | | 3 | | 5 | | | | 2 | 4 | 2 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 2 | 3.72 | 2.18 |
| 1,2-Dichloroethane | <DL | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | | | ND | ND | | | | ND | | 3.0 | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | ND | | | 8.0 | 6.0 | | | | 4.0 | | 25.0 | | 9 | | 4 | | 5 | | ND | | | | 4 | 7 | 4 | 8 | 7 | 9 | 6 | 8 | 5 | 5 | 5 | 4.16 | 3.52 |
| trans-1,2-Dichloroethene | 1.68 | | | ND | ND | | | | 0.6 | | 0.7 | | 0.8 | | 0.9 | | 0.5 | | ND | | | | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 0.6 | 0.7 | 2 | 1 | 0.7 | 0.9 | 0.84 | ND |
| 1,2-Dichloropropane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3-Dichloropropane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2-Dichloropropane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloropropene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1-3-Dichloropropene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | ND | | | 4.0 | 2.0 | | | | 8.0 | | 2.0 | | 6 | | 11 | | 6 | | 8 | | | | 10 | 2 | 4 | 1 | ND | ND | ND | 3 | 5 | 0.6 | 0.8 | ND | 1.35 |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | ND | | | ND | ND | | | | 0.9 | | ND | | 1 | | 1 | | 0.9 | | ND | | | | 1 | 0.5 | 0.8 | 0.8 | 0.7 | ND | ND | 1 | 0.9 | ND | 0.7 | ND | 1.16 |
| p-Isopropyltoluene | ND | | | ND | ND | | | | ND | | ND | | ND | | 0.6 | | ND | | ND | | | | 0.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | | | 4.0 | ND | | | | ND | | ND | | 0.5* | | ND | | ND | | 3 | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | ND | | | ND | ND | | | | 2.0 | | 1.0 | | ND | | 1 | | ND | | 0.6 | | | | 0.9 B | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| n-Propylbenzene | ND | | | ND | ND | | | | 1.0 | | ND | | 1 | | 1 | | 0.8 | | 1 | | | | 1 | ND | 0.8 | ND | 0.7 | ND | ND | 0.8 | 0.9 | ND | ND | ND | 1.13 |
| Styrene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | ND | | | ND | ND | | | | ND | | 3.0 | | ND | | ND | | ND | | 1 | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | ND | | | ND | ND | | | | 0.6 | | 0.8 | | ND | | 0.6 | | ND | | ND | | | | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichlorobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trichlorobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 0.36 | | | ND | ND | | | | 0.6 | | 8.0 | | 1 | | 0.8 | | 0.8 | | 0.9 | | | | 0.6 | 0.9 | 0.9 | 1 | 2 | 0.9 | ND | ND | 1 | ND | 1 | 0.94 | 1.15 |
| Trichlorofluoromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 0.12 | | | 1.0 | ND | | | | 0.5 | | ND | | ND | | 1 | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | ND | | | ND | ND | | | | ND | | 19.0 | | ND | | 3 | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | 0.9 | ND | ND | ND | ND | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | | | 8.0 | 10 | | | | 4.0 | | 19.0 | | 11 | | 7 | | ND | | 6 | | | | 4 | 8 | 6 | 8 | 10 | 8 | 7 | 12 | 8 | 5 | 6 | ND | ND |
| o-Xylene | ND | | | | ND | | | | ND | | ND | | ND | | 0.8 | | ND | | ND | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Xylene & m-Xylene | | | | ND | ND | | | | 1.5 | | 1.7 | | ND | | 2 | | 5 | | ND | | | | 0.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-8B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 1.5 | | | | 0.5 | | | | 1.03 | | | | 1.59 | | | | 0.47 | | | | 3.7 | | | 0.095 | | 4.4 | | 0.18 | | 0.09 | | 0.23 | | 0.39 | |
| Calcium | 75.4 | 81.2 | 67.7 | 86.8 | 65.7 | 55.7 | 69.6 | 67.0 | 70.8 | 77 | 74.8 | 69.9 | 69.4 | 73.2 | 75.5 | 74.8 | 69.5 | 67.2 | 64.9 | 64.2 | 80.3 | 76.4 | 88.5 | 66.8 | 69.9 | 64.6 | 72.4 | 86.8 | 67.2 | 70.4 | 77.8 | 71.5 | 71.3 | 78.8 | 72.1 |
| Iron | 16.1 | 14.1 | 8.8 | 7.3 | 10.0 | 7.56 | 14.6 | 7.9 | 16 | 20.5 | 17.9 | 13.1 | 23.3 | 13.4 | 18.9 | 18.8 | 13.8 | 11.4 | 10.0 | 9.99 | 64.9 | 15.1 | 20.3 | 8.11 | 11.1 | 14.4 | 11.9 | 57.2 | 5.96 | 31.2 | 15.8 | 11.7 | 10.2 | 46.4 | 9.15 |
| Magnesium | 5.8 | 11.4 | 12.2 | 13.2 | 9.9 | 8.5 | 10.8 | 11.0 | 11.5 | 13.3 | 11.9 | 11.1 | 11.1 | 11.4 | 12.9 | 12.2 | 10.6 | 10.3 | 9.8 | 10.2 | 12.5 | 11.9 | 14.0 | 10.3 | 11.2 | 10.8 | 11.1 | 11.6 | 10.4 | 10.9 | 12.3 | 11.2 | 11 | 11.5 | 11.2 |
| Manganese | 10.9 | 10.8 | 8.39 | 9.17 | 6.13 | 7.97 | 10 | 9.6 | 10.6 | 10.5 | 10.7 | 9.94 | 10.3 | 9.8 | 11.1 | 11.1 | 9.85 | 8.94 | 8.1 | 8.53 | 8.53 | 11 | 12.3 | 7.95 | 9.37 | 9 | 9.67 | 8.06 | 7.75 | 10.6 | 10.9 | 9.51 | 9.66 | 7.24 | 9.8 |
| Potassium | 3.4 | 2.4 | 3.3 | 2.8 | 2.0 | 2.5 | 3.7 | 3.1 | 4.9 | 4.5 | 3.3 | 2.56 | 3.62 | 3.64 | 4.1 | 3.76 | 3.31 | 3.56 | 2.7 | 2.91 | 2.85 | 4.18 | 3.77 | 2.88 | 3.39 | 4.68 | 3.07 | 2.7 | 2.81 | 4.33 | 3.87 | 4.35 | 3.11 | 2.28 | 2.86 |
| Sodium | 8.2 | 6.8 | 6.6 | 13.5 | 8.8 | 8.3 | 9.2 | 10.5 | 11.1 | 10.2 | 7.4 | 7.79 | 9.72 | 9.09 | 8.86 | 9.06 | 8.14 | 8.18 | 6.3 | 9.23 | 9.23 | 8.28 | 7.85 | 9.69 | 7.27 | 9.5 | 6.86 | 10.5 | 7.08 | 7.88 | 7.38 | 8.79 | 6.58 | 8.99 | 6.83 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | 0.01 | | | | ND | | | | 0.04 | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Arsenic | 0.020 | | | | 0.024 | | | | 0.028 | | | | 0.046 | | | | 0.023 | | | | 0.17 | | | 0.018 | | 0.02 | | 0.04 | | 0.07 | | 0.03 | | 0.16 | |
| Barium | 0.04 | | | | 0.35 | | | | 0.23 | | | | 0.27 | | | | 0.21 | | | | 0.712 | | | 0.211 | | 0.22 | | 0.77 | | 0.25 | | 0.2 | | 0.47 | |
| Beryllium | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Cadmium | | ND | <DL | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.002 | 0.004 | 0.01 | ND | ND | ND | 0.005 | ND | ND | 0.01 | ND | ND | ND | ND | ND | ND | ND |
| Chromium (Total) | <DL | | | | ND | | | | 0 | | | | 0.01 | | | | ND | | | | 0.046 | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Copper | <DL | | | | ND | | | | ND | | | | 0.01 | | | | 0.01 | | | | 0.025 | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Lead | 0.583 | ND | 0.009 | ND | ND | ND | 0.060 | ND | 0.005 | 0.026 | 0.008 | 0.004 | 0.033 | 0.005 | 0.013 | 0.004 | 0.004 | ND | ND | ND | 0.036 | ND | 0.012 | 0.010 | 0.004 | 0.02 | 0.01 | 0.03 | 0.003 | 0.01 | 0.01 | 0.01 | 0.002 | 0.02 | 0.002 |
| Mercury | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | | 0.0003 | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Nickel | ND | | | | ND | | | | 0.02 | | | | 0.05 | | | | 0.06 | | | | 0.066 | | | 0.033 | | 0.05 | | 0.03 | | 0.05 | | 0.04 | | 0.04 | |
| Selenium | 0.03 | <DL | 0.07 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Silver | 0.03 | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Thallium | 0.01 | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Zinc | 0.03 | | | | 0.01 | | | | 0.02 | | | | 0.07 | | | | 0.03 | | | | 0.129 | | | ND | | 0.06 | | 0.06 | | 0.03 | | ND | | 0.03 | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 275 | 281 | 258 | 228 | 244 | 251 | 296 | 226.0 | 243 | 262 | 256 | 264 | 246 | 261 | 294 | 271 | 267 | 275 | 258 | 258 | 260 | 258 | 282 | 271 | 278 | 244 | 293 | 261 | 281 | 287 | 283 | 261 | 276 | 350 | 250 |
| Biochemical Oxygen Demand | 28 | | | | ND | | | | 13 | | | | 3 | | | | ND | | | | 17 | | | 4 | | ND | | 16 | | ND | | 5 | | 18 | |
| Boron | <DL | | | | 0.04 | | | | ND | | | | ND | | | | ND | | | | ND | | | 0.072 | | 0.07 | | 0.08 | | 0.11 | | 0.08 | | ND | |
| Chemical Oxygen Demand | 30 | 33 | 20 | ND | 11.0 | 28.0 | 66.0 | ND | 51.9 | 51.3 | 79.6 | 37.1 | 28.5 | 28.1 | 26.4 | 61 | 27 | 13.1 | 16.5 | 69.4 | 57.3 | 37.6 | 36.3 | 16.0 | 18.2 | 16.2 | 28.9 | 205 | 23.1 | 31.1 | 37.3 | 19.2 | 24.4 | 33.3 | ND |
| Chromium (Hexavalent) | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | | |
| Chloride | 18.5 | 18 | 17.6 | 29 | 22.0 | 15.0 | 22.0 | 80.0 | 18.2 | 17.7 | 14.5 | 18 | 19 | 15.7 | 15.8 | 15.2 | 17.1 | 12 | 11.4 | 18.3 | 20.7 | 13.6 | 12.5 | 17.8 | 9.18 | 13.8 | 8.56 | 20 | 12 | 12.9 | 9.57 | 14.2 | 9.45 | | 9.27 |
| Color (PCU units) | 45 | | | | ND | | | | 60.0 | | | | 30 | | | | 35 | | | | 25 | | | 200 | | 30 | | 500 | | 250 | | 45 | | 750 | |
| Nitrate-Nitrite | 2.1 | <DL | <DL | ND | ND | 0.04 | ND | ND | 1.97 | 1.08 | ND | ND | 0.4 | 0.37 | ND | ND | ND | ND | ND | ND | ND | 0.107 | ND | ND | ND | ND | ND | ND | ND | ND | 0.05 | ND | ND | | ND |
| Nitrogen-Ammonia | 2.2 | <DL | 0.7 | ND | 1.3 | 0.6 | 2.3 | 2.7 | 2.58 | 2.3 | 2.64 | 2.31 | 2.17 | 1.8 | 3.13 | 3.31 | 2.91 | 1.52 | 2.04 | 1.75 | 1.5 | 2.74 | 3.26 | 1.42 | 2.49 | 2.19 | 2.72 | 0.9 | 1.46 | 3.08 | 2.77 | 1.85 | 2.09 | 1.05 | 1.61 |
| Phenols | <DL | ND | <DL | ND | 0.020 | ND | ND | ND | 0.035 | 0.029 | 0.046 | 0.042 | 0.038 | ND | 0.050 | 0.037 | 0.043 | 0.025 | 0.019 | 0.071 | 0.067 | 0.031 | 0.046 | 0.023 | 0.030 | 0.02 | 0.02 | 0.01 | 0.03 | 0.04 | 0.03 | 0.02 | 0.03 | 0.01 | 0.02 |
| Sulfate | 16 | 4.9 | 9 | 16 | 9.0 | 17.0 | 6.0 | ND | 30.0 | 21.0 | 7.8 | ND | 13 | 18 | 6.6 | 6.6 | 5 | 9.1 | 9.1 | 9.3 | 12 | 9.4 | 15 | 8.2 | 7.2 | 7.4 | 8.1 | 14 | 13 | 7.8 | 9.2 | 8.2 | 13 | | 9.84 |
| Total Organic Carbon (TOC) | 13 | 14 | 9.3 | 6 | 4.0 | 8.0 | 9.0 | 5.6 | 17.6 | 13.9 | 6.2 | 8 | 12 | 8 | 8.7 | 7.8 | 7 | 7.3 | 10.9 | 5.1 | 5.9 | 10.3 | 9.8 | 6.2 | 9.5 | 1.7 | 6.9 | 21 | 5.7 | 9.4 | 8.7 | 8.2 | 5.5 | 2.9 | 5.8 |
| Total Dissolved Solids (TDS) | 330 | 330 | 303 | 329 | 329 | 269 | 323 | 283 | 282 | 335 | 316 | 359 | 120 | 311 | 334 | 311 | 320 | 307 | 278 | 312 | 301 | 290 | 325 | 287 | 288 | 276 | 277 | 316 | 300 | 289 | 317 | 278 | 306 | 304 | 294 |
| Total Hardness | 212 | 249 | 219 | 271 | 205 | 174 | 219 | 213 | 262 | 270 | 266 | 243 | 267 | 301 | 356 | 271 | 327 | 210 | 202 | 202 | 252 | 240 | 279 | 209 | 221 | 206 | 226 | 265 | 211 | 187 | 245 | 225 | 223 | 244 | 226 |
| Total Kjeldahl Nitrogen (TKN) | 2.8 | | | | 1.6 | | | | 1.91 | | | | 3.56 | | | | 5.88 | | | | 3.7 | | | 3.55 | | 2.48 | | 10.5 | | 9.47 | | 2.36 | | | |
| Turbidity (NTU units) | 46 | 207 | 80 | 12 | 147 | 24 | 30.0 | 8.3 | 38.0 | 46.0 | 26 | 20 | 24 | 40 | 19 | 26 | 28 | 20 | 22 | 14 | 130 | 26 | 27 | 39 | 19 | 12 | 29 | 16 | 7.5 | 210 | 15 | 27 | 11 | 63 | 4.7 |
| Cyanide | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |

MW-8B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | ND | ND | 5.6 | 2.4 | 3.2 | 2 | 4.9 | ND | ND | ND | ND | ND | ND | ND | ND | 1.8 | ND | ND | ND | ND | ND | ND | ND | 1.4 | ND | ND | ND | 0.79 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Benzene | 1.6 | 2 | 2.5 | 3.7 | 3 | 2.2 | 5.5 | 3.2 | 2.3 | 1.9 | 1.1 | 1.8 | 3.7 | 2.3 | 3.4 | 2 | 2.1 | 1.4 | 4.1 | ND | ND | 1.8 | ND | ND | 3.1 | 1.3 | ND | ND | ND | 1.6 | ND | 1.0 | ND | 2.27 | 1.0 |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromoform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.09 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 50.0 |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | ND | ND | ND | ND | ND | ND | 0.49 | 0.36 | ND | ND | ND | ND | 0.35 | ND | 0.33 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.05 | 5.0 |
| tert-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 60.0 |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | 0.84 | 1.5 | 2.4 | 3.8 | 2.8 | 2 | 5.2 | 3.8 | 2.8 | 1.9 | 1.2 | 2.1 | 5.2 | 2.9 | 5 | 2.4 | 2.4 | 1.7 | 6.4 | ND | 3.2 | 3.2 | ND | ND | 6.7 | 2.1 | ND | ND | ND | 2.8 | 8.9 | 1.7 | 6.6 | 2.11 | 5.0 |
| Chloroethane | 1 | 0.96 | ND | ND | 1.3 | 1.1 | 1.4 | 1.1 | 1 | 0.9 | 0.67 | 0.87 | 1.1 | 0.89 | 1 | 0.95 | 0.98 | 0.68 | 0.69 | ND | ND | 0.78 | ND | ND | 0.45 | 0.67 | ND | ND | ND | ND | ND | ND | ND | 0.59 | 5.0 |
| Chloroform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 7.0 |
| Chloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.3 | ND | 0.31 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.41 | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 3.0 |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.04 | 3.0 |
| 1,4-Dichlorobenzene | 0.69 | 0.89 | 1.6 | 2.3 | 1.6 | 1.1 | 2.8 | 1.9 | 1.5 | 0.88 | 0.81 | 0.95 | 2.3 | 1.3 | 2.4 | 1 | 1 | 0.71 | 2.6 | ND | ND | 1.3 | ND | ND | 2.8 | 0.66 | ND | ND | ND | 1.1 | ND | ND | ND | 1.14 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.35 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |
| Dichlorodifluoromethane | ND | ND | ND | ND | 0.74 | 0.52 | 0.76 | 0.61 | ND | 0.44 | 0.49 | 0.43 | 0.87 | 0.46 | 0.38 | 1.4 | 0.64 | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | 9.1 | - | ND | - | 0.50 | 5.0 |
| 1,1-Dichloroethane | 2.4 | 1.9 | 1.6 | 1 | 1.7 | 1.7 | 1.5 | 1.4 | 1.6 | 1.6 | 2 | 2 | 1.8 | 1.4 | 1.4 | ND | 2.7 | 1.4 | 0.76 | ND | ND | 1.1 | ND | ND | 0.47 | 1.1 | ND | ND | ND | 1.1 | ND | 1.6 | ND | 1.95 | 5.0 |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.25 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.6 |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.05 | 5.0 |
| cis-1,2-Dichloroethene | 2.6 | 2.8 | 2.4 | 4 | 3.8 | 5 | 6.4 | 5.2 | 4.4 | 4.3 | 4 | 4.2 | 11 | 7.8 | 10 | 7.3 | 11 | 4.6 | 9.4 | 3.2 | 9 | 6.4 | 11 | 5.4 | 12 | 6.6 | 6.9 | 5.4 | 9.6 | 5.8 | 17.3 | 5.3 | 6.7 | 6.50 | 5.0 |
| trans-1,2-Dichloroethene | ND | ND | ND | 0.8 | 0.58 | 0.5 | 0.86 | 0.42 | 0.4 | 0.37 | 0.3 | 0.34 | 0.68 | 0.37 | 0.52 | 0.4 | 0.45 | ND | ND | ND | ND | ND | ND | ND | ND | 0.34 | ND | ND | ND | ND | ND | ND | ND | 0.41 | 5.0 |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4* |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4* |
| Ethylbenzene | ND | ND | ND | ND | ND | 0.47 | 1.2 | 1 | ND | ND | ND | ND | 0.61 | ND | 0.31 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.42 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | ND | ND | ND | ND | 0.4 | 0.32 | 0.95 | 0.65 | 0.28 | ND | ND | ND | 0.56 | 0.34 | 0.52 | ND | ND | ND | 0.72 | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.29 | 5.0 |
| p-Isopropyltoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.02 | 5.0 |
| Methylene chloride | ND | ND | ND | ND | ND | ND | 0.27 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.13 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Naphthalene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.08 | 10.0** |
| n-Propylbenzene | ND | ND | ND | ND | ND | ND | 0.32 | 0.37 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.20 | 5.0 |
| Styrene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.07 | 5.0 |
| Toluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.13 | 5.0 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| Trichloroethene | ND | 0.52 | ND | 1.7 | 0.93 | 1.8 | 2.2 | 1.2 | 1.2 | 1.2 | 0.85 | 0.83 | 3.6 | 2.1 | 3 | 2 | 2.2 | 1.2 | 2.6 | ND | ND | 1.6 | ND | ND | 4.4 | 1.8 | ND | ND | ND | 1.3 | ND | 1.2 | ND | 1.13 | 5.0 |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.05 | 5.0 |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.42 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Vinyl chloride | 1.9 | 1.6 | 2 | 8.6 | 3.8 | 4.6 | 6.8 | 5.2 | 3.1 | 3.4 | 2.2 | 3 | 11 | 6.2 | 5.9 | 5.1 | 7.5 | 2.7 | 6.2 | ND | 4.9 | 4.4 | 5.5 | ND | 6.2 | 2.6 | ND | ND | ND | 2.8 | 7.3 | 2.4 | ND | 4.98 | 2.0 |
| o-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |
| p-Xylene & m-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.22 | 5.0 |

MW-8B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | ND | | 0.22 | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 0.0473 | - | 0.0416 | 0.41 | |
| Calcium | 65.5 | 65.4 | 65.3 | 62.5 | 69.7 | 80.1 | 77.2 | 73.4 | 74.6 | 75.5 | 73.8 | 81.5 | 79.6 | 78.4 | 72.5 | 76.5 | 86.9 | 80 | 74.1 | 76 | 87 | 69.5 | 78.1 | 72.3 | 69 | 72.5 | 81.2 | 78.7 | 95.8 | 76.8 | 66.6 | 75.7 | 74.4 | 73.84 | |
| Iron | 7.05 | 6.61 | 8.1 | 8.49 | 6.9 | 6.2 | 21 | 9.5 | 7.9 | 7.7 | 0.86 | 6.4 | 12.4 | 9.23 | 9.06 | 5.09 | 5.5 | 4.8 | 11.4 | 4.4 | 6.3 | 3.49 | 7.45 | 3.44 | 11.5 | 3.39 | 4.52 | 4.19 | 3 | 4.17 | 11 | 3.5 | 7.15 | 12.33 | 0.3 |
| Magnesium | 9.83 | 10.3 | 9.54 | 9.24 | 10.4 | 11.6 | 12.5 | 11.6 | 11.5 | 11.4 | 10.4 | 12.2 | 12.2 | 12.2 | 11.2 | 11.6 | 13 | 11.9 | 11.8 | 12 | 14 | 11.1 | 12.6 | 11.4 | 10.8 | 11.6 | 12.1 | 11.5 | 14 | 11.2 | 9.89 | 11 | 10.7 | 11.31 | 35.0 |
| Manganese | 7.43 | 7.62 | 8.05 | 9.91 | 7.9 | 7.9 | 12 | 9.1 | 9 | 8.7 | 6.8 | 7.7 | 9.8 | 8.51 | 9.39 | 7.71 | 7.98 | 7 | 10.8 | 6.9 | 9.5 | 5.73 | 8.77 | 6.28 | 11.7 | 5.9 | 7.74 | 7.05 | 7.26 | 7.02 | 9.06 | 5.32 | 8.25 | 8.88 | 0.3 |
| Potassium | 3.01 | 2.7 | 3.16 | 3.36 | 3.1 | 2.5 | 5.8 | 3.1 | 3.2 | 2.6 | 2.7 | 2.3 | 3.7 | 2.89 | 3.2 | 2.24 | 2.8 | 2.2 | 4.3 | 1.9 | 2.9 | 1.7 | 3.1 | ND | 3.5 | 1.9 | 2.7 | ND | ND | 3.51 | 5.7 | 2.13 | 3.05 | 3.06 | |
| Sodium | 7.18 | 6.69 | 5.48 | 5.67 | 6.5 | 6.4 | 6.8 | 6.6 | 7.1 | 5.9 | 9.5 | 7.1 | 7.8 | 7.1 | 6.3 | 6.2 | 11 | 6.6 | 6.2 | 6.7 | ND | 6.4 | 7 | 5.8 | 4.7 | 6.5 | 7.5 | 6.68 | 10.7 | 7.13 | 4.71 | 6 | 5.1 | 7.60 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.003 |
| Arsenic | 0.02 | | ND | | 0.01 | | 0.03 | | 0.02 | | ND | 0.02 | | 0.021 | | | 0.02 | 0.017 | | | ND | 0.012 | - | - | 0.025 | 0.014 | - | 0.0174 | 0.0114 | 0.0144 | 0.0283 | - | 0.0228 | 0.03 | 0.025 |
| Barium | 0.19 | | 0.17 | | 0.17 | | 0.14 | | 0.14 | | 0.23 | 0.16 | | 0.161 | | | 0.184 | 0.14 | | | ND | 0.137 | - | - | 0.116 | 0.137 | - | ND | ND | 0.124 | 0.111 | - | 0.126 | 0.18 | 1.0 |
| Beryllium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.0002 | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | |
| Cadmium | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.005 |
| Chromium (Total) | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | 0.002 | ND | - | ND | ND | 0.0017 | 0.004 | - | ND | 0.00 | 0.05 |
| Copper | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.2 |
| Lead | 0.004 | 0.01 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.001 | ND | 0.0008 | ND | ND | 0.002 | 0.002 | ND | 0.0064 | ND | 0.0017 | 0.0033 | 0.0041 | 0.0013 | 0.01 | 0.025 |
| Mercury | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 7E-05 | - | 0.0001 | 0.00 | 0.0007 |
| Nickel | 0.04 | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.0006 | - | - | 0.007 | 0.005 | - | ND | ND | 0.0052 | 0.0057 | - | 0.0048 | 0.01 | 0.1 |
| Selenium | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | | ND | ND | - | - | 0.004 | 0.005 | - | ND | ND | ND | ND | - | ND | 0.00 | 0.0 |
| Silver | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | 0.002 | 0.002 | - | ND | ND | ND | ND | - | ND | 0.00 | 0.05 |
| Thallium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | 0.0128 | ND | ND | ND | - | 0.0103 | 0.00 | 0.0005 |
| Zinc | ND | | ND | | ND | | ND | | 0.01 | | ND | 0.02 | | 0.013 | | | 0.01 | 0.015 | | | 0.023 | 0.11 | - | - | 0.002 | 0.009 | - | ND | 0.0209 | ND | 0.021 | - | 0.0099 | 0.02 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 219 | 270 | 250 | 210 | 205 | 225 | 254 | 248 | 269 | 249 | 274 | 178 | 256 | 281 | 247 | 292 | 272 | 296 | 268 | 250 | 280 | 270 | 310 | 270 | 272 | 255 | 270 | 248 | 287 | 266 | 241 | 207 | 278 | 262.00 | |
| Biochemical Oxygen Demand | ND | | 4 | | 15.6 | | ND | | ND | | 2.9 | 2.8 | | 3.9 | | | ND | ND | | ND | ND | 3.6 | - | - | 7 | 3.2 | 2.7 | ND | ND | 1.2 | 3.5 | ND | ND | 4.29 | |
| Boron | 0.08 | | 0.05 | | 0.06 | | 0.1 | | 0.07 | | 0.054 | 0.047 | | 0.059 | | | 0.052 | 0.052 | | | ND | 0.05 | - | - | 0.06 | 0.05 | - | ND | ND | 0.0428 | 0.0676 | - | 0.0565 | 0.04 | 1.0 |
| Chemical Oxygen Demand | 33.6 | 32.1 | 42 | ND | 50.2 | 10.1 | 21.6 | 23.3 | 16.8 | 18.2 | 26.3 | 13.8 | 18.4 | ND | 20.3 | 18.2 | 11.2 | ND | 20.3 | ND | 89 | ND | 16.9 | 7.3 | 9 | ND | 12.8 | - | 19.2 | 23.4 | 39.4 | 27.7 | 46.1 | 28.37 | |
| Chromium (Hexavalent) | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0.00 | 0.05 |
| Chloride | 12.8 | 7.79 | 6.7 | 5.2 | 6 | 5.4 | 9.6 | 5.5 | 5.3 | 5.3 | 19.6 | 6.4 | 7.6 | 7.5 | 4.71 | 4.17 | 23.5 | 4 | 4.4 | 3.34 | 9.9 | 3.3 | 6.4 | 3.1 | 2.8 | 3.2 | 4.3 | 2.71 | 4.1 | 4.7 | 3.6 | 2.8 | 4.9 | 12.08 | 250.0 |
| Color (PCU units) | | | 10 | | 12 | | 18 | | 70 | | 30 | 20 | | 7.5 | | | 0 | 7.5 | | | ND | 170 | - | - | 27 | 38 | - | 5 | 20 | 10 | - | - | 15 | 69.43 | 15.0 |
| Nitrate-Nitrite | 0.13 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.24 | ND | 0.077 | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.68 | 0.032 | 0.062 | ND | ND | 0.11 | 10.0 |
| Nitrogen-Ammonia | 1.87 | 1.45 | 2.4 | 2.7 | 0.81 | 0.83 | 2.6 | 1.1 | 1.1 | 0.96 | 0.87 | 0.99 | 1.9 | 1.9 | 1.54 | 0.797 | 0.812 | 0.73 | 2.8 | 1.08 | ND | 0.804 | 1.3 | 0.595 | 2.46 | 1.03 | 1.23 | 1.22 | 1.1 | 0.86 | 2.4 | 0.62 | 0.99 | 1.67 | 2.0 |
| Phenols | 0.01 | 0.01 | ND | ND | 0.01 | ND | ND | ND | 0.01 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.014 | ND | ND | ND | 0.0163 | ND | 0.0272 | ND | ND | 0.0148 | 0.0078 | 0.0021 | 0.0325 | 0.0096 | 0.0274 | 0.02 | 0.001 |
| Sulfate | 8.76 | 8.22 | 8.2 | 7.6 | 8.8 | 8.4 | 7.7 | 7.3 | 6.9 | 8.8 | 10.6 | 6.2 | 5.1 | 6.9 | 6.24 | 7.91 | 7.69 | 8.8 | 5.6 | ND | ND | 6.9 | 6.8 | 6.7 | 4.8 | 6.1 | 6.9 | 6.36 | 8.5 | 7.9 | 4.2 | 6.6 | 5.7 | 8.64 | 250.0 |
| Total Organic Carbon (TOC) | 2.9 | 2.5 | 10 | 4.4 | 20.8 | 3.6 | 8.2 | 3.5 | 5.6 | 3.5 | 3.8 | 4.0 | 7.4 | 5.4 | 4.4 | 2.2 | 5.3 | 2.8 | 2.6 | ND | ND | 3.2 | 4.0 | 2.9 | 6.2 | 3.8 | 3.5 | 2.59 | 4.6 | 4.8 | 5.9 | 15 | 6.2 | 6.83 | |
| Total Dissolved Solids (TDS) | | 311 | 285 | 268 | 297 | 276 | 311 | 294 | 280 | 271 | 272 | 304 | 330 | 319 | 297 | 314 | 319 | 283 | 299 | 260 | 250 | 292 | 320 | 283 | 274 | 276 | 291 | 269 | 329 | 290 | 248 | 279 | 279 | 295.51 | 500.0 |
| Total Hardness | 204 | 206 | 202 | 194 | 217 | 248 | 244 | 231 | 234 | 235 | 227 | 254 | 249 | 250 | 230 | 240 | 270 | 249 | 234 | 240 | 270 | 219 | 247 | 228 | 217 | 229 | 261 | 212 | 400 | 228 | 250 | 220 | 173 | 238.38 | |
| Total Kjeldahl Nitrogen (TKN) | 1.81 | | 4.5 | | 2.7 | | 3.2 | | 1.5 | | 1.7 | 1.1 | | 2.31 | | | 1.47 | 1.2 | | 0.508 | 1.3 | 0.98 | - | - | ND | 1.14 | - | 1.23 | 0.88 | 1.6 | 3.4 | 0.79 | 2.4 | 2.39 | |
| Turbidity (NTU units) | | 8 | 19 | 9 | 41.2 | 24.4 | 10.7 | 3.6 | 14 | 27.2 | 15.1 | 3.3 | 4.2 | 20 | 16 | 0 | 3 | 6 | 7 | 3.9 | 2.2 | 18.1 | 1.6 | 0 | 7.3 | 18.5 | 9.9 | 2 | 3.6 | 0.3 | 35 | 9.8 | 20.1 | 28.02 | 5.0 |
| Cyanide | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0.00 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected. J = Estimated.
<DL = Detected below method detection limit. B = Analyte was detected in method blank.

MW-9B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | ND | 0.12 | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Bromodichloromethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| sec-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| tert-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Chlorobenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Chloroethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Chloroform | 0.86 | 1.44 | ND | ND | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | ND | ND | 2.0 | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Dibromochloromethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,2-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | 0.6 | | | | 0.6 J | | | | | | | | | | | | ND |
| 1,1-Dichloroethane | 5.73 | 5.65 | 7.73 | 4.0 | 3.0 | 4.0 | 2.0 | | | | | | | | | | 3.0 | | ND | | | | 3.0 | | | | | | | | | | | | 3.05 |
| 1,2-Dichloroethane | 0.17 | 0.24 | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| cis-1,2-Dichloroethene | ND | 1.12 | 0.97 | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| trans-1,2-Dichloroethene | 1.39 | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Ethylbenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| p-Isopropyltoluene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Methylene chloride | 5.95 | 1.55 | 0.43 | 3.0 | 1.0 | 1.0 | 6.0 | | | | | | | | | | ND | | 4.0 | | | | ND | | | | | | | | | | | | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| n-Propylbenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Styrene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Toluene | <DL | <DL | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | 2.0 | | | | | | | | | | | | ND |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | ND | ND | ND | ND | ND | ND | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| o-Xylene | ND | ND | ND | | ND | | | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |
| p-Xylene & m-Xylene | | | ND | ND | ND | | | | | | | | | | | | ND | | ND | | | | ND | | | | | | | | | | | | ND |

MW-9B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 61.8 | | | | 21.6 | | | | | | | | | | | | 35.0 | | | | | | | | | | | | | | | | | | |
| Calcium | 82.6 | 103 | 47 | 49.1 | 51.9 | 41.9 | 37.6 | 79.3 | | | | | | 44.7 | | 48.2 | 55.6 | | | | | | 53.1 | | | | | | | | | | | | |
| Iron | 110 | 90.3 | 0.6 | 72.3 | 40.6 | 25.6 | 37.5 | 36.2 | | | | | | 73.1 | | 68.1 | 77.2 | | | | | | 70.1 | | | | | | | | | | | | |
| Magnesium | 14.4 | 19.5 | 13.3 | 16.3 | 11.9 | 8.6 | 10.2 | 15.3 | | | | | | 16.4 | | 16.2 | 16.9 | | | | | | 16.9 | | | | | | | | | | | | |
| Manganese | 1.24 | 1.48 | 0.66 | 0.95 | 0.7 | 0.33 | 1.07 | 0.48 | | | | | | 0.84 | | 1.03 | 1.6 | | | | | | 1.06 | | | | | | | | | | | | |
| Potassium | 10.5 | 8.7 | 5.8 | 12.8 | 6.9 | 5.7 | 6.1 | 8.1 | | | | | | 11.9 | | 10.5 | 8.9 | | | | | | 9.44 | | | | | | | | | | | | |
| Sodium | 3.4 | 2.2 | 3 | 4.5 | 4.1 | 3.3 | 3.7 | 6.3 | | | | | | 3.7 | | 3.24 | 4.0 | | | | | | 3.51 | | | | | | | | | | | | |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | <DL | | | | ND | | | | | | | | | | | | ND | | | | | | | | | | | | | | | | | | |
| Arsenic | ND | | | | 0.015 | | | | | | | | | | | | 0.028 | | | | | | | | | | | | | | | | | | |
| Barium | 0.21 | | | | 0.12 | | | | | | | | | | | | 0.208 | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | ND | | | | | | | | | | | | 0.002 | | | | | | | | | | | | | | | | | | |
| Cadmium | | ND | 0 | ND | ND | ND | ND | ND | | | | | | ND | | ND | ND | | | | | | 0.013 | | | | | | | | | | | | |
| Chromium (Total) | 0.06 | 0.03 | 0.02 | 0.08 | 0.07 | 0.05 | 0.04 | 0.06 | | | | | | 0.11 | | | 0.076 | | | | | | 0.215 | | | | | | | | | | | | |
| Copper | 0.12 | | | | 0.05 | | | | | | | | | | | | 0.065 | | | | | | | | | | | | | | | | | | |
| Lead | 0.015 | <DL | 0.010 | 0.013 | 0.008 | 0.007 | 0.014 | 0.015 | | | | | | 0.031 | | 0.026 | 0.018 | | | | | | 0.014 | | | | | | | | | | | | |
| Mercury | <DL | | | | ND | | | | | | | | | | | | ND | | | | | | | | | | | | | | | | | | |
| Nickel | 0.82 | | | | 0.07 | | | | | | | | | | | | 0.087 | | | | | | | | | | | | | | | | | | |
| Selenium | 0.08 | 0.03 | 0.01 | ND | ND | ND | ND | ND | | | | | | 0 | | ND | ND | | | | | | ND | | | | | | | | | | | | |
| Silver | ND | | | | ND | | | | | | | | | | | | ND | | | | | | | | | | | | | | | | | | |
| Thallium | ND | | | | ND | | | | | | | | | | | | ND | | | | | | | | | | | | | | | | | | |
| Zinc | 0.32 | | | | 0.16 | | | | | | | | | | | | 0.28 | | | | | | | | | | | | | | | | | | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | | 402 | 140 | | 158 | 143 | 147.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Biochemical Oxygen Demand | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boron | | | | | 0.06 | | | | | | | | | | | | ND | | | | | | | | | | | | | | | | | | |
| Chemical Oxygen Demand | | <DL | <DL | ND | | ND | ND | ND | | | | | | 78.3 | | | | | | | | | | | | | | | | | | | | | |
| Chromium (Hexavalent) | <DL | | | | ND | | | | | | | | | | | | ND | | | | | | | | | | | | | | | | | | |
| Chloride | | | 11 | 12 | | 10.0 | 15.0 | 8.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color (PCU units) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate-Nitrite | | <DL | <DL | 0.27 | | ND | ND | 0.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrogen-Ammonia | | <DL | <DL | 0.4 | 0.2 | ND | 0.1 | 0.2 | | | | | | ND | | | | | | | | | | | | | | | | | | | | | |
| Phenols | | ND | 0.078 | ND | | ND | ND | ND | | | | | | 0.031 | | | | | | | | | | | | | | | | | | | | | |
| Sulfate | | | 22.3 | 11 | | 42.0 | 15.0 | 7.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | | 14 | 2 | 3 | 2.0 | 2.0 | 1.0 | 5.2 | | | | | | 2.8 | | | | | | | | | | | | | | | | | | | | | 32.7 |
| Total Dissolved Solids (TDS) | | | 180 | 858 | | 140 | 163.0 | 176.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Hardness | 265 | 340 | 172 | | | 156 | 135.0 | 261.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Kjeldahl Nitrogen (TKN) | | | | | 1.3 | | | | | | | | | | | | 3.3 | | | | | | | | | | | | | | | | | | |
| Turbidity (NTU units) | | | 182 | 1110 | | 130 | 4.0 | 1840 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyanide | | | | | | | | | | | | | | | | | ND | | | | | | | | | | | | | | | | | | |

MW-9B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | 2.8 | ND | 3.6 | 2.6 | ND | 1.8 | ND | ND | ND | ND | ND | ND | ND | 1.5 | - | ND | - | ND | ND | ND | ND | ND | ND | 1.5 | ND | 0.55 | 50.0 |
| Acrylonitrile | | | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Benzene | | ND | | ND | | | | | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.03 | 1.0 |
| Bromobenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromoform | | | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Butanone | | | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| n-Butylbenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| tert-Butylbenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Carbon disulfide | | | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 60.0 |
| Carbon tetrachloride | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | | ND | | ND | | | | | 0.39 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |
| Chloroethane | | ND | | ND | | | | | 0.57 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 5.0 |
| Chloroform | | | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.07 | 7.0 |
| Chloromethane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.05 | 5.0 |
| 2-Chlorotoluene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 3.0 |
| 1,3-Dichlorobenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | ND | - | 0.00 | 3.0 |
| 1,4-Dichlorobenzene | | ND | | ND | | | | | 0.48 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | | ND | | ND | | | | | 1.9 | ND | ND | ND | 0.21 | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | ND | - | 0.07 | 5.0 |
| 1,1-Dichloroethane | | 2.1 | | 2.8 | | | | | 1.9 | 2.2 | 2.3 | 2.2 | 2.7 | 1.6 | 2.3 | 0.97 | 1.2 | 1.7 | 1.3 | ND | ND | 1.7 | - | ND | - | 1.5 | ND | ND | ND | ND | ND | 2.8 | ND | 1.91 | 5.0 |
| 1,2-Dichloroethane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 0.6 |
| 1,1-Dichloroethene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| cis-1,2-Dichloroethene | | ND | | ND | | | | | 2.7 | 0.41 | 0.38 | 0.38 | 0.41 | ND | 0.43 | ND | ND | ND | ND | ND | ND | 0.37 | - | ND | - | 0.43 | ND | ND | ND | ND | ND | ND | ND | 0.20 | 5.0 |
| trans-1,2-Dichloroethene | | ND | | ND | | | | | 0.37 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.05 | 5.0 |
| 1,2-Dichloropropane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| Ethylbenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Hexanone | | | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| p-Isopropyltoluene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Methylene chloride | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | 0.75 | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.62 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Naphthalene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 10.0 |
| n-Propylbenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Styrene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Toluene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.05 | 5.0 |
| 1,2,3-Trichlorobenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,1,1-Trichloroethane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2-Trichloroethane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| Trichloroethene | | ND | | ND | | | | | 0.57 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 5.0 |
| Trichlorofluoromethane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,3,5-Trimethylbenzene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Vinyl acetate | | | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Vinyl chloride | | ND | | ND | | | | | 1.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 2.0 |
| o-Xylene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| p-Xylene & m-Xylene | | ND | | ND | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |

MW-9B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | | | | | | | 2.3 | | | ND | | 0.238 | | | ND | 0.59 | | | 0.12 | ND | - | - | - | ND | - | ND | - | 0.056 | - | - | 0.43 | 5.82 | |
| Calcium | | | | | | | | | 60.7 | 52.6 | | 68 | 72.1 | 62 | 61.9 | 60.5 | 54.9 | 65.4 | 61.8 | 57 | 63 | 54.7 | - | 61.2 | - | 63.8 | 75.6 | 70.7 | - | 75.6 | - | - | 76.4 | 53.11 | |
| Iron | | | | | | | | | 2.8 | 0.31 | | 0.28 | 2 | 1.11 | 0.451 | 0.46 | 0.472 | 1.2 | 0.86 | 0.33 | 1.3 | 0.3 | - | 1.44 | - | 0.65 | 1.22 | 0.462 | - | 0.135 | - | - | 1.78 | 19.98 | 0.3 |
| Magnesium | | | | | | | | | 8.2 | 6.9 | | 8.5 | 9.1 | 8.44 | 8.26 | 8.98 | 8.74 | 9.5 | 9.8 | 9.2 | 10 | 8.8 | - | 9.9 | - | 9.5 | 10.1 | 9.52 | - | 10.6 | - | - | 10.1 | 9.72 | 35.0 |
| Manganese | | | | | | | | | 0.14 | 0.032 | | 0.05 | 0.03 | ND | ND | 0.07 | 0.035 | 0.12 | 0.055 | 0.029 | 0.053 | 0.021 | - | 0.066 | - | 0.969 | 0.428 | 0.779 | - | 0.118 | - | - | 0.658 | 0.42 | 0.3 |
| Potassium | | | | | | | | | 1.9 | 1 | | 1.4 | 5 | 1.61 | 1.18 | 1.17 | 1.7 | 1.8 | 1.7 | 1 | 2.3 | 1.2 | - | 2.1 | - | 1.4 | 3.3 | ND | - | 2.04 | - | - | 1.83 | 3.86 | |
| Sodium | | | | | | | | | 4.2 | 3.5 | | 4.9 | 5.7 | 4.8 | 4.3 | 4.1 | 4.7 | 4.6 | 4.7 | 4.1 | ND | 4.1 | - | 4.3 | - | 4.4 | 5.5 | ND | - | 5.89 | - | - | 5.33 | 3.45 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | | | ND | | | ND | | ND | | | ND | ND | | | ND | ND | - | - | - | ND | - | ND | - | ND | - | - | ND | 0.00 | 0.003 |
| Arsenic | | | | | | | | | ND | | | ND | | ND | | | ND | ND | | | ND | ND | - | - | - | ND | - | ND | - | ND | - | - | ND | 0.00 | 0.025 |
| Barium | | | | | | | | | 0.04 | | | 0.02 | | 0.019 | | | 0.019 | 0.029 | | | ND | 0.016 | - | - | - | 0.021 | - | ND | - | 0.02 | - | - | 0.0377 | 0.04 | 1.0 |
| Beryllium | | | | | | | | | ND | | | ND | | ND | | | ND | ND | | | ND | 2E-04 | - | - | - | ND | - | ND | - | ND | - | - | ND | 0.00 | |
| Cadmium | | | | | | | | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | - | ND | ND | ND | - | ND | - | - | ND | 0.00 | 0.005 |
| Chromium (Total) | | | | | | | | | 0.01 | | | ND | ND | ND | ND | | ND | ND | | | ND | ND | - | - | - | ND | - | ND | - | ND | - | - | 0.0069 | 0.03 | 0.05 |
| Copper | | | | | | | | | ND | | | ND | | ND | | | ND | ND | | | ND | ND | - | - | - | ND | - | ND | - | ND | - | - | 0.0044 | 0.01 | 0.2 |
| Lead | | | | | | | | | 0.01 | ND | | ND | ND | ND | ND | ND | ND | 0.006 | ND | 0.001 | ND | 0.001 | - | ND | - | 0.002 | ND | 0.005 | - | ND | - | - | ND | 0.01 | 0.025 |
| Mercury | | | | | | | | | ND | | | ND | | ND | | | ND | ND | | | ND | ND | - | - | - | ND | - | ND | - | ND | - | - | - | 0.00 | 0.0007 |
| Nickel | | | | | | | | | ND | | | ND | | ND | | | ND | ND | | | ND | ND | - | - | - | 0.002 | - | ND | - | 0.001 | - | - | 0.0042 | 0.05 | 0.1 |
| Selenium | | | | | | | | | ND | ND | | ND | ND | ND | ND | | ND | ND | | | ND | ND | - | - | - | 0.004 | - | ND | - | ND | - | - | ND | 0.00 | 0.0 |
| Silver | | | | | | | | | ND | | | ND | | ND | | | ND | ND | | | ND | ND | - | - | - | ND | - | ND | - | ND | - | - | ND | 0.00 | 0.05 |
| Thallium | | | | | | | | | ND | | | ND | | ND | | | ND | ND | | | ND | ND | - | - | - | ND | - | ND | - | ND | - | - | ND | 0.00 | 0.0005 |
| Zinc | | | | | | | | | 0.03 | | | 0.15 | | 0.054 | | | 0.143 | 0.15 | | | 0.17 | 0.059 | - | - | - | 0.255 | - | 0.204 | - | 0.006 | - | - | 0.323 | 0.11 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | | | | | | | | 158 | 155 | | | | | | 1.860 | | | 226 | 220 | | 180 | - | - | - | - | - | - | 200 | - | - | - | 96.9 | |
| Biochemical Oxygen Demand | | | | | | | | | - | | | | | | | | | | | ND | | - | - | - | - | - | - | - | - | 1.2 | - | - | - | 0.1 | |
| Boron | | | | | | | | | ND | | | ND | | ND | | | ND | ND | | | | ND | - | - | - | - | - | ND | - | 0.01 | - | - | 0.0115 | 0.0 | 1.0 |
| Chemical Oxygen Demand | | | | | | | | | 14.9 | 23.4 | | 19.2 | | | | ND | ND | ND | 107 | ND | | 6 | - | 30.3 | - | - | - | - | ND | 17.2 | - | - | 44.1 | 12.6 | |
| Chromium (Hexavalent) | | | | | | | | | ND | | | | | | | | | | | | | ND | - | - | - | - | - | - | - | 0.01 | - | - | - | 0.0 | 0.05 |
| Chloride | | | | | | | | | 5.4 | 4.2 | | | | | | 5.86 | 6.59 | | 5.5 | 60.7 | | 5 | - | 4.3 | - | - | - | - | - | 5.9 | - | - | - | 6.9 | 250.0 |
| Color (PCU units) | | | | | | | | | - | | | | | | | | | | | | | 12 | - | - | - | - | - | - | 5 | 10 | - | - | - | 2.1 | 15.0 |
| Nitrate-Nitrite | | | | | | | | | 0.05 | 0.15 | | | | | | | | | ND | 0.069 | | ND | - | ND | - | - | - | - | 0.055 | 0.035 | - | - | ND | 0.0 | 10.0 |
| Nitrogen-Ammonia | | | | | | | | | ND | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | - | ND | - | - | - | - | ND | 0.026 | - | - | 0.091 | 0.0 | 2.0 |
| Phenols | | | | | | | | | ND | 0.0081 | | | ND | ND | ND | ND | ND | ND | ND | | | ND | - | - | - | - | - | - | 0.003 | - | - | 0.0161 | 0.0 | 0.001 |
| Sulfate | | | | | | | | | 8.2 | 10.1 | | | | | | 9.52 | 8.13 | | 8.8 | 8.5 | | 8.3 | - | 7.9 | - | - | - | - | - | 9.6 | - | - | - | 7.7 | 250.0 |
| Total Organic Carbon (TOC) | | 2.7 | | | | | | | - | 1.5 | 5 | 2.4 | 2.3 | | ND | BD | ND | 2.5 | ND | ND | | 1.5 | - | - | - | - | - | - | 2.6 | ND | 5.8 | 15.8 | 3.8 | 3.4 | |
| Total Dissolved Solids (TDS) | | | | | | | | | 244 | 177 | | | | | | | | | | 240 | | 215 | - | 228 | - | - | - | - | - | 225 | - | - | - | 142.3 | 500.0 |
| Total Hardness | | | | | | | | | 185 | 160 | | 205 | | | 190 | 190 | 170 | | 195 | | 200 | 173 | - | 194 | - | - | - | 170 | - | 200 | - | - | 200 | 144.7 | |
| Total Kjeldahl Nitrogen (TKN) | | | | | | | | | ND | | | | | | | | ND | ND | | ND | | ND | - | - | - | - | - | - | 0.11 | 0.27 | - | - | 0.35 | 0.3 | |
| Turbidity (NTU units) | | | | | | | | | - | 5.2 | | 18.5 | 19.1 | 48 | 3 | 12 | 14 | 4 | 22.8 | 11.4 | 27.5 | 17 | - | 9.2 | 28.3 | 31 | 23.8 | 14.4 | 3.5 | 14.8 | 229 | 38.3 | 28.8 | 134.1 | 5.0 |
| Cyanide | | | | | | | | | - | | | | | | | | | | | | | - | - | - | - | - | - | - | - | ND | - | - | - | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected. J = Estimated.
<DL = Detected below method detection limit. B = Analyte was detected in method blank.

MW-10B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | | 1.36 | 3.78 | 4.0 | 5.0 | 2.0 | 4.0 | | 4.0 | | 3.0 | | 4 | | 3 | | 3 | | 3 | | 3 | | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2.74 | 2.29 |
| Bromobenzene | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromochloromethane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| tert-Butylbenzene | | 1.91 | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chlorobenzene | | 0.38 | 0.86 | 1.0 | ND | ND | 1.0 | | 1.0 | | 1.0 | | 1 | | 1 | | 0.8 | | 1 | | 1 | | 1 | 1 | 1 | 0.9 | 0.9 | 1 | 1 | 2 | 1 | 0.7 | 0.9 | 1.22 | 1.58 |
| Chloroethane | | ND | 1.0 | ND | ND | ND | 2.0 | | ND | | ND | | ND | | ND | | ND | | 0.5 | | ND | | ND | ND | 0.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | | 1.73 | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Chlorotoluene | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Chlorotoluene | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | ND | ND | ND | ND | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | | ND | ND | ND | ND | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | | 0.14 | 0.18 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3-Dichlorobenzene | | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | | 0.82 | 0.66 | ND | ND | ND | 1.0 | | 0.7 | | 0.6 | | 0.6 | | 0.7 | | ND | | 0.6 | | 0.7 | | 0.7 | 0.7 | 0.6 | 0.6 | ND | 0.6 | ND | 0.6 | 0.6 | ND | ND | ND | ND |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | | ND | 16.8 | 4.0 | ND | ND | ND | | 3.0 | | 1.0 | | ND | | ND | | 1 | | 2 | | 3 | | 2 J | 1 | 1 | 0.9 | 1 | 1 | ND | 0.7 | 1 | ND | 0.9 | ND | ND |
| 1,1-Dichloroethane | | 26.9 | 22.4 | 30.0 | 26.0 | 30.0 | 34.0 | | 26.0 | | 22.0 | | 25 | | 18 | | 25 | | 22 | | 22 | | 19 | 20 | 18 | 20 | 22 | 23 | 20 | 19 | 16 | 19 | 17 | 14.7 | 17.8 |
| 1,2-Dichloroethane | | 0.96 | 0.5 | ND | 1.0 | 1.0 | ND | | ND | | ND | | ND | | ND | | ND | | ND | | 0.6 | | ND | 0.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | | ND | 0.15 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | | 34.8 | 21.4 | 26.0 | 9.0 | 6.0 | 24.0 | | 17.0 | | 10.0 | | 8 | | 15 | | 13 | | 18 | | 11 | | 15 | 15 | 15 | 13 | 19 | 19 | 14 | 17 | 15 | 17 | 20 | 21.7 | 13.6 |
| trans-1,2-Dichloroethene | | 2.86 | 1.5 | 2.0 | 1.0 | ND | 2.0 | | 1.0 | | 1.0 | | ND | | 1 | | 0.7 | | 0.7 | | 1 | | 0.7 | 0.9 | 0.7 | 0.7 | 0.7 | 0.9 | 0.5 | ND | 0.6 | ND | ND | 1.42 | ND |
| 1,2-Dichloropropane | | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3-Dichloropropane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloropropene | | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1-3-Dichloropropene | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | | 0.16 | 1.66 | 4.0 | 4.0 | ND | 3.0 | | 3.0 | | 3.0 | | 3 | | 2 | | 0.7 | | 1 | | 3 | | 0.8 | 2 | 0.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.95 |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | | 0.21 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.88 |
| p-isopropyltoluene | | 1.91 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | | 6.87 | <DL | 2.0 | 1.0 | 2.0 | 3.0 | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | | 0.40 | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| n-Propylbenzene | | 0.32 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Styrene | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | | 0.22 | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | | ND | 0.31 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | | 0.12 | ND | ND | ND | ND | ND | | 0.6 | | ND | | ND | | ND | | ND | | ND | | ND | | 2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichlorobenzene | | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trichlorobenzene | | ND | 3.83 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | | 7.76 | ND | 2.0 | ND | 1.0 | 3.0 | | 2.0 | | ND | | 0.6 | | 1 | | 0.9 | | 1 | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | | 4.80 | 7.52 | 14.0 | 3.0 | 3.0 | 3.0 | | 9.0 | | 7.0 | | 5 | | 9 | | 7 | | 6 | | 5 | | 6 | 8 | 4 | 8 | 4 | 9 | 4 | 5 | 3 | 7 | 3 | 5.69 | 2.7 |
| Trichlorofluoromethane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | | ND | 0.72 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | | ND | 25.9 | 42.0 | 19.0 | 8.0 | 36.0 | | 22.0 | | 12.0 | | ND | | 15 | | 15 | | 15 | | 15 | | 13 | 13 | 10 | 8 | 14 | 14 | 8 | 14 | 10 | 10 | 11 | 15.6 | ND |
| o-Xylene | | 1.47 | 0.98 | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Xylene & m-Xylene | | | 0.43 | 2.0 | ND | | | | 2.0 | | ND | | 1.2 | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-10B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | | | 12.6 | | | | 6.27 | | | | 1.33 | | | | ND | | | | 1.44 | | | 1.80 | | 2.43 | | 0.13 | | 0.1 | | 0.146 | | ND | |
| Calcium | | 72.2 | 59.4 | 64.6 | 65.0 | 51.8 | 58 | 62.8 | 73.5 | 66.7 | | 61.6 | 62.1 | 55.6 | 57.5 | 66.2 | ND | 55 | 52.6 | 61.1 | 65.8 | 64.7 | 64.4 | 61.7 | 59.3 | 63.9 | 62.7 | 68.6 | 55.9 | 66.8 | 68.1 | 66.9 | 59.4 | 62.7 | 62.3 |
| Iron | | 16.8 | 12.4 | 8.96 | 23.9 | 0.73 | 11.8 | 7.1 | 21.3 | 22 | | 12.1 | 7.31 | 5.55 | 8.9 | 38.8 | ND | 10.7 | 43.5 | 10.6 | 11.3 | 15.3 | 11.1 | 7.90 | 14.6 | 5.48 | 6.26 | 4.13 | 1.01 | 1.1 | 5.45 | 3.72 | 1.46 | 5 | 2.8 |
| Magnesium | | 22.7 | 21.4 | 20.1 | 22.7 | 15.6 | 19.4 | 20.6 | 25.6 | 24.1 | | 20.1 | 20 | 19.2 | 20.5 | 27.3 | 0.13 | 18.2 | 22.1 | 19.7 | 21 | 21.9 | 21.4 | 20.2 | 20.4 | 20.8 | 19.8 | 20.3 | 18.9 | 20.3 | 22.3 | 21.4 | 18.7 | 21.1 | 20.2 |
| Manganese | | 12.8 | 11.9 | 12 | 13.1 | 9.75 | 11.6 | 12 | 14.7 | 12.5 | | 11.9 | 11.9 | 10.9 | 10.3 | 12.5 | ND | 9.22 | 10.0 | 11.0 | 12.7 | 11.9 | 11.7 | 11.4 | 10.7 | 10.7 | 10.2 | 11.3 | 7.94 | 10.9 | 9.91 | 11.3 | 7.97 | 11.4 | 6.93 |
| Potassium | | 2.7 | 2.3 | 2.4 | 5.0 | 3.3 | 3.3 | 3.8 | 3.58 | 3.9 | | 3.4 | 2.34 | 2.88 | 3.18 | 5.24 | ND | 3.56 | 5.9 | 3.12 | 2.49 | 3.49 | 2.89 | 3.00 | 3.18 | 3.84 | 4.28 | 3.24 | 2.97 | 2.58 | 5.54 | 3.46 | 2.77 | 2.54 | 4.53 |
| Sodium | | 9.9 | 11.6 | 10.2 | 11.3 | 10.1 | 10.7 | 10.7 | 12.2 | 10 | | 8.86 | 10.6 | 10 | 10.7 | 3.02 | 11 | 10.5 | 7.6 | 10.7 | 10.3 | 10.7 | 9.45 | 10.9 | 9.83 | 10.6 | 9.76 | 8.96 | 9.39 | 9.86 | 10.4 | 9.82 | 9.62 | 9.84 | 10.3 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | 0.05 | | ND | | ND | |
| Arsenic | | | | | 0.021 | | | | 0.028 | | | | 0.016 | | | | 0.013 | | | | 0.02 | | | 0.030 | | 0.01 | | 0.01 | | 0.01 | | 0.013 | | 0.03 | |
| Barium | | | | | 0.17 | | | | 0.25 | | | | 0.1 | | | | ND | | | | 0.13 | | | 0.124 | | 0.13 | | 0.09 | | 0.09 | | 0.105 | | 0.11 | |
| Beryllium | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Cadmium | | <DL | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | 0 | ND | ND | ND | 0.002 | ND | 0 | ND | 0.01 | ND | ND | ND | ND | 0.01 | ND | ND | ND | ND | ND | ND | ND |
| Chromium (Total) | | | | | 0.03 | | | | 0.02 | | | | 0.02 | | | | ND | | | | 0.35 | | | 0.026 | | 0.03 | | ND | | 0.01 | | 0.013 | | ND | |
| Copper | | | | | 0.02 | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Lead | | 0.020 | <DL | 0.022 | 0.029 | ND | 0.018 | 0.023 | 0.010 | 0.034 | 0.021 | 0.009 | 0.007 | 0.012 | 0.005 | 0.026 | 0.004 | 0.013 | 0.009 | 0.006 | 0.02 | 0.003 | 0.010 | 0.042 | 0.010 | 0.01 | 0 | 0.01 | 0 | 0 | 0 | 0.014 | 0 | 0.01 | 0.003 |
| Mercury | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Nickel | | | | | ND | | | | 0.04 | | | | 0.06 | | | | ND | | | | 0.15 | | | 0.055 | | 0.07 | | 0.04 | | 0.05 | | 0.048 | | 0.06 | |
| Selenium | | <DL | | | ND | | | | ND | | | | ND | | | ND | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Silver | | | | | ND | | | | ND | | | | 0.01 | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Thallium | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Zinc | | | | | 0.08 | | | | 0.04 | | | | 0.03 | | | | ND | | | | ND | | | ND | | 0.03 | | ND | | ND | | ND | | 0.03 | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | 278 | 271 | 247 | 296 | 306 | 321 | 294.0 | 282 | 259 | 278 | 257 | 275 | 238 | 262 | 264 | 291 | 261 | 247 | 288 | 265 | 256 | 246 | 310 | 260 | 281 | 317 | 288 | 268 | 310 | 285 | 281 | 251 | 282 | 257 |
| Biochemical Oxygen Demand | | | | | 3 | | | | ND | | | | 7 | | | | 8 | | | | 15 | | | 9 | | 13 | | 17 | | ND | | 9 | | 14 | |
| Boron | | | | | 0.1 | | | | ND | | | | 0.02 | | | | ND | | | | 0.07 | | | 0.112 | | 0.06 | | 0.08 | | 0.07 | | 0.081 | | 0.08 | |
| Chemical Oxygen Demand | | 16 | 17 | ND | 8 | 6.0 | ND | 15.0 | 45.4 | 29.9 | 18.1 | 16.4 | 23.4 | 45.3 | 27.7 | 20.4 | 25.3 | ND | 25.1 | 45.4 | 36.6 | ND | 29.5 | 19.0 | ND | 22.4 | 39.1 | 26.3 | 25.4 | ND | 38.3 | ND | 23.2 | ND | 24.3 |
| Chromium (Hexavalent) | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Chloride | | 21 | 20.3 | 23 | 22 | 26.0 | 18.0 | 43.0 | 20.7 | 16.4 | 23.2 | 23 | 25.6 | 16.5 | 19.9 | 17.8 | 23.3 | 18.4 | 15 | 21.1 | 24.4 | 18.9 | 15.0 | 24.0 | 13.2 | 20.6 | 12.8 | 20.3 | 16.3 | 20.8 | 13.7 | 18 | 14.5 | 18.5 | 15.3 |
| Color (PCU units) | | | | | ND | | | | 30 | | | | 20 | | | | 40 | | | | 30 | | | 60 | | 20 | | 35 | | 50 | | 20 | | 15 | |
| Nitrate-Nitrite | | <DL | <DL | ND | ND | ND | ND | 0.1 | 1.63 | 1.1 | ND | ND | ND | 0.86 | ND | ND | 0.48 | 0.76 | ND | 0.096 | 0.78 | ND | ND | 1.56 | ND | 0.58 | ND | 0.61 | 0.62 | 0.71 | ND | 1.12 | 0.1 | 0.21 | ND |
| Nitrogen-Ammonia | | <DL | <DL | ND | 0.3 | 0.8 | 1.2 | 4.6 | 1.76 | 1.9 | 1.99 | 1.2 | 2.05 | 0.51 | 1.3 | 3.74 | 1.39 | 1.3 | 2.02 | 2.92 | 1.5 | 1.7 | 0.890 | 1.24 | 1.54 | 1.26 | 1.45 | 1.66 | 0.88 | 1.14 | 1.32 | 1.52 | 0.76 | 1.68 | 0.684 |
| Phenols | | ND | ND | ND | 0.010 | ND | ND | ND | 0.010 | ND | 0.018 | 0.013 | 0.031 | ND | 0.020 | 0.015 | 0.017 | 0.008 | 0.010 | 0.040 | 0.05 | 0.013 | 0.01 | 0.014 | 0.005 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.020 | 0.0112 | 0.02 | 0.01 | 0.0129 |
| Sulfate | | 0.5 | 4.5 | ND | ND | ND | ND | ND | 14 | 11 | ND | ND | 5 | 5.7 | 6.7 | 6.7 | ND | ND | ND | ND | ND | 8.7 | 6.4 | ND | ND | 12 | 7.1 | ND | 14 | 7.4 | 106 | ND | 11 | 6.37 | 7.15 |
| Total Organic Carbon (TOC) | | 13 | 5.4 | 6 | 6 | 6 | 5.0 | 14.0 | 8.9 | 6.3 | 7.2 | 5.6 | 7.8 | 4.7 | 7 | 4.9 | 8.9 | 4.8 | 9.5 | 8.9 | 6.4 | 6.1 | 7.0 | 6.4 | 4.6 | ND | 4.5 | 6.2 | 4.5 | 6 | 5.3 | 7 | 4.8 | 4.8 | 4.3 |
| Total Dissolved Solids (TDS) | | 290 | 311 | 336 | 360 | 149 | 306 | 332.0 | 228 | 376 | 347 | 338 | 305 | 283 | 284 | 288 | 336 | 282 | 269 | 330 | 319 | 290 | 282 | 326 | 290 | 319 | 271 | 368 | 292 | 306 | 308 | 290 | 305 | 336 | 297 |
| Total Hardness | | 272 | 237 | 294 | 256 | 194 | 225 | 242.0 | 320 | 304 | 368 | 277 | 299 | 295 | 422 | 284 | 352 | 212 | 222 | 234 | 251 | 252 | 249 | 237 | 232 | 245 | 199 | 255 | 217 | 250 | 262 | 255 | 225 | 243 | 239 |
| Total Kjeldahl Nitrogen (TKN) | | | | | 1.9 | | | | 1.62 | | | | 2.88 | | | | 3.28 | | | | 2.35 | | | 5.01 | | ND | | 3.03 | | 2.52 | | 3.24 | | 4.71 | |
| Turbidity (NTU units) | | 3200 | 496 | 280 | 386 | 24.0 | 214 | 138.0 | 220 | 160 | 240 | 75 | 24 | 150 | 88 | 66 | 23 | 9 | 130 | 19 | 27 | 46 | 70 | 29 | 36 | 14 | 43 | 18 | 23 | 700 | 18 | 22 | 9 | 6.1 | 2.4 |
| Cyanide | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | | |

MW-10B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | ND | ND | ND | 2.8 | 14 | ND | 2 | ND | 1.2 | ND | 1.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.2 | ND | 0.84 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Benzene | 1.5 | 2.2 | 2.1 | 2.3 | 2.2 | 2.3 | 1.8 | 1.6 | 2 | 1.6 | 1.6 | 1.4 | 1.7 | ND | 0.59 | 0.85 | 1.8 | 1.4 | 0.82 | ND | ND | 1.9 | ND | ND | 1.6 | 1.3 | ND | ND | 1.4 | ND | ND | 1.8 | ND | 1.91 | 1.0 |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromoform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| tert-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.03 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 60.0 |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | 0.58 | 1.5 | 1.4 | 1.5 | 1.4 | 1.5 | 0.87 | 1 | 1.2 | 0.95 | 0.88 | 1.2 | 1 | ND | 0.36 | 0.52 | 1.4 | 0.98 | ND | ND | ND | 1.7 | ND | ND | 1.2 | 0.93 | ND | ND | ND | ND | ND | 1.3 | ND | 0.81 | 5.0 |
| Chloroethane | ND | ND | ND | ND | 0.4 | 0.55 | 0.33 | 0.4 | ND | 0.37 | 0.5 | ND | 0.52 | ND | ND | 0.26 | 0.59 | 0.55 | ND | ND | ND | 0.67 | ND | ND | 0.75 | 0.57 | ND | ND | ND | ND | ND | ND | ND | 0.18 | 5.0 |
| Chloroform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 7.0 |
| Chloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 3.0 |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 3.0 |
| 1,4-Dichlorobenzene | ND | 0.55 | ND | ND | 0.53 | 0.57 | ND | ND | ND | 0.31 | 0.3 | ND | 0.34 | ND | ND | ND | 0.41 | ND | ND | ND | ND | 0.53 | ND | ND | 0.37 | 0.29 | ND | ND | ND | ND | ND | ND | ND | 0.25 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | ND | ND | ND | ND | 1.3 | 0.95 | 0.58 | 0.85 | ND | 0.85 | 0.64 | ND | ND | ND | 0.33 | 0.42 | 0.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | 8.4 | - | ND | - | 0.90 | 5.0 |
| 1,1-Dichloroethane | 17 | 15 | 16.1 | 17.6 | 18 | 16 | 21 | 18 | 19 | 17 | 19 | 12 | 18 | 13 | 11 | 14 | 18 | 14 | 12 | 12 | 15 | 12 | 13 | 21 | 11 | 15 | 11 | 11 | 16 | 11.5 | 18.1 | 15.5 | 9.5 | 18.17 | 5.0 |
| 1,2-Dichloroethane | ND | ND | ND | 0.5 | ND | ND | 0.4 | ND | ND | 0.33 | ND | ND | 0.39 | ND | ND | ND | 0.43 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.12 | 0.6 |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | 0.4 | ND | ND | ND | 0.31 | 0.35 | ND | 0.37 | ND | ND | 0.24 | 0.37 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 5.0 |
| cis-1,2-Dichloroethene | 17 | 20 | 26.1 | 31.5 | 35 | 39 | 22 | 28 | 36 | 35 | 31 | 27 | 28 | 15 | 19 | 31 | 55 | 26 | 19 | 36 | 37 | 40 | 38 | 49 | 41 | 54 | 30 | 38 | 43 | 35.2 | 62.3 | 54.4 | 38.2 | 26.51 | 5.0 |
| trans-1,2-Dichloroethene | 0.53 | 0.67 | 1.1 | 1.1 | 0.96 | 1.1 | 0.69 | 0.61 | 0.87 | 0.88 | 0.64 | ND | 1.1 | ND | 0.34 | 0.52 | 0.97 | 0.58 | ND | ND | ND | ND | ND | ND | 0.64 | 1.1 | ND | ND | ND | ND | ND | 1.2 | ND | 0.64 | 5.0 |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| Ethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.56 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.02 | 5.0 |
| p-Isopropyltoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.03 | 5.0 |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.27 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Naphthalene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 10.0 |
| n-Propylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| Styrene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |
| Toluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.05 | 5.0 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.06 | 5.0 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.33 | 5.0 |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| Trichloroethene | 2.8 | 2.6 | 4 | 4.3 | 10 | 7.2 | 4.9 | 3 | 2.2 | 2.3 | 1.9 | 1.4 | 2.2 | 1.6 | 1.5 | 2.2 | 1.9 | 1.8 | 1.9 | ND | ND | 2.6 | ND | ND | 5.5 | 5.9 | ND | ND | 2.1 | ND | ND | 1.8 | ND | 3.90 | 5.0 |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Vinyl chloride | 8 | 6.4 | 12.2 | 15.9 | 12 | 13 | 8.8 | 10 | 9.3 | 9 | 8.6 | 6.7 | 15 | 2 | 3.6 | 4.9 | 16 | 6.5 | 2.4 | 10 | 9.2 | 9.6 | 7 | 8.9 | 6.8 | 7.5 | ND | ND | ND | 4.9 | 8.8 | 10.2 | ND | 10.49 | 2.0 |
| o-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.06 | 5.0 |
| p-Xylene & m-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.10 | 5.0 |

MW-10B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | ND | | 0.71 | | 3.4 | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.03 | 0 | - | ND | ND | - | ND | ND | 0.03 | ND | - | 0.068 | 0.87 | |
| Calcium | 69.3 | 57.4 | 61.2 | 71.6 | 66.7 | 73.1 | 66.8 | 64.2 | 68.9 | 63.7 | 74.9 | 67.7 | 69.1 | 63 | 71.1 | 67.5 | 75.5 | 75.1 | 70.7 | 72 | 79 | 66.8 | 74.7 | 74 | 70 | 74.5 | 66.4 | 72.9 | 83 | 72.4 | 77.1 | 76.4 | 76.6 | 65.64 | |
| Iron | 4.89 | 4.25 | 8.82 | 1.63 | 6.1 | 4 | ND | 0.44 | 0.61 | 1.7 | 0.48 | 0.24 | 0.52 | 0.337 | 0.268 | 0.599 | 3.48 | 0.5 | 0.54 | 2.6 | 1.6 | 1.8 | 1.62 | 1.04 | 0.66 | 1.42 | ND | 0.294 | 1.26 | 0.137 | 2.43 | 0.782 | 0.865 | 6.29 | 0.3 |
| Magnesium | 21.6 | 19.2 | 21.3 | 21.4 | 21.3 | 22.6 | 20.6 | 19.4 | 22 | 20.6 | 23.1 | 21.8 | 21.8 | 19.9 | 22.6 | 21.6 | 24.5 | 24.1 | 23 | 25 | 26 | 23.3 | 25.4 | 24.9 | 23.8 | 24.4 | 20.9 | 20.7 | 26 | 22.4 | 23.9 | 24.3 | 23.8 | 21.44 | 35.0 |
| Manganese | 11.2 | 8.8 | 10.1 | 8.81 | 9.5 | 9.7 | 2.3 | 4.3 | 5.4 | 6.6 | 10.6 | 5.7 | 8.3 | 5.02 | 3.06 | 4.38 | 11.3 | 5.9 | 6.1 | 9.7 | 11 | 9.02 | 10.5 | 5.78 | 6.57 | 7.54 | 2.74 | 3.71 | 10.8 | 2.16 | 9.29 | 5.87 | 5.59 | 8.97 | 0.3 |
| Potassium | 3.02 | 2.87 | 2.71 | 2.65 | 3.4 | 2.6 | 2.3 | 2.2 | 2.5 | 2.3 | 2.4 | 2.5 | 2.5 | 1.76 | 2.08 | 2.07 | 2.42 | 2.4 | 2.2 | 2.3 | 2.3 | 2.2 | 2.5 | 2.4 | 2 | 2.4 | 2.2 | ND | ND | 2.59 | 3.56 | 2.42 | 2.41 | 2.83 | |
| Sodium | 9.64 | 8.99 | 9.91 | 10.6 | 8.8 | 9.2 | 9.7 | 8.8 | 9.3 | 8.6 | 9.4 | 9.9 | 9.5 | 9.2 | 9.8 | 9.4 | 9 | 8.9 | 9.5 | 8.7 | ND | 8.7 | 9.2 | 8.3 | 9.1 | 9.1 | 9.3 | 9.29 | 9.86 | 8.22 | 8.83 | 8.99 | 9.64 | 9.47 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.003 |
| Arsenic | 0.016 | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | 0.013 | ND | | | ND | 0.005 | - | - | ND | 0.005 | - | ND | ND | ND | 0.012 | - | ND | 0.01 | 0.025 |
| Barium | 0.105 | | 0.1 | | 0.16 | | 0.14 | | 0.08 | | 0.093 | 0.08 | | 0.085 | | | 0.094 | 0.074 | | | ND | 0.092 | - | - | 0.071 | 0.073 | - | ND | ND | 0.055 | 0.087 | - | 0.066 | 0.08 | 1.0 |
| Beryllium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | |
| Cadmium | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.005 |
| Chromium (Total) | ND | | 0.01 | | 0.01 | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.02 | 0.05 |
| Copper | ND | | ND | | 0.01 | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.2 |
| Lead | 0.007 | 0 | ND | ND | 0.01 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.001 | ND | 0.002 | ND | ND | ND | ND | ND | 0.004 | ND | 0.002 | 0.004 | 0.004 | ND | 0.01 | 0.025 |
| Mercury | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 6E-05 | - | 1E-04 | 0.00 | 0.0007 |
| Nickel | 0.046 | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.005 | - | - | 0.005 | 0.005 | - | ND | ND | 0.004 | 0.004 | - | 0.004 | 0.02 | 0.1 |
| Selenium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.006 | - | - | ND | 0.006 | - | ND | ND | ND | ND | - | ND | 0.00 | 0.0 |
| Silver | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | 0.001 | - | ND | ND | ND | ND | - | ND | 0.00 | 0.05 |
| Thallium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 0.005 | - | 0.0066 | 0.00 | 0.0005 |
| Zinc | 0.029 | | 0.01 | | ND | | ND | | ND | | ND | 0.01 | | ND | | | 0.01 | 0.014 | | | ND | 0.004 | - | - | 0.014 | ND | - | ND | ND | 0.004 | 0.007 | - | 0.009 | 0.01 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 286 | 276 | 335 | 270 | 274 | 267 | 272 | 280 | 242 | 268 | 349 | 134 | 321 | 314 | 261 | 257 | 340 | 331 | 325 | 290 | 330 | 310 | 330 | 311 | 319 | 303 | 260 | 268 | 315 | 267 | 392 | 269 | 307 | 284.3 | |
| Biochemical Oxygen Demand | 4 | | 7 | | ND | | ND | | ND | | 4.4 | 2.7 | | ND | | | ND | 2.6 | | 5 | ND | 4.4 | - | - | 3.5 | 2.2 | 2.4 | ND | ND | 1.2 | 2.4 | ND | 7 | 4.0 | |
| Boron | 0.073 | | 0.05 | | 0.07 | | ND | | 0.06 | | 0.052 | 0.07 | | 0.04 | | | 0.059 | 0.057 | | | ND | 0.07 | - | - | 0.05 | 0.06 | - | ND | ND | 0.045 | 0.053 | - | 0.047 | 0.0 | 1.0 |
| Chemical Oxygen Demand | 38.8 | 12.8 | 38 | 18 | 19.9 | 14.1 | 10.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 15.9 | ND | 23 | 11.4 | 9.7 | ND | ND | 11.3 | 8.4 | - | 21.3 | 13 | 35.2 | 31.8 | 29.8 | 15.4 | |
| Chromium (Hexavalent) | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | 0.003 | - | - | ND | 0.0 | 0.05 |
| Chloride | 19.9 | 12.8 | 12 | 14 | 12.3 | 11 | 16.8 | 11.7 | 9.2 | 10.9 | 14 | 10.1 | 13.9 | 13 | 12.6 | 11.5 | 11.5 | 8 | 11.3 | 8.75 | 10.4 | 8.9 | 11.5 | 6.4 | 8.4 | 11.2 | 9.1 | 8.71 | 11.7 | 12.5 | 10.2 | 8.0 | 10.9 | 15.7 | 250.0 |
| Color (PCU units) | 50 | | ND | | 100 | | 15 | | 5 | | 40 | ND | | 10 | | | 0 | 12.5 | | | 5 | 39 | - | - | 8 | 22 | - | ND | 15 | 10 | - | - | 5 | 18.8 | 15.0 |
| Nitrate-Nitrite | 0.217 | ND | ND | ND | 0.18 | ND | 1.2 | ND | ND | ND | 0.12 | ND | 1.3 | ND | ND | | ND | ND | 1.6 | 0.056 | 0.305 | ND | ND | ND | ND | ND | 1.5 | ND | 0.054 | ND | 0.042 | ND | ND | 0.3 | 10.0 |
| Nitrogen-Ammonia | 1.79 | 1.17 | 1.8 | 1.1 | 0.4 | 1.2 | 0.86 | 0.37 | 0.26 | 0.65 | 1 | 0.52 | 0.88 | 0.655 | 0.235 | 0.212 | 0.823 | 0.44 | 0.29 | 1.2 | 1.64 | 0.796 | 0.852 | 0.357 | 0.496 | 0.709 | 0.2 | 0.44 | 1.2 | 0.19 | 0.96 | 0.68 | 0.32 | 1.1 | 2.0 |
| Phenols | 0.0074 | 0.009 | ND | 0.004 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.006 | ND | 0.004 | 0.007 | 0.0096 | 0.0110 | 0.0 | 0.001 |
| Sulfate | 5.52 | 7.27 | 7.2 | 6.1 | 7.3 | 6.9 | 6.1 | 7.1 | 7.1 | 6.6 | 6.8 | 4.3 | 5.4 | 6.7 | 7.2 | 6.91 | 5.16 | 7.7 | 5.8 | ND | ND | 5.3 | 5.4 | 6.2 | 5.4 | 5.4 | 6.2 | 5.65 | 6.1 | 6.2 | 4.4 | 5.0 | 6.1 | 6.4 | 250.0 |
| Total Organic Carbon (TOC) | 3.1 | 2.4 | 4.2 | 3.2 | 4.4 | 3.6 | 3 | 2.4 | 3 | 3.1 | 2.7 | 4.4 | 5.3 | 2.7 | 1.6 | 1.5 | 3.6 | 3.0 | 1.4 | 3.9 | 3.6 | 4.0 | 3.6 | 3.4 | 3.9 | 3.0 | 3.1 | 1.65 | 5.2 | ND | 3.9 | 12.8 | 2.9 | 4.9 | |
| Total Dissolved Solids (TDS) | 320 | 309 | 322 | 312 | 331 | 287 | 307 | 282 | 404 | 378 | 325 | 308 | 318 | 286 | 294 | 290 | 308 | 295 | 296 | 410 | 370 | 339 | 332 | 326 | 324 | 311 | 278 | 300 | 342 | 279 | 337 | 335 | 308 | 312.1 | 500.0 |
| Total Hardness | 262 | 222 | 241 | 267 | 254 | 276 | 252 | 240 | 262 | 244 | 282 | 259 | 262 | 240 | 270 | 260 | 290 | 287 | 271 | 280 | 310 | 263 | 291 | 287 | 273 | 286 | 257 | 250 | 350 | 250 | 300 | 300 | 227 | 265.4 | |
| Total Kjeldahl Nitrogen (TKN) | 2.19 | | 3.1 | | 1.4 | | 1.3 | | ND | | 1.6 | ND | | ND | | | 1.6 | 1.4 | | 0.839 | 1.55 | 1.25 | - | - | 0.78 | 0.88 | - | 0.32 | 1 | 0.36 | 1.4 | 0.88 | 0.53 | 1.5 | |
| Turbidity (NTU units) | 36 | 8.9 | 140 | 23 | 75.7 | 109 | 1.9 | 1.7 | 3 | 6.2 | 6.9 | 1.9 | 4.5 | 37 | 8 | 0 | 4 | 0 | 4.1 | 3.1 | 0.1 | 0.3 | 3 | 0 | 9.4 | 25.4 | 3.3 | 0.8 | 1.7 | 1.4 | 15.6 | 0.60 | 2.40 | 112.6 | 5.0 |
| Cyanide | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected. J = Estimated.
<DL = Detected below method detection limit. B = Analyte was detected in method blank.

MW-11B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | 1.45 | 8.87 | 0.38 | | 6.0 | 3.0 | 2.0 | | | | | | | | 2 | | | | 3.0 | | | | 2 | | 3 | | | | | | 2 | | 1 | | 2.45 |
| Bromobenzene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Bromochloromethane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Bromodichloromethane | ND | ND | ND | | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | ND | ND | | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| sec-Butylbenzene | 0.16 | 0.23 | <DL | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| tert-Butylbenzene | ND | 0.20 | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Chlorobenzene | 0.14 | 0.20 | <DL | | ND | ND | 1.0 | | | | | | | | ND | | | | 0.6 | | | | ND | | ND | | | | | | 1 | | ND | | 1.26 |
| Chloroethane | ND | ND | ND | | 6.0 | ND | ND | | | | | | | | 3 | | | | 1.0 | | | | 1 | | 0.9 | | | | | | ND | | ND | | ND |
| Chloroform | ND | <DL | ND | | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 2-Chlorotoluene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 4-Chlorotoluene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Dibromochloromethane | ND | ND | ND | | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | ND | ND | | ND | ND | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,2-Dichlorobenzene | ND | <DL | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,3-Dichlorobenzene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,4-Dichlorobenzene | ND | 0.23 | ND | | ND | ND | ND | | | | | | | | ND | | | | 1.0 | | | | ND | | ND | | | | | | ND | | ND | | ND |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | 2.0 | | | | 0.7 J | | 1 | | | | | | ND | | 0.7 | | ND |
| 1,1-Dichloroethane | 6.25 | 7.33 | 5.16 | | 16.0 | 2.0 | 5.0 | | | | | | | | 2 | | | | 4.0 | | | | 3 | | 2 | | | | | | 3 | | 2 | | 2.18 |
| 1,2-Dichloroethane | 0.16 | <DL | ND | | 1.0 | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,1-Dichloroethene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| cis-1,2-Dichloroethene | ND | 19.7 | 10.6 | | 30.0 | 8.0 | 12.0 | | | | | | | | 7 | | | | 12.0 | | | | 8 | | 6 | | | | | | 9 | | 5 | | 5.9 |
| trans-1,2-Dichloroethene | 14.3 | 0.74 | 0.41 | | 28.0 | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,2-Dichloropropane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,3-Dichloropropane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 2,2-Dichloropropane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,1-Dichloropropene | ND | ND | <DL | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| cis-1-3-Dichloropropene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Ethylbenzene | 0.16 | 0.25 | 0.13 | | ND | ND | 2.0 | | | | | | | | ND | | | | 1.0 | | | | ND | | ND | | | | | | ND | | ND | | 1.06 |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | 0.52 | 0.99 | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | 1.02 |
| p-Isopropyltoluene | ND | 0.20 | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Methylene chloride | 1.76 | 6.00 | ND | | 3.0 | 3.0 | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | 0.52 | 0.17 | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| n-Propylbenzene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Styrene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,1,2,2-Tetrachloroethane | ND | 1.90 | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Tetrachloroethene | 1.48 | ND | 0.79 | | ND | ND | ND | | | | | | | | 0.6 | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Toluene | <DL | 0.35 | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | 0.8 | | ND | | | | | | ND | | ND | | ND |
| 1,2,3-Trichlorobenzene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,2,4-Trichlorobenzene | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,1,1-Trichloroethane | ND | 1.22 | 0.43 | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | 1 | | ND | | ND |
| 1,1,2-Trichloroethane | ND | ND | <DL | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Trichloroethene | 3.53 | 4.75 | 2.0 | | 2.0 | 2.0 | 4.0 | | | | | | | | 2 | | | | 4.0 | | | | 3 | | 3 | | | | | | 3 | | 2 | | 2.85 |
| Trichlorofluoromethane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,2,3-Trichloropropane | ND | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,2,4-Trimethylbenzene | 0.20 | ND | ND | | ND | ND | 2.0 | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| 1,3,5-Trimethylbenzene | 0.120 | ND | ND | | ND | ND | ND | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | ND | ND | | 11.0 | ND | 7.0 | | | | | | | | 3 | | | | 4.0 | | | | 2 | | 2 | | | | | | 3 | | 1 | | ND |
| o-Xylene | 0.070 | 0.36 | ND | | ND | | | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | 0.92 |
| p-Xylene & m-Xylene | | | ND | | ND | | | | | | | | | | ND | | | | ND | | | | ND | | ND | | | | | | ND | | ND | | 1.78 |

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HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 4.3 | | | | 3.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | 23.4 | 16.5 | 25.1 | | 48.2 | 13.9 | 25.4 | | | 12.3 | | | | 28.2 | 11.6 | 14 | | | 23.6 | | | | 31.5 | | 19.7 | | | | | | 29.7 | | | | 36.7 |
| Iron | 26.9 | 11.7 | 26.5 | | 25.1 | 13.1 | 18.2 | | | 13.1 | | | | 22.7 | 12.7 | 39.3 | | | 11.1 | | | | 47.6 | | 17.2 | | | | | | 26.5 | | | | 19.3 |
| Magnesium | 7.6 | 4.5 | 8.1 | | 14.8 | 4 | 9.8 | | | 4.61 | | | | 9.5 | 3.87 | 8.09 | | | 6.5 | | | | 7.93 | | 5.45 | | | | | | 9.34 | | | | 14 |
| Manganese | 6.99 | 6.5 | 7.71 | | 17.1 | 5.42 | 7.44 | | | 4.56 | | | | 8.5 | 4.45 | 5.27 | | | 6.5 | | | | 8.69 | | 7.80 | | | | | | 11.9 | | | | 10.8 |
| Potassium | 3.3 | 1.1 | 4 | | 4.1 | 1.6 | 3.1 | | | 3.46 | | | | 4.04 | 2.04 | 9.5 | | | 3.2 | | | | 4.62 | | 1.84 | | | | | | 3.19 | | | | 3.08 |
| Sodium | 1.3 | 1.4 | 3.3 | | 8.8 | 3.3 | 7.5 | | | 1.58 | | | | 6.38 | 1.67 | 3.02 | | | 2.8 | | | | 3.59 | | 2.05 | | | | | | 3.99 | | | | 7.24 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | ND | | | | 0.041 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barium | 0.23 | | | | 0.52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | | <DL | <DL | | ND | ND | ND | | | ND | | | | ND | ND | ND | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Chromium (Total) | <DL | | | | 0.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | <DL | | | | 0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | <DL | <DL | 0.008 | | ND | ND | 0.020 | | | 0.005 | | | | 0.006 | 0.004 | 0.024 | | | 0.009 | | | | 0.003 | | 0.001 | | | | | | ND | | | | 0.001 |
| Mercury | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nickel | 0.62 | | | | 0.05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | 0.021 | ND | 0.08 | | ND | ND | ND | | | ND | | | | 0.01 | ND | ND | | | ND | | | | ND | | ND | | | | | | ND | | | | ND |
| Silver | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thallium | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | 0.04 | | | | 0.12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 95 | 95 | 117 | | | 84.0 | 135.0 | | | 44.4 | | | | 128 | 45.4 | | | | 91.3 | | | | | | 78.8 | | | | | | 145 | | | | 192 |
| Biochemical Oxygen Demand | 19.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boron | ND | | | | 0.06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chemical Oxygen Demand | 21.0 | 15.0 | 12 | | | 5.0 | ND | | | ND | | | | 43.9 | 17.5 | | | | 23.4 | | | | | | ND | | | | | | 48.4 | | | | 33.2 |
| Chromium (Hexavalent) | <DL | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | <DL | 6 | 7 | | | ND | 4.0 | | | ND | | | | 10.1 | ND | | | | 2.3 | | | | | | ND | | | | | | 3.92 | | | | 10.3 |
| Color (PCU units) | 55.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate-Nitrite | <DL | <DL | <DL | | ND | ND | ND | | | 1.3 | | | | 0.34 | ND | | | | ND | | | | | | ND | | | | | | ND | | | | 0.176 |
| Nitrogen-Ammonia | 1.0 | <DL | <DL | | 1.6 | 0.6 | 2.2 | | | 0.4 | | | | 1.01 | ND | | | | 0.8 | | | | | | 0.390 | | | | | | 0.56 | | | | 4.12 |
| Phenols | 0.002 | ND | <DL | | | ND | ND | | | 0.010 | | | | 0.019 | 0.013 | | | | ND | | | | | | 0.001 | | | | | | 0.0138 | | | | 0.0225 |
| Sulfate | 11 | 16.3 | 19.9 | | | 21.0 | 12.0 | | | 12.0 | | | | 8.7 | 8 | | | | 6.0 | | | | | | 6.1 | | | | | | 12 | | | | 8.77 |
| Total Organic Carbon (TOC) | 8 | 8 | 5 | | 10.0 | 3.0 | 6.0 | | | 5.0 | | | | 6.7 | 5.4 | | | | 6.4 | | | | | | 5.8 | | | | | | 6.6 | | | | 4.3 |
| Total Dissolved Solids (TDS) | 132.0 | 110 | 118 | | | 139 | 153.0 | | | 60.0 | | | | 183 | 85 | | | | 112 | | | | | | 75 | | | | | | 153 | | | | 216 |
| Total Hardness | 89.5 | 60.7 | 96 | | | 51.0 | 104.0 | | | 54.0 | | | | 187 | 99 | | | | 85.6 | | | | | | 71.6 | | | | | | 113 | | | | 149 |
| Total Kjeldahl Nitrogen (TKN) | 1.9 | | | | 2.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Turbidity (NTU units) | 55 | 243 | 182 | | | 32.0 | 94.0 | | | 76.0 | | | | 100 | 500 | | | | 70.0 | | | | | | 45 | | | | | | 33 | | | | 9.7 |
| Cyanide | <DL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | 11 | 5 | 6 | ND | 16 | 4 | 14 | | | 5.5 | 5.5 | 3.4 | ND | ND | | 2.3 | ND | ND | 1.7 | ND | ND | ND | ND | ND | - | 3.8 | ND | 3.26 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| Benzene | 2.1 | 3.6 | 2.5 | 2 | 3 | 2.2 | 2.6 | 3.8 | 3.8 | 2.5 | 1.6 | 2.2 | 0.4 | | | 1.4 | 0.79 | 3.6 | 1.2 | ND | | 1.1 | ND | ND | 1.4 | 0.67 | ND | ND | ND | ND | - | 4.4 | ND | 1.95 | 1.0 |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 50.0 |
| Bromoform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 50.0 |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 50.0 |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | 0.28 | ND | ND | 0.32 | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.02 | 5.0 |
| tert-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | ` |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | ND | 5.4 | 2.4 | ND | 2.7 | 0.67 | 0.59 | 6.4 | 5.1 | 2.1 | 0.46 | 0.81 | ND | | | 1.6 | 0.34 | 5.8 | 0.58 | ND | | 0.71 | ND | 6.6 | 1.4 | 0.53 | ND | ND | ND | ND | - | 10.9 | ND | 1.38 | 5.0 |
| Chloroethane | ND | 0.74 | ND | ND | 1 | 0.95 | 0.8 | 0.94 | 0.86 | 0.64 | 0.36 | 0.45 | 0.44 | | | 0.5 | 0.27 | 1.1 | ND | ND | | 0.5 | ND | ND | 0.34 | ND | ND | ND | ND | ND | - | ND | ND | 0.51 | 5.0 |
| Chloroform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 7.0 |
| Chloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | ND | 0.88 | ND | ND | 0.43 | ND | ND | 1.5 | 0.94 | 0.36 | ND | ND | ND | | | 0.29 | ND | 0.99 | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | 1.6 | ND | 0.16 | 3.0 |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 3.0 |
| 1,4-Dichlorobenzene | ND | 1.7 | ND | ND | 1 | ND | ND | 2.2 | 1.5 | 0.71 | ND | ND | ND | | | 0.55 | ND | 1.6 | ND | ND | | 0.25 | ND | ND | 0.26 | ND | ND | ND | ND | ND | - | 2.4 | ND | 0.31 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | ND | ND | ND | ND | 1.5 | 0.71 | 0.72 | 0.8 | ND | 0.84 | 0.5 | 0.65 | ND | | | 0.55 | 0.6 | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | 8.6 | - | ND | - | 0.45 | 5.0 |
| 1,1-Dichloroethane | 2.1 | 6.2 | 4.4 | 1.5 | 5.4 | 1.2 | 2.9 | 5.9 | 5.3 | 3.1 | 0.97 | 1 | 1 | | | 4 | 1.5 | 16 | 0.41 | ND | | 1.1 | ND | 15 | 0.57 | 0.67 | ND | ND | ND | ND | - | 8.4 | ND | 3.45 | 5.0 |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | 0.58 | 0.5 | ND | ND | ND | ND | | | ND | ND | 0.64 | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.07 | 0.6 |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| cis-1,2-Dichloroethene | 3.8 | 9.9 | 9.7 | 4.1 | 14 | 3.8 | 8.4 | 8.7 | 8.7 | 6.2 | 2.9 | 2.9 | 1.3 | | | 5.5 | 2.6 | 16 | 1.4 | ND | | 2.8 | ND | ND | 2.1 | 1.8 | ND | ND | 6.4 | ND | - | 14 | ND | 6.28 | 5.0 |
| trans-1,2-Dichloroethene | ND | 0.55 | ND | ND | 0.54 | ND | ND | 0.51 | 0.45 | 0.35 | ND | ND | ND | | | 0.22 | ND | 0.83 | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 1.09 | 5.0 |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 0.4 |
| Ethylbenzene | ND | 1.2 | ND | ND | 0.6 | ND | ND | 1.9 | 0.95 | 0.44 | ND | ND | ND | | | ND | ND | 1.3 | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.26 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | ND | 0.5 | ND | ND | 0.48 | 0.43 | 0.42 | 0.62 | 0.53 | 0.4 | 0.35 | 0.48 | ND | | | ND | ND | 0.48 | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.17 | 5.0 |
| p-Isopropyltoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Methylene chloride | ND | ND | ND | ND | ND | ND | 0.21 | ND | ND | ND | ND | ND | ND | | | ND | ND | 0.77 | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.34 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | |
| Naphthalene | ND | 1.2 | ND | ND | 0.42 | ND | ND | 1 | 0.5 | ND | ND | ND | ND | | | ND | ND | 0.41 | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.10 | 10.0 |
| n-Propylbenzene | ND | ND | ND | ND | ND | ND | ND | 0.46 | 0.24 | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.02 | 5.0 |
| Styrene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.04 | 5.0 |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.07 | 5.0 |
| Toluene | ND | ND | ND | ND | ND | ND | ND | ND | 0.22 | ND | ND | ND | ND | | | ND | 0.43 | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.04 | 5.0 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | 0.81 | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.02 | 5.0 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.06 | 5.0 |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 1.0 |
| Trichloroethene | 1.2 | 2.6 | 2.9 | 1.9 | 3.9 | 1.9 | 1.6 | 2.2 | 2.1 | 2.2 | 1.1 | 1.2 | 0.54 | | | 1.5 | 0.73 | 2.9 | 1.1 | ND | | 1.2 | ND | ND | 1.1 | 0.78 | ND | ND | ND | ND | - | 2.0 | ND | 1.74 | 5.0 |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.05 | 5.0 |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.00 | |
| Vinyl chloride | ND | 1.5 | 3.1 | 1.9 | 4.6 | 1.3 | 1.4 | 3.6 | 3 | 1.9 | 0.37 | 0.7 | 0.3 | | | 0.98 | 0.66 | 6.8 | ND | ND | | 0.9 | ND | 5.6 | 0.48 | ND | ND | ND | ND | 1.4 | - | 8.1 | ND | 1.90 | 2.0 |
| o-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.03 | 5.0 |
| p-Xylene & m-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | ND | ND | 0.05 | 5.0 |

MW-11B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | | | 3.2 | | | | ND | | | ND | | | | | | ND | | | | 0.06 | 0 | - | 0.07 | - | - | - | - | 0.0369 | - | - | - | 0.60 | |
| Calcium | | 40.8 | | 21.5 | 46.2 | 23.2 | | 57.6 | 55.5 | 34.4 | | 26.9 | | | | | | 70.2 | 15.6 | 45 | | 18.5 | 14.9 | 55.6 | 13.6 | - | 18.8 | - | - | 19 | - | 62.4 | - | 25.63 | |
| Iron | | 28.1 | | 16.3 | 23.6 | 9.6 | | 26 | 22.4 | 13.1 | | 12.6 | | | | | | 23.8 | 4.5 | 18 | | 9.5 | 11.5 | 20.2 | 8.52 | - | 8.73 | - | - | 5.9 | - | 2.98 | - | 15.29 | 0.3 |
| Magnesium | | 15.9 | | 6.58 | 16.2 | 6.8 | | 20.7 | 23.6 | 12.4 | | 7.8 | | | | | | 32.6 | 4.8 | 16 | | 5.9 | 4.9 | 21.5 | 4.3 | - | 5.2 | - | - | 5.69 | - | 24.4 | - | 9.06 | 35.0 |
| Manganese | | 11.2 | | 9.41 | 14.8 | 9.4 | | 12.9 | 13.9 | 10.7 | | 11.9 | | | | | | 16.6 | 7.5 | 16 | | 9.31 | 8.09 | 20 | 7.69 | - | 9.89 | - | - | 8.89 | - | ND | - | 8.15 | 0.3 |
| Potassium | | 4.1 | | 2.21 | 4.3 | 1.7 | | 4.2 | 4.6 | 2.6 | | 1.6 | | | | | | 4.8 | 1.6 | 2.3 | | 1.3 | ND | 3 | 1.1 | - | ND | - | - | 2.12 | - | 2.82 | - | 2.47 | |
| Sodium | | 8.7 | | 1.31 | 7.4 | 2.1 | | 10.5 | 11.7 | 4.9 | | 2.1 | | | | | | 13.3 | 1.1 | 6.2 | | 1.2 | ND | 7.5 | 0.8 | - | 1.3 | - | - | 3.11 | - | 11.2 | - | 3.91 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | ND | | | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | - | 0.00 | 0.003 |
| Arsenic | | | | | 0.02 | | | | 0.02 | | | 0.02 | | | | | | ND | | | | 0.01 | - | - | 0.014 | - | - | - | - | 0.0069 | - | - | - | 0.01 | 0.025 |
| Barium | | | | | 0.37 | | | | 0.4 | | | 0.18 | | | | | | 0.48 | | | | 0.206 | - | - | 0.149 | - | - | - | - | 0.158 | - | - | - | 0.15 | 1.0 |
| Beryllium | | | | | ND | | | | ND | | | ND | | | | | | ND | | | | 0.0003 | - | - | ND | - | - | - | - | ND | - | - | - | 0.00 | |
| Cadmium | | ND | | ND | ND | ND | | ND | ND | ND | | ND | | | | | | ND | ND | ND | | ND | ND | ND | ND | - | ND | - | - | ND | - | ND | - | 0.00 | 0.005 |
| Chromium (Total) | | | | | 0.01 | | | | ND | | | ND | | | | | | ND | | | | 0.002 | - | - | 0.003 | - | - | - | - | 0.003 | - | - | - | 0.00 | 0.05 |
| Copper | | | | | ND | | | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | - | 0.00 | 0.2 |
| Lead | | 0.003 | | ND | ND | ND | | ND | ND | ND | | ND | | | | | | 0.006 | ND | 0.001 | | 0.001 | ND | ND | ND | - | ND | - | - | 0.0017 | - | 0.0034 | - | 0.00 | 0.025 |
| Mercury | | | | | ND | | | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | - | 0.00 | 0.0007 |
| Nickel | | | | | 0.03 | | | | ND | | | ND | | | | | | ND | | | | 0.013 | - | - | 0.013 | - | - | - | - | 0.0106 | - | - | - | 0.04 | 0.1 |
| Selenium | | ND | | ND | ND | ND | | ND | ND | ND | | ND | | | | | | ND | | | | 0.007 | - | - | ND | - | - | - | - | ND | - | - | - | 0.00 | 0.0 |
| Silver | | | | | ND | | | | ND | | | ND | | | | | | ND | | | | ND | - | - | 0.001 | - | - | - | - | ND | - | - | - | 0.00 | 0.05 |
| Thallium | | | | | ND | | | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | - | 0.00 | 0.0005 |
| Zinc | | | | | 0.02 | | | | 0.03 | | | 0.07 | | | | | | 0.02 | | | | 0.035 | - | - | 0.046 | - | - | - | - | 0.977 | - | - | - | 0.08 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | 205 | | 90 | 175 | 67.1 | | 229 | 218 | 150 | | 62.5 | | | | | | 374 | | 210 | | - | - | 299 | - | - | 80.8 | - | - | 179 | - | 264 | - | 110.1 | |
| Biochemical Oxygen Demand | | | | | ND | | | | 4.9 | | | 4.5 | | | | | | 12.2 | | 11 | | - | - | - | - | - | 4.1 | - | - | 9.6 | - | 7.6 | ND | 4.1 | |
| Boron | | | | | 0.07 | | | | 0.09 | | | 0.02 | | | | | | 0.1 | | | | ND | - | - | - | - | - | - | - | 0.0125 | - | - | - | 0.0 | 1.0 |
| Chemical Oxygen Demand | | 28.8 | 298 | 18 | 54.8 | 18.5 | | 29.8 | 28 | 23.4 | | 16 | | | | | | 19.4 | 23.8 | 32 | | 12.6 | - | 27.6 | - | - | 22.8 | - | 58.8 | 62.9 | - | 84.9 | - | 29.2 | |
| Chromium (Hexavalent) | | | | | ND | | | | ND | | | ND | | | | | | ND | | | | ND | - | - | - | - | - | - | - | ND | - | - | - | 0.0 | 0.05 |
| Chloride | | 12.7 | | 2.2 | 12.2 | 1.8 | | 14.1 | 17.8 | 5.3 | | 3.8 | | | | 4.88 | | 16.8 | ND | 9.48 | | ND | - | 10.5 | - | - | ND | - | - | 6.4 | - | 10.8 | 48.8 | 6.0 | 250.0 |
| Color (PCU units) | | | | | 60 | | | | 80 | | | 60 | | | | | | 200 | | | | - | - | - | - | - | - | - | - | 10 | - | - | - | 27.4 | 15.0 |
| Nitrate-Nitrite | | ND | 0.04 | ND | ND | ND | | ND | ND | ND | | ND | | | | | | ND | | ND | | ND | - | ND | - | - | ND | - | ND | 0.046 | - | ND | - | 0.1 | 10.0 |
| Nitrogen-Ammonia | | 3.55 | 0.8 | 0.5 | 1.1 | 0.56 | | 2.8 | 2.6 | 1.6 | | 0.71 | | | | | | 4 | 0.36 | 2.1 | | 0.369 | - | 1.87 | - | - | 0.482 | - | 0.78 | 2.1 | - | 3.1 | - | 1.1 | 2.0 |
| Phenols | | 0.0157 | | ND | 0.028 | ND | | 0.01 | 0.01 | ND | | ND | | | | ND | | ND | | | | ND | - | 0.0073 | - | - | ND | - | - | 0.0099 | - | 0.0172 | - | 0.0 | 0.001 |
| Sulfate | | 5.9 | | 5.8 | 4.6 | 5.9 | | 4.1 | 3.2 | 5.1 | | 5.2 | | | | 5.15 | | 6.7 | 4.1 | ND | | 2.5 | - | 4.3 | - | - | 3.3 | - | - | 3.3 | - | 2.5 | 2.5 | 5.8 | 250.0 |
| Total Organic Carbon (TOC) | | 6.1 | 17 | 4 | 62.9 | 5 | 4.1 | 6.2 | 6.8 | 4.6 | 10.8 | 3 | | | | 3.4 | | 9 | 1.4 | | | 7.1 | - | 8.9 | - | - | 4.6 | - | 5.7 | 3.1 | 14.6 | 20 | 5 | 7.3 | |
| Total Dissolved Solids (TDS) | | 262 | | 125 | 283 | 99 | | 304 | 402 | 174 | | 190 | | | | | | 388 | | 280 | | 115 | - | 320 | - | - | 96 | - | - | 170 | - | 315 | 87 | 147.0 | 500.0 |
| Total Hardness | | 167 | | 81 | 182 | 85.9 | | 229 | 236 | 137 | | 99.3 | | | | | | 310 | 58.6 | 180 | | 70.6 | 57.1 | 227 | - | - | 68.5 | - | - | 88 | - | 290 | - | 103.5 | |
| Total Kjeldahl Nitrogen (TKN) | | | 14 | | 4.3 | | | | 3.9 | | | 1.1 | | | | | | 2.2 | | 2.09 | | 0.85 | - | - | - | - | - | - | 1.1 | 3.8 | - | 5.7 | - | 2.2 | |
| Turbidity (NTU units) | | 24 | | 61 | 49.1 | 89.4 | | 36.9 | 56 | 21.3 | | 28 | | 5 | 7 | 267 | 6 | 5 | 36.1 | 29 | 12.8 | 16.1 | - | 19.5 | 27.6 | 35.7 | 11.3 | 41.2 | 15 | 6.2 | 107 | 62.3 | 32.5 | 62.1 | 5.0 |
| Cyanide | | | | | ND | | | | ND | | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | ND | - | - | - | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected.
<DL = Detected below method detection limit.
J = Estimated.
B = Analyte was detected in method blank.

MW-12A
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.21 | 2.14 | 1.59 | 5.0 | 2.0 | 4.0 | 2.0 | | 19.0 | | 0.8 | | 4 | | 0.8 | | 2 | | 2 | | | | 1 | | 2 | | | | 2 | 1 | 2 | | 1 | | 4.76 |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Bromodichloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| sec-Butylbenzene | 0.17 | 0.10 | 0.23 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| tert-Butylbenzene | ND | 0.29 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Chlorobenzene | 0.14 | 0.51 | 0.29 | ND | ND | ND | ND | | 0.8 | | ND | | 0.7 | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | 2.05 |
| Chloroethane | ND | ND | 3.41 | 5.0 | 2.0 | 5.0 | ND | | ND | | ND | | 2 | | ND | | 1 | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Chloroform | ND | 1.34 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | ND | ND | ND | ND | ND | ND | | 8.0 | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Dibromochloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | ND | ND | ND | ND | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,2-Dichlorobenzene | ND | <DL | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | 1 | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | 4 | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,4-Dichlorobenzene | 4.99 | 7.20 | 2.59 | 5.0 | 4.0 | 3.0 | 1.0 | | 2.0 | | 0.7 | | ND | | 0.8 | | 3 | | 5 | | | | 0.9 | | 0.6 | | | | 1 | 2 | 1 | | 0.8 | | 1.94 |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | ND | ND | ND | ND | ND | ND | | 2.0 | | ND | | ND | | ND | | ND | | 1 | | | | ND | | ND | | | | ND | ND | ND | | 0.6 | | ND |
| 1,1-Dichloroethane | 2.13 | 1.85 | 1.75 | 2.0 | ND | 3.0 | 2.0 | | 5.0 | | 2.0 | | 2 | | 1 | | 5 | | ND | | | | 2 | | 2 | | | | 2 | 2 | 2 | | 1 | | 1.69 |
| 1,2-Dichloroethane | 0.33 | 0.31 | 0.12 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | 3 | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| cis-1,2-Dichloroethene | <DL | 9.28 | 3.51 | 4.0 | 3.0 | 4.0 | 1.0 | | 16.0 | | 0.9 | | 2 | | 0.7 | | 8 | | 6 | | | | 2 | | 3 | | | | 6 | 4 | 4 | | 3 | | 4.91 |
| trans-1,2-Dichloroethene | 6.88 | 0.51 | 0.86 | 1.0 | ND | ND | ND | | 1.0 | | ND | | 0.8 | | ND | | 0.6 | | ND | | | | ND | | 0.5 | | | | ND | ND | ND | | ND | | ND |
| 1,2-Dichloropropane | ND | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| cis-1-3-Dichloropropene | ND | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | ND | | 3.0 | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Ethylbenzene | 0.27 | 0.90 | 0.24 | 2.0 | ND | 2.0 | ND | | 1.0 | | ND | | 1 | | ND | | 0.6 | | 0.5 | | | | ND | | 0.8 | | | | ND | ND | ND | | ND | | 1.92 |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | <DL | 4.52 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | 1.04 |
| p-Isopropyltoluene | ND | 0.34 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | 2 | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Methylene chloride | <DL | 0.12 | ND | 3.0 | 2.0 | 2.0 | 2.0 | | 1.0 | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | 0.06 | ND | ND | ND | ND | ND | ND | | 1.0 | | ND | | ND | | ND | | ND | | 7 | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| n-Propylbenzene | ND | 0.10 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Styrene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,1,2,2-Tetrachloroethane | ND | <DL | 0.15 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Tetrachloroethene | 0.35 | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Toluene | ND | <DL | ND | ND | ND | 1.0 | ND | | 0.8 | | ND | | 1* | | ND | | 0.9 | | ND | | | | 3 | | ND | | | | ND | ND | ND | | ND | | 1.73 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,2,4-Trichlorobenzene | ND | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Trichloroethene | 0.81 | <DL | <DL | ND | 1.0 | ND | ND | | 1.0 | | ND | | ND | | ND | | 0.6 | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | 1.2 |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,2,3-Trichloropropane | ND | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,2,4-Trimethylbenzene | <DL | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | 33 | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| 1,3,5-Trimethylbenzene | 0.09 | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | 6 | | | | ND | | ND | | | | ND | ND | ND | | ND | | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | ND | 0.80 | ND | ND | ND | ND | | 23.0 | | ND | | 1 | | ND | | 3 | | 4 | | | | 2 | | 3 | | | | 2 | 3 | 3 | | 2 | | ND |
| o-Xylene | 0.16 | 0.32 | 0.56 | | ND | | | | | | | | | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | 1.25 |
| p-Xylene & m-Xylene | | | | ND | ND | | | | 1.1 | | ND | | ND | | ND | | ND | | ND | | | | ND | | ND | | | | ND | ND | ND | | ND | | 2.56 |

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HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 0.15 | | | | 0.3 | | | | 0.09 | | | | 1.39 | | | | 1.84 | | | | | | | | | | | | | | | | | | |
| Calcium | 78.3 | 55.9 | 70.3 | 67.5 | 88.9 | 56.3 | 71.4 | 85.2 | 113 | 97.3 | 80.3 | | 77 | 109 | 87.5 | 92.6 | 97.2 | 103 | 81.5 | 92 | | 112 | 104 | | 96.0 | | | | 107 | | 122 | | 96.5 | | 104 |
| Iron | 49.4 | 34.2 | 9.2 | 21.8 | 37.4 | 16.0 | 9.0 | 13.3 | 24.3 | 24.5 | 7.99 | | 13.4 | 26.1 | 4.83 | 14.8 | 28.1 | 25.9 | 11.5 | 16.1 | | 55.7 | 10.9 | | 12.2 | | | | 47.4 | | 27 | | 25.9 | | 37.8 |
| Magnesium | 7.9 | 7 | 9.5 | 10.4 | 11.6 | 8.0 | 8.3 | 12.2 | 13.3 | 11.8 | 10.3 | | 10.7 | 11.6 | 10.8 | 11.8 | 11.4 | 10.5 | 8.39 | 12.4 | | 10.3 | 13.7 | | 11.6 | | | | 10.9 | | 11.8 | | 10.7 | | 11.9 |
| Manganese | 11.3 | 10.9 | 8.87 | 8.78 | 9.62 | 7.43 | 6.23 | 7.64 | 9.53 | 7.79 | 5.38 | | 6.51 | 9.18 | 5.39 | 7.84 | 7.71 | 7.88 | 7.01 | 7.39 | | 8.34 | 6.58 | | 7.58 | | | | 7.32 | | 8.46 | | 7.24 | | 9.31 |
| Potassium | 2.6 | 2.9 | 3.3 | 3 | 3.5 | 2.8 | 2.8 | 3.0 | 8.52 | 3.22 | 1.6 | | 2.38 | 3.25 | 2.51 | 2.43 | 2.88 | 2.7 | 2.2 | 2.54 | | 3.61 | 2.07 | | 3.27 | | | | 3.49 | | 3.33 | | 2.27 | | 3.22 |
| Sodium | 11.2 | 6.9 | 12.7 | 18.1 | 17.9 | 15.2 | 12.4 | 18.7 | 19.2 | 17.0 | 15.4 | | 17.9 | 10 | 13.3 | 14 | 0.82 | 10.4 | 8.09 | 14.1 | | 7.86 | 12.6 | | 10.9 | | | | 5.82 | | 6.27 | | 6.4 | | 6.88 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | | | ND | | | | 0.05 | | | | ND | | | | 0.04 | | | | | | | | | | | | | | | | | | |
| Arsenic | <DL | | | | 0.050 | | | | 0.031 | | | | 0.042 | | | | 0.038 | | | | | | | | | | | | | | | | | | |
| Barium | 1.44 | 1.59 | 1.37 | 1.53 | 1.39 | 1.28 | 1.12 | 1.58 | 1.63 | 1.41 | 1.4 | | 1.47 | 1.45 | 1.22 | 1.52 | 1.58 | 1.23 | 1.08 | 1.57 | | 1.82 | 1.72 | | 1.31 | | | | 1.49 | | 1.6 | | 1.57 | | 1.75 |
| Beryllium | | | | | ND | | | | ND | | | | ND | | | | ND | | | | | | | | | | | | | | | | | | |
| Cadmium | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | | | | ND | | ND | | ND | | ND |
| Chromium (Total) | <DL | | | | 0.01 | | | | ND | | | | 0.02 | | | | 0.02 | | | | | | | | | | | | | | | | | | |
| Copper | ND | | | | ND | | | | ND | | | | ND | | | | 0.01 | | | | | | | | | | | | | | | | | | |
| Lead | ND | ND | ND | ND | ND | ND | 0.010 | 0.007 | ND | 0.001 | 0.004 | | 0.019 | 0.003 | 0.002 | 0.003 | 0.011 | ND | 0.020 | 0.003 | | ND | ND | | 0.001 | | | | 0.002 | | ND | | 0 | | ND |
| Mercury | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | | | | | | | | | | | | | | | | |
| Nickel | 0.05 | | | | ND | | | | ND | | | | 0.04 | | | | 0.64 | | | | | | | | | | | | | | | | | | |
| Selenium | 0.014 | <DL | 0.01 | ND | ND | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | | | | ND | | ND | | ND | | ND |
| Silver | 0.08 | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | | 0.007 | ND | | ND | | | | ND | | ND | | ND | | ND |
| Thallium | 0.1 | | | | ND | | | | ND | | | | ND | | | | ND | | | | | | | | | | | | | | | | | | |
| Zinc | <DL | | | | 0.05 | | | | 0.06 | | | | 0.06 | | | | 0.08 | | | | | | | | | | | | | | | | | | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 309 | 259 | 278 | 299 | 420 | 326 | 449 | 236 | 366 | 316 | 297 | | | 357 | 332 | 344 | | 424 | 321 | | | 384 | 322 | | 355 | | | | 423 | | 400 | | 355 | | 353 |
| Biochemical Oxygen Demand | 55.0 | | | | 4 | | | | 15.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boron | ND | | | | 0.12 | | | | 0.02 | | | | 0.08 | | | | ND | | | | | | | | | | | | | | | | | | |
| Chemical Oxygen Demand | 29.1 | 20 | 15 | ND | ND | 16.0 | ND | 31.0 | 19.8 | 77.2 | 19.1 | | 13.2 | 33.8 | 18.5 | ND | | 12.4 | 12 | | | 51.8 | ND | | 29.4 | | | | 40.6 | | 43.4 | | | | 37.4 |
| Chromium (Hexavalent) | <DL | | | | ND | | | | ND | | | | | | | | ND | | | | | | | | | | | | | | | | | | |
| Chloride | 4.1 | 7 | 10.8 | 5 | 3 | 7.0 | ND | 13.0 | 6.13 | 3.9 | 3.76 | | | 2.98 | 2.97 | 136 | | ND | ND | | | 4.66 | 3.70 | | 1.84 | | | | 2.42 | | ND | | | | 8.42 |
| Color (PCU units) | 55.0 | | | | ND | | | | 125 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate-Nitrite | 0.1 | 20.1 | <DL | ND | ND | ND | ND | 0.2 | 1.63 | 1.8 | ND | | | ND | ND | ND | | ND | ND | | | ND | ND | | ND | | | | ND | | ND | | | | ND |
| Nitrogen-Ammonia | 2.9 | <DL | 0.9 | ND | 3.4 | 1.3 | 2.6 | 7.0 | 2.6 | 2.5 | 3.07 | | 2.79 | 1.8 | 2.4 | 2.54 | | 2.19 | 7.02 | | | 3.96 | 1.26 | | 1.51 | | | | 0.715 | | ND | | | | 4.47 |
| Phenols | 0.003 | ND | 0.014 | ND | ND | ND | ND | ND | ND | ND | ND | | 0.008 | 0.005 | 0.009 | ND | | 0.070 | ND | | | 0.025 | 0.007 | | 0.013 | | | | 0.001 | | 0.01 | | | | 0.0203 |
| Sulfate | 5.5 | 6.7 | 2.6 | ND | ND | 12.0 | ND | ND | 16.0 | 18.0 | ND | | | | ND | ND | | ND | ND | | | ND | ND | | ND | | | | ND | | ND | | 11 | | ND |
| Total Organic Carbon (TOC) | 11.3 | 8 | 8.5 | 4 | 5 | 6.0 | 4.0 | 16.0 | 6.5 | 14.6 | 3.4 | | | 5.5 | 6.3 | 4.3 | | 4.3 | 6.2 | | | 7.8 | 6.6 | | 4.9 | | | | 9.9 | | 13 | | | | 8.8 |
| Total Dissolved Solids (TDS) | 312 | 598 | 316 | 286 | 448 | 314 | 335 | 262 | 375 | 337 | 293 | | | 356 | 218 | 353 | | 377 | 311 | | | 360 | 360 | | 383 | | | | 406 | | 410 | | 380 | | 405 |
| Total Hardness | 242 | 168 | 215 | 211 | 270 | 174 | 212 | 263 | 336 | 267 | 316 | | | 510 | 374 | 328 | | 300 | 238 | | | 322 | 316 | | 287 | | | | 312 | | 353 | | 285 | | 309 |
| Total Kjeldahl Nitrogen (TKN) | 3.2 | | | | 4.1 | | | | 2.14 | | | | 4.2 | | | | | | | | | | | | | | | | | | | | | | |
| Turbidity (NTU units) | 36 | 900 | 270 | 340 | 231 | 17.0 | 45 | 182 | 110 | 40 | 140 | | | 110 | 15 | 21 | | 78 | 78 | | | 200 | 90 | | 30 | | | | 60 | | 32 | | | | 46 |
| Cyanide | <DL | | | | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |

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HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | 18 | 19 | 8.4 | 12 | 13 | 5.9 | 29 | 21 | 11 | 20 | | 6.4 | 32 | 19 | | 6.4 | - | ND | 11 | - | ND | - | - | 12.8 | 48.3 | 20.2 | 7.6 | 12.84 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Benzene | | 2.1 | 5 | 2.6 | 7 | 4.6 | 7.1 | 6.3 | 13 | 6.3 | 4 | 7 | 4.1 | 1.6 | 1.5 | 4.5 | | 7.7 | 7.8 | 6.2 | | 6.3 | - | 7.1 | 5.1 | - | 6.6 | - | - | 7.2 | ND | 5.7 | 5.2 | 4.02 | 1.0 |
| Bromobenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromoform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | 1.2 | ND | 1.4 | ND | 3.6 | 1.2 | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.30 | 50.0 |
| n-Butylbenzene | | ND | ND | ND | ND | ND | ND | ND | 0.22 | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | | ND | ND | ND | 0.37 | ND | ND | ND | 0.54 | ND | ND | 0.28 | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.03 | 5.0 |
| tert-Butylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.01 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | 0.49 | ND | 0.28 | 0.66 | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.06 | 60.0 |
| Carbon tetrachloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | | 0.57 | 1.7 | 0.8 | 2.5 | 1.4 | 3.8 | 4 | 13 | 3.9 | 2.5 | 6.4 | 3 | 1.1 | 1.1 | 2.8 | | 7.4 | 6.7 | 5.1 | | 5.6 | - | 6.2 | 4.3 | - | 8.7 | - | - | 11.2 | ND | 6.1 | 8.1 | 2.45 | 5.0 |
| Chloroethane | | 0.54 | ND | ND | 2.3 | 1.2 | 1 | 0.94 | 1.1 | 0.66 | 0.48 | 0.66 | 0.65 | 0.61 | ND | 0.53 | | 0.55 | 0.44 | ND | | 0.74 | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.62 | 5.0 |
| Chloroform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.03 | 7.0 |
| Chloromethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.16 | 5.0 |
| 2-Chlorotoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | | ND | ND | ND | ND | ND | ND | ND | 0.57 | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | 0.29 | - | ND | 0.21 | - | ND | - | - | ND | ND | ND | ND | 0.04 | 3.0 |
| 1,3-Dichlorobenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | ND | - | 0.08 | 3.0 |
| 1,4-Dichlorobenzene | | 0.77 | 1.5 | ND | 2 | 0.9 | 1.9 | 2.1 | 5.1 | 1.8 | 2.9 | 3.3 | 4.4 | 3.1 | 0.88 | 2.3 | | 2.4 | 2.9 | ND | | 2.3 | - | ND | ND | - | ND | - | - | ND | ND | 2.6 | ND | 1.81 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | | ND | ND | ND | 1.2 | 1 | 1 | 1.1 | ND | 0.98 | 0.98 | 1.2 | ND | 0.86 | ND | 0.82 | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | 18.6 | - | ND | - | 0.63 | 5.0 |
| 1,1-Dichloroethane | | ND | 0.8 | 0.9 | 0.86 | 1.1 | 1.4 | 1.2 | 0.98 | 1.1 | 2.6 | 0.95 | 1.8 | 0.47 | ND | 0.84 | | 1 | 0.68 | ND | | 0.8 | - | ND | 0.52 | - | ND | - | - | ND | ND | ND | ND | 1.17 | 5.0 |
| 1,2-Dichloroethane | | ND | ND | ND | ND | ND | ND | 0.37 | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.02 | 0.6 |
| 1,1-Dichloroethene | | 1.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.08 | 5.0 |
| cis-1,2-Dichloroethene | | 3.1 | 5.2 | 3.3 | 7.2 | 4.3 | 5 | 4.6 | 5.4 | 4.5 | 3.1 | 4.4 | 3.6 | 1.9 | 1 | 4 | | 4.3 | 3.7 | ND | | 4 | - | ND | 3.2 | - | ND | - | - | ND | ND | 3.6 | ND | 3.29 | 5.0 |
| trans-1,2-Dichloroethene | | ND | ND | ND | 0.46 | 0.46 | 0.59 | 0.44 | 0.43 | 0.54 | 0.92 | 0.37 | 0.7 | ND | ND | 0.33 | | ND | ND | ND | | 0.4 | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.36 | 5.0 |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.06 | 0.4 |
| Ethylbenzene | | ND | ND | ND | 0.57 | ND | 1.2 | 3 | 10 | 1.3 | 0.67 | 4.4 | 0.28 | ND | ND | ND | | 5.1 | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.76 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | | ND | ND | ND | 1.3 | 0.47 | 0.79 | 0.48 | 1.6 | 0.61 | 0.51 | 0.76 | 0.42 | ND | ND | 0.54 | | 0.82 | 0.86 | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.29 | 5.0 |
| p-Isopropyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.05 | 5.0 |
| Methylene chloride | | ND | ND | ND | ND | ND | 0.37 | 0.28 | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.22 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | |
| Naphthalene | | ND | ND | ND | ND | ND | ND | 0.41 | 1.6 | ND | ND | 0.48 | ND | ND | ND | ND | | 1.1 | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.23 | 10.0 |
| n-Propylbenzene | | ND | ND | ND | ND | ND | ND | ND | 1.1 | 0.29 | ND | 0.49 | ND | ND | ND | ND | | 0.59 | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.05 | 5.0 |
| Styrene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.01 | 5.0 |
| Toluene | | ND | ND | ND | 0.74 | ND | 2.2 | 0.34 | 1.3 | ND | 0.46 | 0.47 | 0.25 | ND | ND | ND | | 0.48 | ND | ND | | 0.38 | - | ND | 0.4 | - | ND | - | - | ND | ND | ND | ND | 0.29 | 5.0 |
| 1,2,3-Trichlorobenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | | ND | ND | ND | 0.41 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.01 | 5.0 |
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 1.0 |
| Trichloroethene | | ND | 0.9 | 0.5 | 0.93 | 0.64 | 0.7 | 0.61 | ND | 0.67 | ND | 0.69 | 0.32 | 0.36 | ND | 0.37 | | 0.61 | 0.5 | ND | | 0.51 | - | ND | 0.26 | - | ND | - | - | ND | ND | ND | ND | 0.26 | 5.0 |
| Trichlorofluoromethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | 0.42 | 0.82 | ND | ND | 0.67 | ND | ND | ND | ND | | 3.6 | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.77 | 5.0 |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | 0.45 | ND | ND | | ND | - | ND | ND | - | - | - | - | - | - | - | - | 0.13 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.00 | |
| Vinyl chloride | | 0.98 | 3.9 | 3.1 | 3.9 | 2.9 | 2.5 | 3.2 | 2.6 | 2.3 | 1.9 | 2.7 | 2.5 | 0.78 | 0.21 | 1.5 | | 2.5 | 1.5 | ND | | 3.1 | - | ND | 1.5 | - | ND | - | - | 2.9 | ND | 1.7 | ND | 1.90 | 2.0 |
| o-Xylene | | ND | ND | ND | ND | ND | ND | 0.4 | ND | ND | ND | 0.41 | ND | ND | ND | ND | | 0.58 | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | ND | ND | 0.08 | 5.0 |
| p-Xylene & m-Xylene | | ND | ND | ND | ND | ND | ND | 1.7 | ND | 0.22 | 0.17 | 2.6 | ND | ND | ND | ND | | 6.9 | ND | ND | | ND | - | ND | ND | - | ND | - | - | ND | ND | 1.2 | ND | 0.37 | 5.0 |

MW-12A
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | 0.11 | | ND | | ND | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | 0.016 | - | - | - | 0.17 | |
| Calcium | | 86.4 | 70.4 | 114 | 108 | 94.8 | 88 | 114 | 91 | 89.2 | | 106 | | | | | | 109 | 72.9 | | | 80.1 | - | 90.3 | 102 | - | 77.9 | - | - | 112 | - | 118 | - | 81.39 | |
| Iron | | 26.3 | 30.9 | 21.5 | 45.6 | 30.9 | 33.5 | 33.9 | 40.6 | 33.8 | | 33.3 | | | | | | 30.4 | 29.7 | | | 30.9 | - | 32 | 29.8 | - | 33.8 | - | - | 42.4 | - | 35 | - | 23.98 | 0.3 |
| Magnesium | | 10.7 | 9.32 | 13.5 | 11.9 | 12.4 | 11.7 | 14.1 | 23.6 | 12.6 | | 15.3 | | | | | | 17.4 | 11.3 | | | 13.3 | - | 14.7 | 14.6 | - | 12.7 | - | - | 14.3 | - | 14.5 | - | 10.53 | 35.0 |
| Manganese | | 8.21 | 9.49 | 8.31 | 9.5 | 10.6 | 1.1 | 10.3 | 13.9 | 12.9 | | 15.3 | | | | | | 17 | 12 | | | 17.1 | - | 16.1 | 11.5 | - | 17.4 | - | - | 12.4 | - | 7.92 | - | 8.36 | 0.3 |
| Potassium | | 2.54 | 3.53 | 2.18 | 4.3 | 2.6 | 3.5 | 2.9 | 4.6 | 3.5 | | 4.1 | | | | | | 3.8 | 4.5 | | | 3.8 | - | 3.8 | 3.9 | - | 4.7 | - | - | 6.74 | - | 3.35 | - | 2.95 | |
| Sodium | | 5.7 | 5.85 | 7.68 | 6.2 | 6.8 | 7 | 8.1 | 11.7 | 7.6 | | 8.8 | | | | | | 9.5 | 7.2 | | | 7.8 | - | 6.8 | 7.2 | - | 6.5 | - | - | 10.4 | - | 6.92 | - | 8.96 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | ND | | ND | | ND | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | - | 0.00 | 0.003 |
| Arsenic | | | ND | | 0.06 | | 0.07 | | 0.06 | | | 0.03 | | | | | | 0.047 | | | | 0.042 | - | - | 0.068 | - | - | - | - | 0.056 | - | - | - | 0.03 | 0.025 |
| Barium | | 1.52 | 1.92 | | 2 | 1.8 | 1.9 | 1.7 | 2.2 | | | 1.9 | | | | | | 1.9 | | | | 1.77 | - | - | 1.59 | - | - | - | - | 1.78 | - | - | - | 1.28 | 1.0 |
| Beryllium | | | ND | | ND | | ND | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | - | 0.00 | |
| Cadmium | | ND | ND | ND | ND | ND | ND | ND | ND | | | ND | | | | | | ND | ND | | | ND | - | ND | ND | - | ND | - | - | 6E-04 | - | ND | - | 0.00 | 0.005 |
| Chromium (Total) | | | ND | ND | ND | | ND | | ND | | | ND | | | | | | ND | | | | 0.003 | - | - | 0.003 | - | - | - | - | 0.022 | - | - | - | 0.00 | 0.05 |
| Copper | | | ND | | ND | | ND | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | 0.004 | - | - | - | 0.00 | 0.2 |
| Lead | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | | | | | ND | ND | | | 0.001 | - | ND | ND | - | ND | - | - | 0.003 | - | 0.003 | - | 0.00 | 0.025 |
| Mercury | | | ND | | ND | | ND | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | - | 0.00 | 0.0007 |
| Nickel | | | ND | | ND | | ND | | ND | | | ND | | | | | | ND | | | | 0.007 | - | - | 0.003 | - | - | - | - | 0.006 | - | - | - | 0.03 | 0.1 |
| Selenium | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | | | | | ND | | | | 0.009 | - | - | 0.004 | - | - | - | - | ND | - | - | - | 0.00 | 0.0 |
| Silver | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | | | | | | ND | | | | 0.003 | - | - | 0.003 | - | - | - | - | ND | - | - | - | 0.00 | 0.05 |
| Thallium | | | ND | | ND | | ND | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | - | 0.00 | 0.0005 |
| Zinc | | | ND | | ND | | ND | | ND | | | 0.2 | | | | | | 0.012 | | | | 0.004 | - | - | 0.01 | - | - | - | - | 0.024 | - | - | - | 0.02 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | 319 | 410 | 350 | 42.9 | 211 | 430 | 407 | 242 | 206 | | 191 | | | | 185 | | 467 | 252 | 320 | | 349 | - | 377 | - | - | 315 | - | - | 380 | - | - | - | 273.0 | |
| Biochemical Oxygen Demand | | | 11 | | 15.9 | | 4.7 | | 8.9 | | | 4.5 | | | | | | 8.6 | | 16 | | - | - | - | - | - | 7.9 | - | - | 9.6 | - | 8.1 | 14.4 | 8.3 | |
| Boron | | | ND | | 0.09 | | 0.09 | | 0.12 | | | 0.1 | | | | | | 0.11 | | | | 0.11 | - | - | 0.07 | - | - | - | - | 0.118 | - | - | - | 0.0 | 1.0 |
| Chemical Oxygen Demand | | 26.5 | 38 | 34 | 61 | 31.6 | 55.9 | 48.6 | 61.3 | 46.7 | | 33.6 | | | | | | 36.4 | 50.6 | 41 | | 22.1 | - | 38.8 | 36.2 | - | 52.9 | - | - | 75.4 | - | 101 | - | 28.8 | |
| Chromium (Hexavalent) | | | ND | | ND | | ND | | ND | | | ND | | | | | | ND | | | | ND | - | - | ND | - | - | - | - | ND | - | - | - | 0.0 | 0.05 |
| Chloride | | 4.41 | 5.1 | 2.5 | 3 | 2.2 | 8.2 | 6.6 | 8.7 | 5.5 | | 6.6 | | | | 3.48 | | 8.2 | 3.8 | 5.97 | | 4.9 | - | 4.4 | 3.4 | - | 4.4 | - | - | 10.5 | - | 6.1 | 7.1 | 7.0 | 250.0 |
| Color (PCU units) | | | 20 | | 140 | | 140 | | 200 | | | 120 | | | | | | 200 | | | | - | - | - | - | - | - | - | - | 25 | - | - | - | 48.8 | 15.0 |
| Nitrate-Nitrite | | ND | ND | ND | ND | ND | 0.07 | ND | ND | ND | | ND | | | | | | ND | ND | ND | | ND | - | ND | ND | - | ND | - | - | 0.065 | - | 0.097 | - | 0.5 | 10.0 |
| Nitrogen-Ammonia | | 2.54 | 4.1 | 2 | 1.3 | 1.4 | 4.3 | 1.8 | 4.5 | 3.2 | | 3.8 | | | | | | 5.9 | 7.7 | 5.26 | | 5.57 | - | 4.45 | 5.8 | - | 6.1 | - | - | 7.0 | - | 5.7 | - | 2.8 | 2.0 |
| Phenols | | 0.004 | ND | ND | 0.02 | ND | ND | ND | ND | 0.01 | | ND | | | | ND | | ND | 0.014 | ND | | 0.015 | - | - | - | - | 0.036 | - | - | 0.042 | - | 0.0253 | - | 0.0 | 0.001 |
| Sulfate | | 5.8 | ND | 2.9 | ND | 4.4 | ND | 3.1 | ND | 4.2 | | ND | | | | 4.87 | | 3.4 | ND | ND | | 2.5 | - | 4.7 | ND | - | 2 | - | - | 2.9 | - | 2.3 | 7.4 | 2.5 | 250.0 |
| Total Organic Carbon (TOC) | | 3.4 | 7.8 | 8.2 | 29.5 | 6.1 | 12.1 | 6.3 | 11.7 | 8.8 | 35.4 | 8.8 | 23.2 | | 13 | 6.1 | | 8.8 | 9.5 | 13 | | 11.7 | - | - | 16.2 | - | 12.6 | - | - | 7.5 | 24.9 | 25 | 11.7 | 9.4 | |
| Total Dissolved Solids (TDS) | | 383 | 298 | 402 | 330 | 345 | 413 | 446 | 484 | 378 | | 390 | | | | | | 449 | 344 | 440 | | 395 | - | 375 | 392 | - | 349 | - | - | 426 | - | 436 | 394 | 334.7 | 500.0 |
| Total Hardness | | 260 | 214 | 341 | 319 | 288 | 268 | 343 | 277 | 274 | | 328 | | | | | | 345 | 228 | | | 255 | - | 286 | 314 | - | 259 | - | - | 340 | - | 410 | - | 254.4 | |
| Total Kjeldahl Nitrogen (TKN) | | | 8.4 | | 5 | | 6.3 | | 6.5 | | | 5.2 | | | | | | 2.4 | | 3.52 | | 7.11 | - | - | 6.91 | - | - | - | - | 8.2 | - | 8.9 | - | 3.4 | |
| Turbidity (NTU units) | | 53 | 38 | 48 | 56.4 | 22 | 30.2 | 45.2 | 75 | 64.4 | | 13.9 | | | 19 | 150 | 12 | 4 | 29.5 | 79.7 | 54.4 | 31.5 | - | 36.3 | 22 | 66.8 | 26.6 | - | - | 12.4 | 219 | 41.4 | 154 | 86.1 | 5.0 |
| Cyanide | | | ND | | ND | | ND | | ND | | | ND | | | | | | ND | | | | - | - | - | - | - | - | - | - | ND | - | - | - | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected.
<DL = Detected below method detection limit.
J = Estimated.
B = Analyte was detected in method blank.

MW-12B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | 11.6 | 19.6 | 23.8 | 28.0 | 5.0 | 14.0 | 18.0 | | 64.0 | | 13.0 | | 25 | | 18 | | 16 | | 20 | | 20 | | 22 | 15 | 11 | 18 | 20 | 16 | 19 | 13 | 19 | 11 | 13 | | 14.8 |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Bromodichloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | ND | 1.98 | ND | ND | ND | ND | | ND | | ND | | ND | | 0.7 | | ND | | ND | | ND | | ND | ND | ND | ND | ND | 1 | 0.8 | ND | 1 | ND | 0.5 | | ND |
| sec-Butylbenzene | 8.4 | 20.9 | 16.2 | ND | 3.0 | ND | ND | | 0.6 | | ND | | ND | | ND | | ND | | ND | | 0.6 | | 0.8 | 8 | ND | 0.6 | 0.8 | 0.7 | 1 | ND | 1 | ND | 0.6 | | ND |
| tert-Butylbenzene | ND | 34.1 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Chlorobenzene | 6.8 | 11.7 | 10.0 | 11.0 | 2.0 | ND | 10.0 | | 12.0 | | 6.0 | | 12 | | 9 | | 10 | | 11 | | 12 | | 13 | 11 | 7 | 12 | 12 | 12 | 17 | 8 | 18 | 9 | 10 | | 17.2 |
| Chloroethane | ND | ND | ND | 2.0 | 2.0 | 9.0 | 3.0 | | 2.0 | | 3.0 | | 4 | | 4 | | 2 | | ND | | 2 | | 4 | 1 | 4 | 3 | ND | 2 | 2 | ND | 2 | ND | ND | | ND |
| Chloroform | ND | 1.33 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | ND | 0.17 | ND | ND | ND | ND | | 13.0 | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 4-Chlorotoluene | ND | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Dibromochloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | ND | ND | 6.0 | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | ND | ND | ND | ND | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | | ND | | 2.0 | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,2-Dichlorobenzene | 4.19 | 5.52 | 7.20 | 4.0 | ND | ND | 2.0 | | 3.0 | | ND | | 3 | | 2 | | 1 | | ND | | 2 | | 1 | 1 | 0.6 | 1 | 0.9 | 1 | 1 | ND | 1 | ND | 0.7 | | ND |
| 1,3-Dichlorobenzene | ND | 0.21 | ND | ND | ND | ND | ND | | ND | | 3.0 | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,4-Dichlorobenzene | 1.23 | 8.28 | ND | ND | 1.0 | 4.0 | 7.0 | | 6.0 | | ND | | 4 | | 4 | | 4 | | ND | | 4 | | 6 | 4 | 3 | 5 | 4 | 4 | 6 | 2 | 8 | 3 | 4 | | 8.12 |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | ND | ND | ND | ND | ND | ND | | 5.0 | | 0.7 | | ND | | ND | | ND | | 1 | | ND | | 2 J | ND | 0.7 | 0.9 | 0.8 | ND | ND | ND | 0.9 | ND | 0.9 | | ND |
| 1,1-Dichloroethane | 8.09 | 8.10 | 8.29 | 12.0 | 7.0 | 13.0 | 6.0 | | 8.0 | | 7.0 | | 11 | | 6 | | 7 | | 8 | | 7 | | 6 | 6 | 6 | 9 | 7 | 10 | 6 | 7 | 5 | 8 | 7 | | 4.83 |
| 1,2-Dichloroethane | 1.05 | 1.02 | 1.13 | 2.0 | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | 0.7 | | ND | ND | 0.6 | 0.7 | 0.7 | 0.9 | ND | ND | 0.6 | 1 | ND | | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| cis-1,2-Dichloroethene | ND | 19.70 | 4.02 | 3.0 | 1.0 | 52.0 | 2.0 | | 10.0 | | ND | | 4 | | 4 | | 3 | | 5 | | 3 | | 4 | 6 | 2 | 12 | 3 | 15 | 3 | 3 | 2 | 6 | 4 | | ND |
| trans-1,2-Dichloroethene | 18.5 | 0.89 | 0.67 | ND | ND | ND | ND | | 1.0 | | ND | | 0.5 | | 0.8 | | ND | | ND | | ND | | 0.7 | ND | 0.7 | 0.8 | 0.6 | 0.8 | 0.6 | ND | 0.5 | ND | ND | | ND |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,3-Dichloropropane | ND | ND | <DL | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,1-Dichloropropene | ND | ND | 1.01 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Ethylbenzene | 12.2 | 28.2 | 21.4 | 26.0 | 4.0 | 13.0 | 24.0 | | 34.0 | | 15.0 | | 26 | | 26 | | 23 | | 39 | | 27 | | 43 | 16 | 18 | 31 | 36 | 19 | 34 | 13 | 43 | 9 | 17 | | 31.4 |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | 1.32 | 2.68 | 3.07 | 2.0 | ND | ND | 2.0 | | 2.0 | | 1.0 | | 2 | | 2 | | 1 | | 3 | | 2 | | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 0.6 | 3 | 1 | 2 | | 3.21 |
| p-Isopropyltoluene | 2.31 | 3.530 | 2.44 | 2.0 | ND | 3.0 | 2.0 | | 3.0 | | ND | | 4 | | 2 | | 2 | | ND | | 2 | | 0.8 | 1 | 0.8 | 1 | 2 | 1 | 2 | ND | ND | 0.8 | 1 | | ND |
| Methylene chloride | 2.62 | ND | ND | 1.0 | ND | 5.0 | ND | | 1.0 | | 0.6 | | 0.6 | | 0.5 | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | 0.8 | ND | ND | | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | 6.13 | 5.53 | 5.47 | 7.0 | ND | ND | 5.0 | | 7.0 | | 3.0 | | 5 | | 6 | | 4 | | ND | | 6 B | | 6 B | 4 | 3 | 5 B | 5 | 4 | 5 | ND | 6 | 2 B | 4 | | 10.6 |
| n-Propylbenzene | 1.51 | 10.9 | 9.73 | 2.0 | ND | ND | 2.0 | | 2.0 | | 1.0 | | 2 | | 2 | | 1 | | 2 | | 2 | | 3 | 1 | 1 | 2 | 3 | 2 | 3 | 0.5 | 4 | 1 | 2 | | 3.79 |
| Styrene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,1,2,2-Tetrachloroethane | ND | 0.32 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Toluene | 32.9 | 1.64 | ND | 2.0 | ND | 46.0 | 21.0 | | 8.0 | | 5.0 | | 9 | | 6 | | 6 | | 2 | | 1 | | 9 | 0.8 | 0.7 | 1 | 1 | 0.8 | 4 | 0.6 | 2 | 0.5 | 0.9 | | 12.9 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | | 0.6 | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | 0.8 | ND | ND | | ND |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Trichloroethene | 1.07 | 0.98 | 0.20 | ND | ND | ND | ND | | 1.0 | | 0.6 | | 0.6 | | 0.6 | | ND | | 0.5 | | ND | | ND | 1 | ND | 2 | ND | 2 | ND | ND | ND | 1 | ND | | ND |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | | 8.0 | | 2.0 | | ND | | ND | | 0.6 | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,2,3-Trichloropropane | ND | ND | 3.90 | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,2,4-Trimethylbenzene | 18.1 | 0.50 | 7.22 | 29.0 | 4.0 | 4.0 | 27.0 | | 38.0 | | 3.0 | | 28 | | 28 | | 20 | | ND | | 29 | | 34 | 15 | 15 | 24 | 27 | 11 | 27 | 0.8 | 31 | 4 | 12 | | 35.1 |
| 1,3,5-Trimethylbenzene | 3.48 | ND | 8.27 | 6.0 | ND | ND | 8.0 | | 7.0 | | 17.0 | | ND | | 6 | | 5 | | ND | | 5 | | 7 | 1 | 2 | 3 | 3 | 2 | 7 | 0.8 | 3 | 3 | 1 | | 8.21 |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | 0.42 | ND | ND | ND | ND | 41.0 | ND | | 15.0 | | ND | | ND | | ND | | 2 | | 3 | | 2 | | 5 | 3 | 3 | 4 | 3 | 7 | 3 | 2 | 3 | 4 | 4 | | ND |
| o-Xylene | 16.5 | 32.5 | 22.6 | | ND | | | | ND | | ND | | ND | | 19 | | 13 | | 17 | | 7 | | 18 | 5 | 5 | 6 | 7 | 2 | 8 | 2 | 10 | ND | 2 | | 10.8 |
| p-Xylene & m-Xylene | | | 18.1 | 69.0 | 9.0 | | | | 98.0 | | 42.0 | | 70 | | 49 | | 44 | | 53 | | 33 | | 65 | 14 | 16 | 24 | 18 | 7 | 37 | 9 | 54 | 4 | 8 | | 41 |

MW-12B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 1.7 | | | | 0.1 | | | | 0.61 | | | | 5.07 | | | | 6.38 | | | | 2.34 | | | 0.248 | | 0.2 | | ND | | ND | | ND | | | |
| Calcium | 96.6 | 138 | 167 | 123 | 98.4 | 117 | 12.3 | 123 | 109 | 95.5 | 89.2 | 109 | 108 | 137 | 90.1 | 82.1 | 49.2 | 89.8 | 99.6 | 103 | 120 | 123 | 117 | 95.6 | 110 | 121 | 107 | 129 | 104 | 112 | 116 | 114 | 109 | | 104 |
| Iron | 45.7 | 63.8 | 57.6 | 52.6 | 23.9 | 28.6 | 57.3 | 62.8 | 63.5 | 57.2 | 53.9 | 54.9 | 47.8 | 65 | 13.8 | 35.9 | 11.5 | 19.3 | 40.2 | 44.2 | 48.6 | 63.7 | 55.5 | 26.2 | 50.6 | 40.9 | 38.9 | 25.7 | 43.2 | 23.1 | 50.4 | 14.4 | 30.5 | | 53.7 |
| Magnesium | 8.7 | 20.4 | 20.5 | 26.3 | 21.9 | 22.7 | 25.2 | 28.2 | 22.7 | 19.8 | 21.6 | 24.1 | 24.2 | 26.5 | 17.2 | 16.9 | 11.8 | 16 | 18.8 | 23.0 | 25.2 | 24.4 | 22.8 | 19.5 | 22.2 | 23.3 | 20.3 | 23.3 | 21.3 | 21.7 | 23.1 | 22.4 | 21 | | 21.8 |
| Manganese | 19 | 23.1 | 23.9 | 13.1 | 16.4 | 15.6 | 23.9 | 22.1 | 19.5 | 16.4 | 10.7 | 16.1 | 16 | 20.9 | 9.03 | 12.2 | 2.72 | 9.34 | 13.7 | 12.0 | 15.4 | 20.2 | 17.3 | 11.3 | 15.4 | 14.7 | 12.9 | 12.8 | 15.9 | 11.2 | 16.1 | 12.3 | 12.2 | | 16 |
| Potassium | 8.9 | 12.1 | 11.8 | 11 | 7.6 | 6.0 | 11.0 | 12.7 | 12.9 | 11.3 | 6.87 | 9.29 | 9.61 | 12.4 | 4.87 | 9.46 | 3.14 | 6.76 | 7.99 | 12.4 | 11.7 | 12.4 | 9.54 | 12.8 | 10.1 | 11.2 | 8.91 | 8.66 | 10 | 8.18 | 10.7 | 10 | 8.78 | | 11.1 |
| Sodium | 18.9 | 27.7 | 30.4 | 34.9 | 27.3 | 25.2 | 34.0 | 38.0 | 32.2 | 26.0 | 19.3 | 27.9 | 30.8 | 33.8 | 22.8 | 22.8 | 31 | 20.6 | 21.8 | 27.6 | 31.9 | 30.8 | 24.7 | 31.0 | 24.3 | 27.8 | 20.9 | 23.8 | 24.6 | 23.4 | 23.2 | 21.2 | 19.3 | | 24.1 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | | | ND | | | | 0.05 | | | | ND | | | | ND | | | | ND | | | 0.055 | | ND | | ND | | ND | | ND | | | |
| Arsenic | ND | | | | 0.032 | | | | 0.010 | | | | 0.020 | | | | 0.019 | | | | 0.02 | | | 0.010 | | 0.02 | | 0.03 | | 0.01 | | 0.01 | | | |
| Barium | 0.53 | | | | 0.36 | | | | 0.8 | | | | 0.66 | | | | 0.15 | | | | 0.73 | | | 0.581 | | 0.73 | | 0.58 | | 0.43 | | 0.5 | | | |
| Beryllium | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | | |
| Cadmium | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | ND | ND | ND | ND | 0.01 | ND | ND | ND | ND | ND | | ND |
| Chromium (Total) | <DL | | | | 0.01 | | | | 0.02 | | | | 0.03 | | | | 0.04 | | | | 0.04 | | | 0.028 | | 0.02 | | ND | | 0.02 | | 0.02 | | | |
| Copper | ND | | | | ND | | | | ND | | | | 0.01 | | | | 0.02 | | | | 0.02 | | | ND | | ND | | ND | | ND | | ND | | | |
| Lead | <DL | ND | ND | ND | ND | ND | 0.070 | 0.009 | 0.003 | 0.004 | 0.023 | 0.012 | 0.009 | 0.005 | ND | 0.005 | 0.017 | 0.002 | 0.001 | 0.003 | 0.01 | ND | 0 | 0.011 | 0.005 | 0 | 0 | 0 | 0 | 0 | ND | 0.01 | 0 | | 0 |
| Mercury | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | | |
| Nickel | 0.64 | | | | ND | | | | 0.05 | | | | 0.09 | | | | 0.04 | | | | 0.1 | | | 0.058 | | 0.08 | | 0.06 | | 0.06 | | 0.05 | | | |
| Selenium | 0.04 | 0.03 | 0.05 | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Silver | ND | | | | ND | | | | ND | | | | 0.02 | | | | ND | | | | 0.01 | | | ND | | ND | | ND | | ND | | ND | | | |
| Thallium | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | | |
| Zinc | 0.03 | | | | 0.01 | | | | 0.02 | | | | 0.06 | | | | 0.06 | | | | 0.08 | | | 0.095 | | 0.05 | | 0.07 | | 0.03 | | ND | | | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 411 | 461 | 523 | 522 | 468 | 522 | 653 | 562 | 489 | 507 | 394 | 446 | 523 | 656 | 475 | 386 | 656 | 253 | 516 | 587 | 583 | 530 | 470 | | 499 | 412 | 543 | | 587 | 571 | 521 | 500 | 487 | | 603 |
| Biochemical Oxygen Demand | 45 | | | | 6.0 | ND | | | 24.0 | | | | 11 | | | | 13 | | | | ND | | | 29 | | 26 | | | | 10 | | | | | |
| Boron | 0.11 | | | | 0.21 | ND | | | 0.25 | | | | 0.02 | | | | ND | | | | 0.29 | | | 0.249 | | 0.28 | | 0.24 | | 0.23 | | 0.18 | | | |
| Chemical Oxygen Demand | 100 | 20 | 98 | 90 | 50 | 259 | 158.0 | 106 | 85.1 | 107 | 82.4 | 84.7 | 89.8 | 228 | 92.1 | 50.9 | 131 | 84 | 69.3 | 127 | 325 | 139 | 88.3 | | 27.4 | 85.5 | 44.8 | | 93.9 | 77.2 | 94 | 32.1 | 71.5 | | 76.7 |
| Chromium (Hexavalent) | <DL | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | 0.010 | | ND | | ND | | 0 | | | | | |
| Chloride | 42.5 | 46 | 64 | 7 | 71 | 36.0 | 70.0 | 75.0 | 32.4 | 37.4 | 29.8 | 56.3 | 72.6 | 61.6 | 27 | 15.5 | 69.9 | 38.6 | 38 | 55.2 | 79.1 | 43.8 | 29.2 | | 30.9 | 35.6 | 29.8 | | 36.4 | 34.9 | 32.8 | 40.1 | 27 | | 42 |
| Color (PCU units) | 51 | | | | ND | | | | 250 | | | | 400 | | | | 175 | | | | 600 | | | | | 120 | | | | 450 | | | | | |
| Nitrate-Nitrite | <DL | <DL | <DL | ND | ND | ND | ND | ND | 1.99 | 1.2 | 0.23 | ND | ND | 0.18 | ND | ND | ND | 0.1 | ND | 0.110 | ND | ND | ND | | ND | ND | ND | | ND | ND | ND | 1.28 | ND | | ND |
| Nitrogen-Ammonia | 16.3 | 8.7 | 7.5 | 0.5 | 17.5 | 2.8 | 20.8 | 38.0 | 20.5 | 19.7 | 11.8 | 12.6 | 19.1 | 22.9 | 27.1 | 6.31 | 2.6 | 20.8 | 20.3 | 13.8 | 24 | 13.4 | 8.66 | | 11.2 | 13.7 | 15 | | 20.4 | 16.9 | 18.1 | | 12.5 | | 25.3 |
| Phenols | 0.005 | 0.084 | ND | 0.010 | 0.020 | 0.100 | ND | ND | 0.096 | 0.100 | 0.049 | 0.087 | 0.147 | 0.011 | 0.060 | 0.032 | 0.235 | 0.046 | 0.063 | 0.118 | 0.25 | 0.145 | 0.11 | | 0.06 | 0.08 | 0.07 | | 0.13 | 0.07 | 0.12 | | 0.06 | | 0.11 |
| Sulfate | 14 | 1.8 | 16.8 | ND | ND | ND | ND | ND | 20.0 | 8.4 | ND | ND | 11 | | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | 6.4 | | 11 | ND | ND | ND | 18 | | ND |
| Total Organic Carbon (TOC) | 30.4 | 29 | 36 | 27 | 24 | 172 | 35.0 | 58.0 | 21.8 | 29.0 | 19.2 | 22.9 | 30 | 44.2 | 30.8 | 13 | 372 | 25.6 | 24.3 | 24.3 | 50.9 | 32.7 | 25.6 | | 19 | 19 | 18 | | 28 | 44 | 33 | 17 | 19 | | 27.2 |
| Total Dissolved Solids (TDS) | 436 | 580 | 546 | 685 | 584 | 454 | 639.0 | 588 | 474 | 556 | 430 | 602 | 380 | 688 | 426 | 367 | 658 | 530 | 461 | 568 | 670 | 565 | 470 | | 544 | 438 | 468 | | 543 | 480 | 558 | 503 | 514 | | 509 |
| Total Hardness | 277 | 427 | 721 | 415 | 336 | 386 | 134.0 | 422 | 376 | 404 | 361 | 386 | 521 | 595 | 554 | 320 | 589 | 290 | 326 | 352 | 446 | 408 | 386 | | 366 | 398 | 351 | | 347 | 301 | 385 | 377 | 359 | | 349 |
| Total Kjeldahl Nitrogen (TKN) | 11.2 | | | | 15.8 | | | | 21.9 | | | | 22 | | | | 30 | | | | 19.5 | | | 24.3 | | 12.8 | | | | 17.5 | | | | | |
| Turbidity (NTU units) | 44 | 1440 | 370 | 570 | 179 | 62.0 | 173.0 | 240 | 80.0 | 58.0 | 120 | 130 | 200 | 140 | 64 | 40 | 155 | 88 | 98 | 150 | 190 | 100 | 125 | | 75 | 43 | 48 | | 23 | 600 | 51 | | 48 | | 140 |
| Cyanide | <DL | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | | | ND | | | | | |

MW-12B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | 1.9 | 2.2 | 4.5 | 7.1 | 12 | 3 | 4.5 | 3.3 | ND | ND | 1.6 | 2.6 | 4.2 | ND | ND | 3.3 | ND | ND | 2.5 | ND | ND | ND | ND | ND | ND | 2.2 | ND | 2.03 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Benzene | 13 | 13 | 17.9 | 12.5 | 14 | 9.2 | 13 | 12 | 15 | 12 | 10 | 11 | 9.6 | 5.5 | 5.4 | 8.6 | 6.8 | 8.8 | 9.7 | 6.6 | 7.4 | 7.0 | 8.3 | 8.5 | 5.8 | 3.7 | 7.0 | 5.5 | 6.0 | 6.7 | 10.5 | 7.8 | 5.8 | 13.41 | 1.0 |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromoform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | 1.4 | ND | 1.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.11 | 50.0 |
| n-Butylbenzene | ND | ND | ND | ND | 0.52 | ND | ND | 0.36 | 0.48 | 0.44 | ND | 0.48 | ND | ND | ND | 0.35 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.15 | 5.0 |
| sec-Butylbenzene | ND | 0.61 | 0.7 | 0.5 | 0.62 | 0.38 | 0.47 | 0.58 | 0.78 | 0.68 | 0.25 | 0.68 | 0.32 | 0.25 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 1.19 | 5.0 |
| tert-Butylbenzene | ND | ND | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.60 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | ND | ND | 0.26 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.63 | ND | ND | ND | ND | ND | ND | ND | ND | 0.03 | 60.0 |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | 11 | 13 | 17.1 | 11.2 | 14 | 7.7 | 13 | 12 | 18 | 15 | 8.3 | 15 | 11 | 6.7 | 5.0 | 10 | 6.1 | 12 | 13 | 8.7 | 8.8 | 9.9 | 13 | 10 | 7.6 | 3.6 | 10 | 11 | 6.9 | 9.7 | 16.9 | 9.4 | 7.0 | 10.53 | 5.0 |
| Chloroethane | 1.8 | 2.3 | ND | ND | 2.9 | 2.6 | 2.5 | 2.1 | 2 | 1.2 | 1.5 | 1.6 | 1.5 | 0.9 | 1.7 | 1.1 | 1.1 | 0.93 | 0.85 | ND | ND | 1.2 | ND | ND | 0.99 | 1.6 | ND | ND | ND | ND | ND | ND | ND | 1.41 | 5.0 |
| Chloroform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.03 | 7.0 |
| Chloromethane | ND | ND | ND | ND | ND | ND | 0.31 | ND | 0.21 | ND | 0.63 | 0.25 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.39 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.25 | 5.0 |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.15 | 0.04 |
| 1,2-Dibromoethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | 0.65 | 0.67 | ND | 0.6 | 0.79 | 0.37 | 0.58 | 0.6 | 0.8 | 0.61 | 0.35 | 0.63 | 0.48 | 0.3 | 0.24 | 0.39 | 0.23 | ND | ND | ND | ND | 0.45 | ND | ND | 0.3 | ND | ND | ND | ND | ND | ND | ND | ND | 0.87 | 3.0 |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | 0.26 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.06 | 3.0 |
| 1,4-Dichlorobenzene | 3.6 | 5.1 | 6.3 | 3.5 | 4.5 | 2.9 | 3.8 | 4.1 | 5.7 | 5.5 | 2.3 | 5.1 | 3.6 | 2.4 | 1.7 | 3.2 | 1.7 | 4.1 | 4.2 | ND | ND | 3.2 | ND | ND | 2.3 | 0.96 | ND | ND | ND | ND | 5.5 | 3.7 | ND | 3.21 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | 0.5 | ND | ND | ND | 1.2 | 1.2 | 1 | 1.4 | ND | 0.96 | 1.3 | ND | ND | 0.81 | 0.76 | 1.3 | 1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | 22.7 | - | ND | - | 0.76 | 5.0 |
| 1,1-Dichloroethane | 9.1 | 4.5 | 5.1 | 6.7 | 5.6 | 5 | 6 | 5.2 | 4.7 | 4.1 | 7.9 | 4.4 | 7.0 | 5.6 | 11 | 3.6 | 7.9 | 3.6 | 3.5 | ND | 6.8 | 4.1 | ND | ND | 4.7 | 9.1 | ND | ND | 8.1 | ND | 5.1 | 4.3 | ND | 5.95 | 5.0 |
| 1,2-Dichloroethane | 1.5 | ND | ND | ND | ND | 0.38 | ND | ND | ND | ND | 1.2 | ND | 0.87 | 0.52 | 0.58 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.36 | ND | ND | ND | ND | ND | ND | ND | ND | 0.27 | 0.6 |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| cis-1,2-Dichloroethene | 3.3 | 2.3 | 2.4 | 4.2 | 3 | 3.2 | 4 | 4.6 | 3.5 | 2.6 | 2.5 | 3.2 | 1.1 | 0.82 | 2.3 | 1.9 | 1.3 | 2.1 | 1.7 | ND | ND | 1.9 | ND | ND | 1.8 | 2.1 | ND | ND | ND | ND | ND | 2.5 | ND | 3.88 | 5.0 |
| trans-1,2-Dichloroethene | ND | ND | ND | 0.5 | 0.48 | 0.48 | 0.65 | 0.52 | 0.51 | 0.48 | 0.46 | 0.41 | 0.36 | 0.26 | 0.34 | 0.41 | 0.29 | ND | ND | ND | ND | 0.35 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.57 | 5.0 |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.02 | 5.0 |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| Ethylbenzene | 6.3 | 21 | ND | 15.1 | 16 | 9.5 | 10 | 14 | 18 | 15 | 0.38 | 16 | 1.8 | ND | 0.51 | 6.1 | ND | 8.7 | 2.1 | ND | ND | 2.4 | ND | ND | 0.57 | ND | ND | ND | ND | ND | ND | 1.6 | ND | 13.46 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | 1 | 1.9 | 2.3 | 1.5 | 1.8 | 1.1 | 1.3 | 1.5 | 2.1 | 2 | 0.77 | 1.8 | 0.98 | 0.58 | 0.46 | 1.7 | 0.36 | 1.6 | 1.5 | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 1.24 | 5.0 |
| p-Isopropyltoluene | 0.57 | ND | 1.4 | 0.7 | ND | 0.52 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.71 | 5.0 |
| Methylene chloride | ND | ND | ND | ND | ND | ND | 0.83 | 0.35 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.23 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Naphthalene | 3.5 | 6.3 | 3.5 | ND | 5 | 3.3 | 3.5 | 3.9 | 5.1 | 5.8 | 1.6 | 5.3 | 2.9 | 1.5 | 1.1 | 1.7 | 0.53 | 4.3 | 4 | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 2.69 | 10.0 |
| n-Propylbenzene | 1.5 | 2.2 | 2.5 | 1.7 | 2 | 1.2 | 1.3 | 1.7 | 2.2 | 2.2 | 0.71 | 2 | 0.92 | 0.55 | 0.39 | 1.8 | 0.26 | 1.7 | 1.2 | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 1.57 | 5.0 |
| Styrene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Toluene | ND | 2 | 1 | 0.7 | 0.72 | 0.46 | 1.1 | 0.82 | 1.6 | 0.68 | 0.7 | 1.1 | 0.39 | 0.31 | 0.74 | 0.35 | 0.23 | 0.64 | 0.42 | ND | ND | 0.56 | ND | ND | 0.3 | 0.31 | ND | ND | ND | ND | ND | ND | ND | 3.22 | 5.0 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | 0.46 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.28 | 0.58 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.02 | 5.0 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 5.0 |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| Trichloroethene | 1.2 | ND | ND | 1.2 | 0.54 | 0.53 | 0.73 | 0.86 | 0.6 | 0.84 | 0.74 | 0.64 | 0.32 | ND | 0.37 | 0.77 | 0.3 | ND | ND | ND | ND | 0.42 | ND | ND | 0.29 | 0.34 | ND | ND | ND | ND | ND | ND | ND | ND | 0.38 | 5.0 |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.18 | 5.0 |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.07 | 0.04 |
| 1,2,4-Trimethylbenzene | 1.7 | 19 | 13.2 | 5.3 | 7.3 | 3.7 | 5.1 | 4.5 | 10 | 5.1 | ND | 3.7 | 0.85 | ND | ND | ND | ND | 4.4 | 2.5 | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 9.46 | 5.0 |
| 1,3,5-Trimethylbenzene | ND | 3.4 | 1.3 | 1.1 | 0.38 | 0.64 | 1.1 | ND | 2 | ND | ND | ND | ND | ND | ND | ND | ND | 0.45 | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 1.99 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Vinyl chloride | 1.2 | 0.66 | 2.4 | 5.4 | 2.9 | 3 | 3.5 | 5.6 | 2.6 | 3.1 | 2.2 | 4.6 | 1.3 | 0.98 | 1.4 | 4.0 | 1.5 | 2.9 | 1.1 | ND | ND | 2.9 | ND | ND | 0.95 | 1.4 | ND | ND | ND | 3 | ND | 2.2 | ND | 2.80 | 2.0 |
| o-Xylene | 0.77 | 4.2 | 3.3 | 1.5 | 2.2 | 0.98 | 1.2 | 2 | 2.4 | 1.7 | ND | 2 | 0.45 | ND | 0.21 | 0.68 | ND | 1.5 | 0.62 | ND | ND | 0.4 | ND | ND | 0.3 | ND | ND | ND | ND | ND | ND | ND | ND | 4.10 | 5.0 |
| p-Xylene & m-Xylene | 3.4 | 16 | 17 | 6.3 | 8.8 | 3.6 | 9 | 5.5 | 18 | 6.3 | 0.44 | 5.8 | 1.8 | 0.69 | 0.81 | 3.7 | ND | 6.3 | 4 | ND | ND | 2.6 | ND | ND | 2.5 | ND | ND | ND | ND | ND | ND | 2.9 | ND | 16.50 | 5.0 |

MW-12B
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 0.1 | | 0.18 | | 0.21 | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | 0.053 | 0.001 | - | - | ND | ND | - | ND | ND | 0.0157 | 0.0282 | - | 0.096 | 0.50 | |
| Calcium | 126 | 95.7 | 96.1 | 110 | 99.9 | 119 | 119 | 115 | 106 | 113 | 124 | 113 | 118 | 122 | 126 | 117 | 130 | 117 | 105 | 130 | 130 | 107 | 111 | 120 | 126 | 148 | 104 | 133 | 135 | 121 | 106 | 119 | 127 | 112.05 | |
| Iron | 26.8 | 29.3 | 24.6 | 18.4 | 21.6 | 29.9 | 13.3 | 20.6 | 19.6 | 29.8 | 14.6 | 22.8 | 17.7 | 26.6 | 13.2 | 22.4 | 19.2 | 19.7 | 15.1 | 27 | 15 | 14.5 | 26.8 | 8.94 | 14.5 | 6.01 | 10.2 | 17.3 | 13.2 | 12.3 | 14.4 | 17.5 | 11.0 | 31.03 | 0.3 |
| Magnesium | 24.7 | 19.6 | 17.8 | 20.9 | 19 | 22.6 | 22.7 | 20.7 | 19.8 | 22.9 | 24.3 | 22.8 | 24.1 | 25.6 | 24.9 | 23.2 | 26.2 | 23.5 | 20.9 | 27 | 28 | 22.2 | 23.7 | 23.3 | 24.5 | 29.3 | 19.1 | 24.4 | 27.3 | 22.8 | 20.8 | 22.0 | 23.8 | 22.29 | 35.0 |
| Manganese | 13.2 | 11.4 | 10.8 | 9.84 | 10.6 | 12.7 | 12.2 | 11.4 | 13.1 | 12.4 | 11.2 | 12.5 | 10.7 | 11.9 | 9.03 | 11.5 | 11.2 | 11.1 | 10.6 | 12 | 11 | 9.61 | 11.7 | 11.2 | 9.39 | 8.04 | 13.4 | 10.8 | 10.5 | 10.7 | 9.04 | 7.62 | 9.54 | 13.15 | 0.3 |
| Potassium | 7.87 | 6.84 | 8 | 5.81 | 6.6 | 6.9 | 6.9 | 5.1 | 6.2 | 7.2 | 7.4 | 6.9 | 8.1 | 7.35 | 5.17 | 5.97 | 6.44 | 5.7 | 7.1 | 6.4 | 7.5 | 4.8 | 7.4 | 3.8 | 4.6 | 3.3 | 4.6 | ND | 7.67 | 6.3 | 7.42 | 3.97 | 5.52 | 7.96 | |
| Sodium | 22.3 | 16.5 | 16.1 | 15.6 | 14.9 | 16.7 | 19.9 | 14.2 | 15.5 | 17.2 | 21 | 16.6 | 19.4 | 20.2 | 14.9 | 15.8 | 20 | 14.5 | 15.5 | 16 | ND | 13.3 | 17.1 | 12.2 | 14 | 13 | 11.2 | 16.1 | 17.4 | 11.8 | 14.5 | 11.2 | 15.0 | 21.10 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.003 |
| Arsenic | 0.01 | | ND | | 0.01 | | ND | | 0.01 | | 0.012 | 0.01 | | 0.013 | | | 0.012 | 0.011 | | | ND | 0.007 | - | - | 0.013 | 0.014 | - | ND | ND | 0.0108 | 0.0095 | - | 0.0085 | 0.01 | 0.025 |
| Barium | 0.56 | | 0.52 | | 0.43 | | 0.43 | | 0.44 | | 0.6 | 0.53 | | 0.555 | | | 0.516 | 0.45 | | | 0.53 | 0.334 | - | - | 0.303 | 0.271 | - | 0.394 | 0.414 | 0.304 | 0.439 | - | 0.325 | 0.41 | 1.0 |
| Beryllium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | |
| Cadmium | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.005 |
| Chromium (Total) | ND | | ND | | 0.01 | | ND | | 0.01 | | ND | ND | | ND | | | ND | ND | | | ND | 0.001 | - | - | 0.0009 | ND | - | 0.0175 | ND | 0.006 | 0.0069 | - | 0.0107 | 0.01 | 0.05 |
| Copper | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.2 |
| Lead | 0 | 0.003 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.002 | ND | 0.002 | ND | ND | 0.003 | 0.002 | ND | 0.0046 | ND | 0.0015 | 0.0035 | 0.0021 | 0.0016 | 0.00 | 0.025 |
| Mercury | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 6E-05 | - | 0.0001 | 0.00 | 0.0007 |
| Nickel | 0.05 | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.006 | - | - | 0.005 | 0.004 | - | ND | ND | 0.0058 | 0.0063 | - | 0.0046 | 0.04 | 0.1 |
| Selenium | 0 | 0.001 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | | ND | 0.005 | - | - | 0.006 | 0.006 | - | ND | ND | ND | ND | - | ND | 0.00 | 0.0 |
| Silver | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | 0.001 | 0.002 | - | ND | ND | ND | ND | - | ND | 0.00 | 0.05 |
| Thallium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | 0.0127 | ND | ND | 0.0044 | - | ND | 0.00 | 0.0005 |
| Zinc | 0.04 | | ND | | ND | | ND | | 0.03 | | 0.03 | 0.018 | | ND | | | ND | 0.014 | | | 0.014 | 0.014 | - | - | 0.01 | ND | - | ND | ND | 0.0028 | 0.0087 | - | 0.0045 | 0.02 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 469 | 363 | 480 | 440 | 167 | 371 | 449 | 383 | 373 | ND | 476 | 267 | 457 | 482 | 410 | 413 | 490 | 482 | 407 | 440 | 480 | 460 | 485 | 461 | 487 | 530 | 388 | 468 | 484 | 539 | 483 | 378 | 496 | 465.8 | |
| Biochemical Oxygen Demand | 8 | | 9 | | ND | | 6.3 | | 3.5 | | 6.3 | 4.7 | | 11.9 | | | ND | 5 | | 11 | 7 | 10.1 | - | - | 11.1 | 6.7 | 3.7 | 9 | ND | 9.9 | 6 | 13 | 7.6 | 9.0 | |
| Boron | 0.18 | | 0.11 | | 0.14 | | 0.19 | | 0.17 | | 0.18 | 0.16 | | 0.163 | | | 0.151 | 0.15 | | | ND | 0.14 | - | - | 0.1 | 0.08 | - | 0.119 | 0.107 | 0.11 | 0.165 | - | 0.125 | 0.1 | 1.0 |
| Chemical Oxygen Demand | 80.2 | 54.1 | 45 | 42 | 83 | 44.6 | 71.3 | 23.7 | 50.5 | 43 | 46.5 | 41.2 | 42.9 | 45 | 38 | 41.6 | 36.3 | 31 | 48.8 | 38 | 45 | 37.4 | 56.7 | 26.6 | 42.8 | 24.5 | 30 | - | 46.3 | 48.4 | 73.3 | 64.5 | 74.7 | 73.6 | |
| Chromium (Hexavalent) | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | 0.0061 | 0.0 | 0.05 |
| Chloride | 45.5 | 23.8 | | 17 | 24.8 | 18.3 | 38.6 | 17.4 | 16 | 21.4 | 27.7 | 15.7 | 27.3 | 25 | 21.7 | 16 | 25 | 14 | 14.5 | 13.6 | 22.7 | 12.8 | 19.1 | 8.1 | 10.2 | 9.6 | 7.9 | 12.6 | 18.2 | 11.4 | 16.3 | 9.1 | 10.8 | 31.2 | 250.0 |
| Color (PCU units) | 500 | | 30 | | 120 | | 60 | | 160 | | 300 | 80 | | 30 | | | 0 | 320 | | | 5 | 280 | - | - | 340 | 90 | - | 20 | 5 | 15 | - | - | 75 | 139.9 | 15.0 |
| Nitrate-Nitrite | 0.72 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 4 | ND | 0.4 | 0.144 | ND | | 0.104 | ND | ND | 0.055 | 0.182 | ND | ND | ND | ND | ND | ND | ND | ND | 0.052 | 1.4 | ND | 0.052 | 0.2 | 10.0 |
| Nitrogen-Ammonia | 14.2 | 14 | 12.2 | 10.4 | 2.3 | 8 | 17.1 | 5 | 4.3 | 8.8 | 6.3 | 8.3 | 9.2 | 13.2 | 7.36 | | 9.36 | 8.9 | 11 | 7.82 | 9.24 | 6.63 | 12.5 | 3.7 | 7.03 | 5.29 | 5.1 | 6.87 | 9.3 | 6.7 | 12.9 | 5.1 | 2.2 | 12.0 | 2.0 |
| Phenols | 0.06 | 0.0661 | 0.002 | 0.002 | 0.017 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.09 | ND | ND | 0.031 | 0.087 | 0.026 | 0.0412 | 0.0057 | ND | 0.0406 | 0.0318 | 0.047 | 0.0578 | 0.0437 | 0.049 | 0.0 | 0.001 |
| Sulfate | ND | ND | 2.2 | 2.2 | ND | 2.2 | ND | 2.6 | ND | ND | 2.1 | ND | ND | ND | ND | 2.32 | ND | ND | ND | ND | ND | ND | ND | 2.9 | ND | 3.2 | 3 | ND | ND | 2.6 | 1.3 | 1.9 | 2.5 | 2.2 | 250.0 |
| Total Organic Carbon (TOC) | 15.1 | 11 | 14 | 13 | 23.5 | 13.7 | 14.9 | 10 | 13.2 | 16.2 | 13.3 | 14.4 | 17.9 | 14.9 | 9.6 | 9.1 | 11.4 | 11.2 | 8.7 | 10.9 | 11.5 | 12.7 | 17.2 | 8.7 | 14.1 | 9.3 | 11.6 | 9.52 | 9.8 | 3.2 | 19.5 | 20.8 | 9.0 | 28.1 | |
| Total Dissolved Solids (TDS) | 560 | 500 | 445 | 478 | 478 | 449 | 515 | 464 | 587 | 312 | 502 | 468 | 467 | 508 | 482 | 503 | 510 | 468 | 430 | 610 | 600 | 482 | 511 | 479 | 488 | 523 | 407 | 487 | 516 | 459 | 201 | 457 | 458 | 503.4 | 500.0 |
| Total Hardness | 416 | 320 | 313 | 361 | 328 | 390 | 390 | 372 | 346 | 376 | 410 | 376 | 394 | 410 | 420 | 390 | 430 | 389 | 349 | | 450 | 359 | 376 | 396 | 415 | 490 | 352 | 390 | 450 | 410 | 520 | 450 | 340 | 394.4 | |
| Total Kjeldahl Nitrogen (TKN) | 16.2 | | 14 | | 12.9 | | 19.4 | | 6 | | 9.4 | ND | | 13.1 | | | 9.95 | 9.5 | | 5.2 | 9.26 | 7.89 | - | - | 7.59 | 5.25 | - | 7.53 | 7.7 | 6.4 | 14.3 | 6.7 | 4.7 | 11.2 | |
| Turbidity (NTU units) | 200 | 42 | 100 | 53 | 41.6 | 25.8 | 12.7 | 22.6 | 40 | 47.8 | 33.8 | 10.8 | 15.1 | 12 | 4 | 5 | 6 | 10 | 0.8 | 6.4 | 26.8 | 14.4 | 10.4 | 2.3 | 7.1 | 23.4 | 7.84 | 6.3 | 10.9 | 6.6 | 87.2 | 43.8 | 16.2 | 106.2 | 5.0 |
| Cyanide | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected.
<DL = Detected below method detection limit.
J = Estimated.
B = Analyte was detected in method blank.

MW-13
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | <DL | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromochloromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | | | ND | ND | | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| tert-Butylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chlorobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | | | ND | ND | | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Chlorotoluene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Chlorotoluene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | | | ND | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | | | ND | ND | | | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3-Dichlorobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | 0.06 | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | 2.2 | | | 3.0 | 2.0 | | | | 2.0 | | 2.0 | | 2 | | 1 | | 1 | | ND | | 2 | | 2 | 2 | 2 | 2 | ND | 2 | 1 | 1 | 0.9 | 0.8 | 1 | 2.29 | ND |
| 1,2-Dichloroethane | <DL | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | 2 | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | ND | | | 2.0 | ND | | | | 1.0 | | 0.9 | | 0.8 | | 0.6 | | 0.6 | | 0.8 | | 0.8 | | 0.8 | 1 | 0.8 | 0.9 | ND | 0.9 | ND | ND | ND | ND | 0.9 | ND | ND |
| trans-1,2-Dichloroethene | 0.81 | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3-Dichloropropane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2-Dichloropropane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloropropene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1-3-Dichloropropene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Isopropyltoluene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | | | 2.0 | 1.0 | | | | ND | | ND | | ND | | ND | | 0.7 | | ND | | 0.7 | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| n-Propylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Styrene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | 1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichlorobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trichlorobenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | | | ND | ND | | | | 0.5 | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | 0.8 | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | <DL | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.65 | ND |
| Trichlorofluoromethane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | ND | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Xylene & m-Xylene | | | | ND | ND | | | | ND | | ND | | ND | | ND | | 1 | | ND | | 1 | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

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HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 5.04 | | | | 12.6 | | | | 7.85 | | | | 8.91 | | | | 1.17 | | | | 15.2 | | | 1.54 | | 10.4 | | 2.14 | | 0.78 | | 0.85 | | 1.48 | |
| Calcium | 53.1 | 48.8 | 54.7 | 52.8 | 65.9 | 62.6 | 53.7 | 56.2 | 55.2 | 56.4 | 48.7 | 51.2 | 51 | 41.3 | 41 | 45.4 | 50.9 | 45.2 | 36.5 | 38.2 | 50.8 | 48.6 | 51.9 | 44.5 | 42.5 | 44.8 | 37.1 | 45.3 | 40.4 | 41.2 | 34.4 | 40.8 | 35.5 | 44.9 | 38.3 |
| Iron | 9.75 | 0.8 | 2 | 0.28 | 22.0 | 4.03 | 0.2 | 8.6 | 14.4 | 52.1 | 10.2 | 45.5 | 13.4 | 2.08 | 7.39 | 52.3 | 59.6 | 17.2 | 7.75 | 10.6 | 36.9 | 23.1 | 30.8 | 2.56 | 3.13 | 10.2 | 1.91 | 2.94 | 10.7 | 1.19 | 2.92 | 0.8 | 4.95 | 2.57 | 2.52 |
| Magnesium | 11 | 9.9 | 13.2 | 11.3 | 15.1 | 11.9 | 10.8 | 12.6 | 13.7 | 17.8 | 11.8 | 16.6 | 13 | 9.91 | 11.3 | 17.4 | 15.7 | 12.2 | 9.82 | 10.9 | 15.6 | 14 | 15.0 | 10.6 | 10.9 | 11.8 | 9.16 | 9.98 | 11.1 | 9.36 | 8.79 | 9.79 | 9.72 | 10.1 | 9.58 |
| Manganese | 3.33 | 1.94 | 2.02 | 1.06 | 0.83 | 0.82 | 0.18 | 0.71 | 2.85 | 1.98 | 1.94 | 2.82 | 2.37 | 1 | 2.29 | 2.95 | 11 | 2.08 | 1.94 | 1.39 | 3.79 | 3.11 | 1.79 | 2.58 | 1.44 | 4.79 | 2.03 | 1.38 | 2.35 | 2.18 | 2.6 | 1.54 | 1.15 | 2.99 | 1.87 |
| Potassium | 2.6 | 1.5 | 3.1 | 1.1 | 5.1 | 2.1 | 1.3 | 3.8 | 4.22 | 7.24 | 2.85 | 6.79 | 4.88 | 2.21 | 2.67 | 8.74 | 3.26 | 4.41 | 1.91 | 2.36 | 3.9 | 4.47 | 4.70 | 2.22 | 1.78 | 4.49 | 1.53 | 3.16 | 3.85 | 1.55 | 2.64 | 2.91 | 3.06 | 1.42 | 1.15 |
| Sodium | 6.6 | 8.6 | 9 | 8.4 | 8.0 | 7.5 | 7.5 | 7.8 | 8.76 | 7.75 | 6.29 | 5.92 | 8.38 | 6.22 | 7.8 | 7.64 | 0.04 | 7.65 | 6.57 | 8.01 | 8.69 | 7.71 | 7.03 | 8.45 | 7.17 | 7.95 | 6.95 | 7.75 | 6.99 | 7.38 | 7.36 | 7.43 | 7.01 | 6.59 | 8.25 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | | | ND | | | | 0.03 | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Arsenic | <DL | | | | 0.006 | | | | 0.005 | | | | 0.004 | | | | 0.004 | | | | 0.01 | | | ND | | 0 | | 0 | | ND | | ND | | ND | |
| Barium | 0.1 | | | | 0.18 | | | | 0.17 | | | | 0.15 | | | | 0.29 | | | | 0.19 | | | 0.060 | | 0.12 | | 0.13 | | 0.05 | | 0.08 | | 0.03 | |
| Beryllium | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Cadmium | | <DL | <DL | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.004 | 0.01 | ND | ND | ND | ND | ND | ND | 0.01 | ND | ND | ND | ND | ND | ND | ND | ND |
| Chromium (Total) | <DL | | | | 0.03 | | | | 0.02 | | | | 0.03 | | | | ND | | | | 0.66 | | | ND | | 0.02 | | ND | | 0.02 | | ND | | ND | |
| Copper | ND | | | | 0.02 | | | | ND | | | | 0.02 | | | | ND | | | | 0.03 | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Lead | 0.004 | ND | 0.005 | ND | 0.009 | 0.007 | ND | 0.007 | 0.003 | 0.013 | 0.002 | 0.014 | 0.011 | 0.003 | 0.001 | 0.018 | 0.007 | 0.010 | 0.007 | 0.005 | 0.01 | 0.004 | 0.010 | 0.005 | 0.008 | 0.01 | ND | 0 | 0.01 | 0 | 0 | 0.01 | 0 | 0.02 | 0 |
| Mercury | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Nickel | 0.1 | | | ND | ND | | | | ND | | | | 0.03 | | | | 0.06 | | | | 0.47 | | | 0.017 | | 0.04 | | ND | | ND | | ND | | 0.03 | |
| Selenium | 0.01 | ND | | | ND | ND | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Silver | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Thallium | 0.2 | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Zinc | 0.05 | | | | 0.07 | | | | 0.05 | | | | 0.05 | | | | 0.04 | | | | 0.14 | | | ND | | 0.04 | | 0.03 | | 0.02 | | 0.02 | | ND | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 203 | 209 | 182 | 190 | 208 | 242 | 204 | 173 | 188 | 178 | 152 | 170 | 215 | 141 | 148 | 144 | 178 | 153 | 144 | 184 | 203 | 140 | 136 | 183 | 141 | 161 | 190 | 167 | 123 | 168 | 116 | 114 | 124 | 169 | 114 |
| Biochemical Oxygen Demand | <DL | | | | ND | ND | | | 7 | | | | 14 | | | | 10 | | | | 9 | | | 12 | | 22 | | 9 | | ND | | ND | | ND | |
| Boron | ND | | | | 0.08 | ND | | | ND | | | | 0.03 | | | | ND | | | | 0.07 | | | 0.087 | | 0.08 | | 0.09 | | 0.09 | | 0.09 | | 0.07 | |
| Chemical Oxygen Demand | 8.4 | 20 | 11 | ND | 7.0 | 5.0 | ND | 17.0 | 20.2 | 30.7 | 46 | 57.2 | 11.1 | 27.7 | 27.1 | 30.6 | 36.2 | 11.7 | 11.6 | 60.0 | 18.9 | 90.5 | 126 | ND | ND | 25.3 | ND | ND | 10.3 | ND | 32.3 | 31.4 | 37.1 | ND | 10.4 |
| Chromium (Hexavalent) | <DL | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Chloride | 16.9 | 18 | 16.6 | 12 | 11 | 14.0 | 16.0 | 14.0 | 15.9 | 10.8 | ND | 12.6 | 11.9 | 11.7 | 12.5 | 11.7 | 13 | 11.4 | 10.3 | 10.1 | 9.66 | 9.82 | 9.05 | 11.5 | ND | 10.6 | 8.33 | 8.17 | 10.3 | 10.6 | 10.2 | 9.22 | 9.24 | 8.19 | 11.3 |
| Color (PCU units) | 9 | | | | ND | | | | 20 | | | | 15 | | | | ND | | | | 25 | | | 30 | | 20 | | 300 | | 1250 | | 300 | | 250 | |
| Nitrate-Nitrite | <DL | <DL | 0.2 | ND | 0.04 | 0.4 | 0.18 | 0.28 | 0.67 | 0.22 | 0.22 | 0.21 | 0.22 | 0.39 | 0.11 | 0.16 | 0.15 | 0.12 | 0.06 | 0.552 | 0.08 | 0.206 | ND | 0.080 | 0.068 | ND | ND | 0.13 | 0.14 | 0.17 | 0.09 | 0.1 | 0.11 | 0.13 | 0.42 |
| Nitrogen-Ammonia | <DL | <DL | <DL | 0.1 | 0.2 | ND | 0.4 | 0.1 | 0.19 | 0.07 | 0.17 | 0.23 | 0.35 | 0.59 | 0.13 | 0.06 | 0.13 | 0.1 | 0.05 | 0.102 | 0.22 | 0.172 | 0.16 | 0.117 | 0.316 | 0.22 | 0.2 | 0.47 | 0.11 | 0.17 | 0.17 | 0.13 | 0.14 | 0.12 | ND |
| Phenols | 0.002 | ND | ND | ND | 0.020 | ND | ND | ND | ND | ND | ND | 0.015 | 0.013 | 0.100 | 0.002 | ND | 0.004 | ND | ND | 0.039 | 0.01 | ND | 0.020 | 0.004 | 0.007 | 0.002 | ND | ND | 0.01 | 0.01 | ND | ND | ND | ND | ND |
| Sulfate | 8 | 1 | 23 | ND | 26 | 47.0 | 58.0 | 26.0 | 22 | 21.0 | 20 | 16 | 12 | 17 | 11 | 12 | 12 | 11 | ND | 6.3 | 6.5 | 26 | 17 | 18 | 11 | 12 | 8.4 | 108 | 26 | ND | 19 | 14 | 14 | 8.62 | 15.2 |
| Total Organic Carbon (TOC) | 6.2 | 9 | 4.8 | 4 | 3.0 | 3.0 | 3.0 | 19.0 | 18 | 8.3 | 7.8 | 5.7 | 11.4 | 11 | 5.6 | 8.8 | 5.4 | 4.9 | 9.1 | 10.1 | 23.7 | 18.8 | 16.9 | 6.7 | 8.7 | 4.8 | 6 | 4.1 | 4.8 | 2.9 | 5.2 | 5.9 | 7.6 | 2.7 | 3.2 |
| Total Dissolved Solids (TDS) | 212 | 222 | 225 | 236 | 291 | 309 | 260 | 221 | 238 | 209 | 201 | 218 | 212 | 211 | 171 | 192 | 215 | 205 | 169 | 187 | 252 | 199 | 221 | 206 | 169 | 213 | 161 | 211 | 215 | 183 | 162 | 170 | 156 | 199 | 175 |
| Total Hardness | 178 | 163 | 191 | 178 | 203 | 205 | 178 | 192 | 241 | 175 | 259 | 189 | 201 | 218 | 211 | 180 | 257 | 163 | 132 | 140 | 191 | 179 | 191 | 155 | 151 | 160 | 130 | 154 | 111 | 112 | 122 | 142 | 129 | 154 | 135 |
| Total Kjeldahl Nitrogen (TKN) | 0.9 | | | | 1.1 | | | | 2.19 | | | | 3.36 | | | | ND | | | | ND | | | 3.10 | | ND | | 1.6 | | 3.26 | | ND | | 1.18 | |
| Turbidity (NTU units) | 75 | 320 | 128 | 175 | 308 | 79.0 | 44.0 | 107 | 600 | 52.0 | 170 | 31 | 31 | 60 | 100 | 40 | 270 | 17 | 69 | 19 | 280 | 43 | 80 | 33 | 24 | 70 | 19 | 66 | 54 | 700 | 37 | 77 | 23 | 168 | 6.8 |
| Cyanide | <DL | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |

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HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | ND | ND | ND | ND | 3.4 | ND | ND | ND | ND | ND | 1.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.7 | ND | 0.26 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromoform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| tert-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 60.0 |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chloroform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 7.0 |
| Chloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.22 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 3.0 |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 3.0 |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloroethane | 1.8 | 1.1 | 1.2 | 2 | 1.4 | 1.3 | 1.3 | 1.2 | 1.7 | 1.3 | 1.1 | 0.84 | 1.2 | 1 | 1.4 | 1.2 | 1.1 | 0.84 | 1.1 | ND | ND | 0.7 | ND | ND | 0.76 | 0.68 | ND | ND | ND | ND | ND | ND | ND | 1.08 | 5.0 |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.6 |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 5.0 |
| cis-1,2-Dichloroethene | 1.5 | 0.83 | 0.8 | 1.7 | 1.4 | 1.3 | 1.3 | 1.4 | 2.1 | 1.8 | 1.1 | 0.9 | 1.7 | 1.2 | 2 | 2.1 | 1.7 | 1 | 1.8 | ND | ND | 0.82 | ND | ND | 1.1 | 0.88 | ND | ND | ND | ND | ND | 1.2 | ND | 0.79 | 5.0 |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| Ethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| p-Isopropyltoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.08 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Naphthalene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 10.0 |
| n-Propylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Styrene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Toluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 5.0 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | 0.34 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 5.0 |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| Trichloroethene | 0.54 | ND | ND | ND | 0.44 | 0.46 | 0.44 | ND | 0.36 | 0.31 | 0.28 | ND | 0.25 | ND | 0.23 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.07 | 5.0 |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Vinyl chloride | ND | ND | ND | ND | 0.3 | 0.25 | ND | 0.22 | 0.43 | 0.35 | ND | ND | ND | ND | ND | 0.29 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.03 | 2.0 |
| o-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| p-Xylene & m-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 5.0 |

MW-13
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 5.93 | | 2.52 | | 9.4 | | 0.27 | | ND | | ND | 0.22 | | ND | | | 0.296 | ND | | | ND | 0.02 | 0 | - | 0.08 | ND | - | ND | 0.238 | 0.026 | ND | - | 0.0697 | 2.42 | |
| Calcium | 52.3 | 32.5 | 45.1 | 46.5 | 46.9 | 42.3 | 48.7 | 43.7 | 44.5 | 37.3 | 40.1 | 33.7 | 41.7 | 39.3 | 41.6 | 37.7 | 41.6 | 37.3 | 46.2 | 38 | 47 | 31.7 | 14.1 | 33.4 | 39.5 | 36.6 | 44.3 | 38.4 | 44 | 46.8 | 43.9 | 42.7 | 50.3 | 44.11 | |
| Iron | 10.8 | 6.82 | 4.89 | 1.26 | 12.8 | 0.74 | 0.33 | 0.07 | 0.12 | 0.1 | 0.16 | 0.36 | 0.21 | 0.133 | 0.103 | 0.223 | 0.409 | 0.14 | 0.21 | 0.039 | 0.19 | 0.1 | 0.34 | 1 | 0.19 | 0.08 | 0.42 | 0.101 | 0.459 | 0.0907 | 0.106 | 0.357 | 0.0952 | 7.66 | 0.3 |
| Magnesium | 13.8 | 9.53 | 10.9 | 10.7 | 12.9 | 10.7 | 12 | 11 | 11.6 | 10.2 | 10.4 | 9.2 | 10.8 | 10.5 | 11.1 | 10.5 | 10.8 | 10.4 | 12.6 | 11 | 13 | 9.6 | 5.3 | 10.6 | 10.3 | 10.6 | 11.3 | 9.95 | 11.9 | 13 | 11.9 | 12.1 | 13.8 | 11.55 | 35.0 |
| Manganese | 4.84 | 1.45 | 5.57 | 0.76 | 4.2 | 0.83 | 0.48 | 0.1 | 7.5 | 0.53 | 0.08 | 0.42 | 0.24 | 0.167 | 0.08 | 0.28 | 0.365 | 0.34 | 0.49 | 0.12 | 0.55 | 0.219 | 2.09 | 0.562 | 0.145 | 0.294 | 0.136 | 0.641 | 0.94 | 0.171 | 0.0609 | 1.12 | 0.17 | 1.72 | 0.3 |
| Potassium | 2.68 | 2.61 | 1.97 | 1.06 | 4.2 | 1.1 | 1.3 | 0.87 | 2.1 | 0.84 | 1.1 | 0.78 | 0.94 | 0.874 | 0.825 | 0.696 | 1.05 | 0.7 | 1.1 | 0.64 | 0.91 | 0.6 | ND | ND | 0.7 | 1.7 | ND | ND | ND | ND | 1.04 | 1.09 | 1.58 | 2.21 | |
| Sodium | 8.68 | 7.51 | 8 | 7.54 | 8.6 | 7.5 | 11.2 | 7.9 | 8.1 | 7.6 | 11 | 8.8 | 9.9 | 11.5 | 11.7 | 9.8 | 11.8 | 9.2 | 12.2 | 11 | ND | 11.5 | 1.9 | 10.8 | 10.1 | 11.3 | 10.4 | 11.2 | 12.4 | 10.7 | 10.2 | 8.94 | 11.6 | 8.35 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | 0.0035 | 0.00 | 0.003 |
| Arsenic | 0 | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.025 |
| Barium | 0.11 | | 0.1 | | 0.13 | | 0.01 | | 0.03 | | 0.013 | 0.018 | | 0.015 | | | 0.021 | 0.019 | | | ND | 0.016 | - | - | 0.019 | 0.022 | - | ND | ND | 0.017 | 0.0166 | - | 0.0194 | 0.06 | 1.0 |
| Beryllium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.0002 | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | |
| Cadmium | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.005 |
| Chromium (Total) | 0.02 | | ND | | 0.03 | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | 0.0044 | 0.02 | 0.05 |
| Copper | ND | | 0.01 | | 0.01 | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.2 |
| Lead | 0.01 | 0.01 | ND | ND | ND | ND | 0.01 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.001 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.025 |
| Mercury | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 6E-05 | - | ND | 0.00 | 0.0007 |
| Nickel | 0.04 | | ND | | 0.02 | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | 0.002 | - | ND | ND | 0.0021 | 0.0012 | - | 0.0017 | 0.02 | 0.1 |
| Selenium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.0 |
| Silver | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.05 |
| Thallium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.01 | 0.0005 |
| Zinc | 0.05 | | 0.02 | | 0.04 | | ND | | 0.02 | | 0.054 | 0.019 | | 0.033 | | | 0.098 | 0.031 | | | 0.074 | 0.041 | - | - | 0.03 | 0.015 | - | 0.0206 | 0.0267 | 0.0143 | 0.0225 | - | 0.0295 | 0.03 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 175 | 111 | 165 | 150 | 181 | 129 | 132 | 148 | 160 | 155 | 202 | 79.8 | 147 | 132 | 156 | 165 | 186 | 156 | 189 | 140 | 180 | 147 | 164 | 147 | 158 | 154 | 168 | 145 | 169 | 170 | 191 | 144 | 53.6 | 160.4 | |
| Biochemical Oxygen Demand | ND | | ND | | 2.5 | | ND | | ND | | ND | ND | | ND | | | ND | ND | | ND | ND | ND | - | - | ND | ND | ND | ND | ND | 1 | 1 | ND | ND | 2.4 | |
| Boron | 0.09 | | 0.06 | | 0.08 | | 0.07 | | 0.06 | | 0.073 | 0.045 | | 0.058 | | | 0.068 | 0.045 | | | ND | 0.07 | - | - | 0.06 | 0.06 | - | ND | 0.0569 | 0.0434 | 0.06 | - | 0.0734 | 0.0 | 1.0 |
| Chemical Oxygen Demand | 33.6 | ND | ND | 9 | 54.1 | ND | 12 | ND | ND | 12.9 | ND | ND | ND | ND | ND | ND | ND | ND | 11.4 | ND | ND | 6 | ND | 30.3 | ND | 9.7 | 9.7 | - | ND | 17.2 | 11.9 | 17.5 | 21.6 | 15.8 | |
| Chromium (Hexavalent) | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | 0.0059 | - | - | ND | 0.0 | 0.05 |
| Chloride | 11.2 | 8.78 | 8.4 | 7.5 | 5.7 | 6.6 | 10.2 | 8.1 | 6.5 | 6.5 | 6.2 | 6 | 7.4 | 6.9 | 5.43 | 5.94 | 5.66 | 6.7 | 7.1 | 5.52 | 4.96 | 6 | 5.7 | 5.3 | 4.4 | 6.3 | 5.3 | 4.82 | 4 | 6.3 | 4.4 | 5.1 | 4.0 | 8.8 | 250.0 |
| Color (PCU units) | 100 | | 5 | | 200 | | 25 | | 15 | | 60 | 18 | | 5 | | | 60 | 80 | | | ND | 12 | - | - | 14 | 16 | - | 10 | 5 | 5 | - | - | 10 | 81.7 | 15.0 |
| Nitrate-Nitrite | 0.13 | 0.14 | 0.2 | 0.07 | 0.1 | ND | 0.1 | 0.09 | ND | ND | 0.18 | 0.19 | 0.16 | 0.098 | 0.113 | ND | 0.086 | 0.068 | ND | 0.055 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.066 | 0.067 | ND | 0.062 | 0.1 | 10.0 |
| Nitrogen-Ammonia | 0.14 | ND | 0.2 | 0.2 | 0.14 | 0.2 | ND | ND | 0.21 | 0.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.084 | ND | 0.17 | 0.1 | 0.032 | 0.1 | 0.07 | 0.14 | 0.1 | 2.0 |
| Phenols | ND | ND | ND | 0 | 0.02 | ND | ND | ND | ND | ND | ND | ND | ND | 0.012 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.247 | ND | 0.0099 | 0.0015 | 0.0016 | 0.0034 | 0.0043 | 0.0 | 0.001 |
| Sulfate | 10.4 | 9.97 | 8.8 | 9.2 | 6.9 | 8 | 14.2 | 9.8 | 6.4 | 9.5 | 10.6 | 8.3 | 6.8 | 6.7 | 6.11 | 6.19 | 6.7 | 6.6 | 4.1 | ND | ND | 3.9 | 3.5 | 3.6 | 3.5 | 3.2 | 3.6 | ND | 8.5 | 9 | 5.8 | 5.1 | 4.7 | 12.7 | 250.0 |
| Total Organic Carbon (TOC) | 2.8 | 1.7 | 5 | 2.4 | 15.8 | 1.9 | 3 | 2.3 | 2.8 | 2.7 | 2.3 | 2.2 | 3.2 | 2.1 | 1.4 | 1 | 2.2 | 2 | ND | ND | ND | 2.4 | 2.4 | 2.2 | 2.2 | 2.2 | 543 | 2.21 | 3.5 | ND | 3.4 | 14.7 | 2.9 | 13.5 | |
| Total Dissolved Solids (TDS) | 197 | 149 | 190 | 192 | 220 | 163 | 255 | 220 | 334 | 157 | 148 | 179 | 163 | 193 | 144 | 193 | 188 | 178 | 175 | 260 | 190 | 161 | 167 | 164 | 172 | 168 | 183 | 163 | 204 | 197 | 195 | 157 | 181 | 198.5 | 500.0 |
| Total Hardness | 187 | 120 | 157 | 161 | 170 | 150 | 171 | 154 | 159 | 135 | 143 | 122 | 394 | 140 | 150 | 140 | 150 | 136 | 167 | 140 | 170 | 119 | 56.8 | 127 | 141 | 135 | 157 | 108 | 170 | 150 | 150 | 150 | 113 | 162.7 | |
| Total Kjeldahl Nitrogen (TKN) | ND | | ND | | 1.9 | | ND | | ND | | ND | ND | | ND | | | ND | ND | | ND | ND | ND | - | - | 0.29 | 0.21 | - | ND | 0.16 | 0.17 | 0.42 | 0.14 | 0.23 | 0.6 | |
| Turbidity (NTU units) | 140 | 53 | 190 | 110 | 149 | 246 | 21.2 | 40.6 | 21 | 10.3 | 9.2 | 4.6 | 8 | 30 | 1 | 8 | 32 | 5 | 8.1 | 12.3 | 10.1 | 13 | 5.1 | 21.7 | 5.4 | 23 | 14.3 | 5.3 | 11.7 | 6.3 | 17.7 | 10.2 | 5.5 | 82.7 | 5.0 |
| Cyanide | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected.
<DL = Detected below method detection limit.
J = Estimated.
B = Analyte was detected in method blank.

MW-14
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | ND | 0.44 | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| tert-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | ND | ND | ND | ND | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Isopropyltoluene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | 2.0 | 1.0 | 1.0 | 3.0 | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| n-Propylbenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Styrene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | ND | <DL | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | 8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | 0.7 | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | ND | ND | ND | ND | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | ND | ND | ND | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Xylene & m-Xylene | | | | ND | ND | | | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-14
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 22 | | | | 7.7 | | | | 3.42 | | | | 6.45 | | | | 13.4 | | | | 7.68 | | | 4.10 | | 7.33 | | 1.28 | | 1.66 | | 0.34 | | 0.83 | |
| Calcium | 50.7 | 65.1 | 58.2 | 69.6 | 80.5 | 82.8 | 79.9 | 70.7 | 84.3 | 82.6 | 80.9 | 73.7 | 78.4 | 84.2 | 75.4 | 73.1 | 83.7 | 72.8 | 69.6 | 67.8 | 80.6 | | 79.1 | 66.4 | 80.7 | 81.1 | 71.5 | 48.8 | 79.1 | 62.4 | 49.6 | 47.8 | 54.8 | 44.4 | 65.1 |
| Iron | 49.5 | 4.6 | 0.55 | 1.24 | 13.6 | 2.15 | 1.6 | 1.2 | 6.8 | 9.02 | 9.63 | 5.92 | 11.5 | 14 | 6.26 | 16 | 22.1 | 15.6 | 16.9 | 20.2 | 15.6 | | 3.88 | 7.79 | 6.49 | 8.5 | 6.74 | 1.72 | 5.24 | 3.11 | 0.73 | 0.77 | 0.53 | 1.59 | 1.68 |
| Magnesium | 17.7 | 15.9 | 17.2 | 19.5 | 22.6 | 19.5 | 19.1 | 19.3 | 21.7 | 21.5 | 21 | 19.1 | 20.6 | 22 | 19.9 | 20.7 | 21.4 | 19.1 | 19 | 19.4 | 21.8 | | 19.1 | 17.5 | 20.8 | 20.5 | 19.7 | 17.6 | 17.8 | 13.8 | 13.1 | 11.2 | 14.2 | 14.4 | 15.9 |
| Manganese | 2.28 | 0.9 | 0.58 | 0.32 | 0.54 | 0.39 | 0.08 | 0.05 | 0.39 | 0.03 | 0.35 | 0.23 | 0.5 | 0.66 | 0.37 | 0.76 | 0.79 | 0.64 | 0.598 | 0.870 | 0.85 | | 0.21 | 0.447 | 0.258 | 0.43 | 0.46 | 0.12 | 0.37 | 0.33 | 0.07 | 0.22 | 0.06 | 0.06 | 0.096 |
| Potassium | 7.3 | 3.9 | 7.5 | 6.8 | 6.5 | 3.4 | 7.2 | 6.3 | 5.12 | 5.4 | 9.59 | 5.27 | 4.34 | 8.58 | 4.04 | 7.26 | 6.86 | 5.83 | 6.45 | 5.82 | 3.97 | | 3.53 | 3.62 | 5.01 | 5.69 | 4.5 | 5.92 | 5.45 | 3.16 | 9.09 | 3.5 | 2.51 | 2.83 | 2.59 |
| Sodium | 8.9 | 10.2 | 14.5 | 20.4 | 18.3 | 12.9 | 27.3 | 20.5 | 17.5 | 16.5 | 20.9 | 18.7 | 15.9 | 15.7 | 14.2 | 18.3 | 18 | 15 | 14.7 | 15.5 | 15.7 | | 12.3 | 14.9 | 16.2 | 16 | 15.4 | 18.5 | 15.2 | 16.9 | 18.9 | 17.4 | 15.5 | 17.3 | 16.4 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | 0.01 | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | 0.028 | | ND | | ND | | ND | | ND | | ND | |
| Arsenic | ND | | | | ND | | | | 0.003 | | | | 0.004 | | | | ND | | | | 0.01 | | | 0.004 | | ND | | 0 | | 0 | | ND | | ND | |
| Barium | 0.15 | | | | 0.08 | | | | 0.08 | | | | 0.1 | | | | 0.14 | | | | 0.12 | | | 0.087 | | 0.13 | | 0.12 | | 0.1 | | 0.1 | | 0.15 | |
| Beryllium | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Cadmium | | <DL | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.002 | ND | 0.01 | | ND | ND | ND | ND | ND | 0.01 | ND | ND | ND | ND | ND | ND | ND |
| Chromium (Total) | 0.02 | 0 | 0 | ND | 0.02 | ND | ND | ND | 0.02 | 0.03 | 0.03 | 0.02 | 0.03 | 0.03 | 0.02 | 0.06 | 0.05 | 0.07 | 0.05 | 0.034 | 0.03 | | ND | 0.024 | 0.044 | 0.34 | 0.03 | ND | 0.02 | 0.02 | 0.02 | ND | ND | ND | 0.003 |
| Copper | ND | | | | 0.01 | | | | ND | | | | 0.01 | | | | 0.03 | | | | 0.02 | | | ND | | 0.02 | | ND | | ND | | ND | | ND | |
| Lead | 0.013 | <DL | <DL | ND | 0.005 | ND | 0.070 | 0.010 | 0.001 | 0.005 | 0.003 | 0.005 | 0.007 | 0.006 | 0.005 | 0.010 | 0.011 | 0.007 | 0.006 | 0.007 | 0.01 | | 0 | 0.024 | 0.005 | 0.01 | 0 | 0 | 0 | 0 | ND | 0 | ND | 0.01 | 0.001 |
| Mercury | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Nickel | 0.14 | | | | ND | | | | ND | | | | 0.03 | | | | 0.05 | | | | 0.03 | | | 0.020 | | 0.15 | | ND | | ND | | ND | | ND | |
| Selenium | 0.03 | <DL | <DL | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Silver | | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Thallium | 0.2 | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | ND | | ND | | ND | |
| Zinc | 0.11 | | | | 0.06 | | | | 0.03 | | | | 0.05 | | | | 0.09 | | | | 0.07 | | | 0.054 | | 0.07 | | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 207 | 224 | 226 | 209 | 244 | 233 | 299 | 236 | 237 | 221 | 236 | 231 | 189 | 227 | 221 | 244 | 235 | 225 | 232 | 237 | | | 224 | | 234 | 235 | 171 | 189 | | | 139 | 136 | 187 | 139 | 165 |
| Biochemical Oxygen Demand | 8 | | | | ND | | | | 6 | | | | ND | | | | ND | | | | 19 | | | 3 | | 8 | | 3 | | | | | | | |
| Boron | ND | | | | 0.04 | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | 0.06 | | ND | | ND | | ND | |
| Chemical Oxygen Demand | 15.9 | <DL | <DL | ND | ND | ND | ND | ND | 12.2 | ND | 1.75 | 17.1 | ND | ND | ND | ND | ND | 30.9 | ND | 14.3 | | | ND | | ND | 21.4 | ND | ND | | | 15.9 | ND | ND | ND | ND |
| Chromium (Hexavalent) | <DL | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | | | | | ND | |
| Chloride | 2.4 | 8 | 7.8 | 3 | 9 | ND | ND | 4.0 | ND | 1.9 | ND | 2.5 | ND | 2.08 | 1.87 | 2.15 | 2.69 | 2.07 | 2 | ND | | | ND | | 1.94 | 1.74 | 2.01 | 1.35 | | | ND | 1.58 | 1.68 | | 1.52 |
| Color (PCU units) | 25 | | | | ND | | | | 20 | | | | | | | | 5 | | | | | | | | | 30 | | 250 | | | | | | 75 | |
| Nitrate-Nitrite | <DL | <DL | <DL | ND | 0.05 | ND | ND | 0.1 | 0.19 | 1.3 | 0.14 | 6.89 | 0.13 | 0.43 | 0.09 | 0.08 | 0.49 | 0.2 | 0.09 | 0.252 | | | ND | | 0.19 | 0.15 | 0.14 | 0.46 | | | 0.31 | 0.53 | 0.21 | 0.4 | 0.363 |
| Nitrogen-Ammonia | <DL | <DL | <DL | ND | 0.1 | ND | 0.3 | ND | 0.21 | 0.1 | 0.05 | 0.08 | 0.1 | 0.67 | 0.17 | 0.2 | 0.07 | 0.06 | 0.1 | 0.021 | | | 0.140 | | 0.012 | ND | ND | 0.49 | | | ND | | ND | ND | ND |
| Phenols | 0.002 | ND | <DL | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.002 | 0.004 | 0.001 | ND | ND | ND | ND | 0.054 | 0.03 | | 0.01 | | ND | ND | ND | ND | | | ND | | ND | ND | 0.0042 |
| Sulfate | 63.3 | 47.3 | 59.8 | 68 | 81 | 173 | 64.0 | 109 | 90 | 100 | 75 | 93 | 94 | 82 | 68 | 100 | 80 | 100 | 80 | 69 | | | 77 | | 75 | 69 | 79 | 54 | | | 66 | 99 | 75 | | 82.1 |
| Total Organic Carbon (TOC) | 5.2 | 4 | 2.3 | 2 | 1 | 1.0 | 1.0 | 3.5 | 4.8 | 4.0 | 1.2 | 2.0 | 1.2 | 3 | 1.2 | 5.8 | ND | 1.1 | 2.7 | 14.5 | | | 2.4 | | 1.9 | 1.2 | 1.4 | 2.5 | | | 1.2 | 1.6 | 1.7 | 1.3 | 1.1 |
| Total Dissolved Solids (TDS) | 305 | 310 | 316 | 331 | 373 | 375 | 429 | 369 | 395 | 348 | 371 | 377 | | 383 | 319 | 306 | 317 | 344 | 340 | 327 | | | 326 | | 331 | 338 | 288 | 282 | | | 270 | 238 | 281 | 241 | 285 |
| Total Hardness | 199 | 228 | 216 | 254 | 294 | 287 | 278 | 256 | 346 | 315 | 315 | 287 | | 378 | 355 | 293 | 387 | 260 | 252 | 249 | | | 276 | | 287 | 287 | 260 | 194 | | | 178 | 165 | 195 | 170 | 228 |
| Total Kjeldahl Nitrogen (TKN) | <DL | | | | 0.9 | | | | ND | | | | 2.42 | | | | 1.39 | | | | ND | | | 2.98 | | ND | | ND | | | | | | | |
| Turbidity (NTU units) | 70 | 905 | 225 | 230 | 242 | 171 | 304 | 456 | 320 | 320 | 240 | 240 | 170 | 200 | 480 | 58 | 200 | 97 | 110 | 270 | | | 360 | | 225 | 280 | 85 | 57 | | | 19 | | 15 | 87 | 78 |
| Cyanide | 0.01 | | | | ND | | | | ND | | | | ND | | | | ND | | | | ND | | | ND | | ND | | ND | | | | ND | | | |

MW-14
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | ND | ND | ND | ND | 5.1 | 1.6 | 1.6 | ND | 4.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.46 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Benzene | ND | ND | 0.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.26 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.03 | 1.0 |
| Bromobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromoform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | 7.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.28 | 50.0 |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| tert-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 60.0 |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chloroform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 7.0 |
| Chloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 3.0 |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 3.0 |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.6 |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| Ethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| p-Isopropyltoluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.12 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Naphthalene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 10.0 |
| n-Propylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Styrene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Toluene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.13 | 5.0 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | 0.69 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Vinyl chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 2.0 |
| o-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| p-Xylene & m-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |

MW-14
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 0.4 | | 4.33 | | 1.1 | | ND | | ND | | 0.24 | ND | | ND | | | ND | ND | | | | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | 0.0766 | 2.42 | |
| Calcium | 35.5 | 40.3 | 96.8 | 67.5 | 52.7 | 68.3 | 34.6 | 23.5 | 55.6 | 33 | 57.1 | 37.2 | 31 | 26.1 | 56.5 | 43.2 | 49.1 | 61.7 | 53.9 | 32 | | 41.5 | 50 | 54.9 | 59.1 | 45.8 | 55.1 | 50.6 | 59.9 | 60.1 | 52.8 | 59.4 | 66.1 | 60.70 | |
| Iron | 0.84 | 1.77 | 9.15 | 0.54 | 1.5 | 0.64 | 0.07 | 0.06 | 0.16 | 0.07 | 0.74 | 0.11 | 0.22 | 0.089 | 0.165 | 0.06 | 0.05 | ND | 0.13 | 0.049 | | 0.03 | ND | ND | 0.13 | 0.05 | ND | ND | 0.162 | ND | 0.106 | 0.0518 | 0.0552 | 4.69 | 0.3 |
| Magnesium | 10.3 | 12.4 | 14.4 | 8.7 | 15.5 | 15.8 | 25.4 | 16.6 | 19.1 | 17.1 | 19.1 | 18.1 | 21.3 | 14.8 | 17 | 17.9 | 17.8 | 16.9 | 16.4 | 19 | | 14 | 15.1 | 15.3 | 15 | 14.6 | 14.7 | 13.4 | 15.2 | 15 | 13 | 14.3 | 15.9 | 17.31 | 35.0 |
| Manganese | 0.04 | 0.06 | 0.31 | 0.06 | 0.08 | 0.06 | ND | ND | 0.11 | ND | 0.024 | 0.027 | 0.033 | ND | 0.215 | ND | ND | 0.12 | 0.12 | ND | | 0.008 | 0.035 | 0.015 | 0.246 | 0.013 | 0.208 | 0.0524 | 0.126 | 0.0682 | 0.0486 | 0.05 | 0.183 | 0.27 | 0.3 |
| Potassium | 3.2 | 3.71 | 4.33 | 5.48 | 3.7 | 3.8 | 2.7 | 3.6 | 2.5 | 3 | 3.3 | 2.6 | 3.9 | 3.72 | 2.09 | 2.24 | 2.45 | 2 | 2.4 | 2.2 | | 1.8 | 2 | ND | 1.7 | 2.1 | ND | ND | ND | 1.92 | 2.18 | 1.78 | 2.32 | 3.99 | |
| Sodium | 14.9 | 15.6 | 13.4 | 18 | 17 | 17.2 | 17.8 | 18.3 | 15.9 | 15.2 | 15.9 | 16.2 | 15.8 | 16.7 | 14.2 | 13.5 | 14.1 | 13.1 | 11.4 | 10 | | 9.9 | 9.3 | 9.5 | 9.4 | 10.5 | 10 | 10.6 | 10.4 | 9.93 | 8.54 | 9.46 | 11.1 | 14.90 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.003 |
| Arsenic | 0 | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.025 |
| Barium | 0.12 | | 0.3 | | 0.22 | | 0.1 | | 0.08 | | 0.15 | 0.064 | | 0.138 | | | 0.06 | 0.068 | | | | 0.071 | - | - | 0.054 | 0.065 | - | ND | ND | 0.0415 | 0.0403 | - | 0.0405 | 0.09 | 1.0 |
| Beryllium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | | 0.0002 | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | |
| Cadmium | ND | 0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.005 |
| Chromium (Total) | ND | 0.01 | 0.02 | ND | 0.02 | 0.01 | ND | ND | ND | | 0.006 | ND | ND | ND | ND | | ND | ND | | | | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | 0.0032 | 0.02 | 0.05 |
| Copper | ND | | 0.01 | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.2 |
| Lead | 0 | 0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.001 | | 0.0009 | ND | ND | ND | ND | ND | 0.0039 | ND | ND | 0.0013 | ND | ND | 0.00 | 0.025 |
| Mercury | ND | | ND | ND | ND | | 0.01 | | ND | | ND | ND | | ND | | | ND | ND | | | | ND | - | - | ND | ND | - | ND | ND | ND | 7E-05 | - | ND | 0.00 | 0.0007 |
| Nickel | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | | ND | - | - | ND | ND | - | ND | ND | ND | 0.0012 | - | ND | 0.01 | 0.1 |
| Selenium | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | | | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.0 |
| Silver | ND | | ND | ND | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.05 |
| Thallium | ND | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.01 | 0.0005 |
| Zinc | 0.02 | | 0.03 | | ND | | ND | | ND | | 0.015 | 0.016 | | 0.01 | | | 0.015 | ND | | | | 0.007 | - | - | 0.007 | ND | - | ND | 0.028 | 0.0016 | 0.0075 | - | 0.0051 | 0.02 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | | 145 | 34 | 146 | 139 | | 355 | ND | 158 | | 181 | | | 159 | 179 | | 257 | 218 | 190 | ND | 210 | 205 | 216 | 216 | 205 | 210 | 187 | - | 243 | 282 | 207 | 232 | 196.5 | |
| Biochemical Oxygen Demand | | | ND | | | | | | | | | | | | | | | ND | | ND | ND | ND | - | - | - | ND | ND | ND | - | 1 | 1 | ND | ND | 2.0 | |
| Boron | ND | | ND | | ND | | ND | | ND | | 0.03 | 0.03 | | 0.027 | | | 0.033 | 0.031 | | | | ND | - | - | ND | 0.04 | - | ND | ND | 0.0215 | 0.0195 | - | 0.0225 | 0.0 | 1.0 |
| Chemical Oxygen Demand | | | ND | 13 | 92.1 | ND | ND | ND | ND | ND | | ND | | | ND | ND | ND | ND | ND | ND | 20 | ND | ND | ND | ND | ND | 5.2 | - | ND | 13 | 24.6 | 17.5 | 27.7 | 5.9 | |
| Chromium (Hexavalent) | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | - | 0.0086 | - | - | ND | 0.0 | 0.05 |
| Chloride | | | 1.5 | ND | 1.5 | 1.6 | | 1.4 | 1.6 | 1.4 | | | | | 1.42 | 1.94 | 1.62 | 1.7 | 1.7 | 1.91 | 15.1 | ND | 2.7 | 2 | 2.1 | 2.2 | 2.3 | 2.04 | - | 2.7 | 2.2 | 2.0 | 2.3 | 2.2 | 250.0 |
| Color (PCU units) | | | 5 | | 120 | | | | | | | | | | | | | ND | | | ND | 7 | - | - | 13 | 14 | - | 5 | 20 | 10 | - | - | 5 | 26.3 | 15.0 |
| Nitrate-Nitrite | | | 0.09 | 0.05 | 0.05 | ND | | ND | ND | ND | | | | | 0.285 | | 0.106 | ND | ND | 0.095 | | ND | ND | ND | ND | ND | ND | ND | ND | 0.086 | 0.55 | ND | ND | 0.3 | 10.0 |
| Nitrogen-Ammonia | | | ND | ND | ND | 0.13 | ND | ND | ND | ND | | ND | | | 0.116 | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.11 | 0.12 | 0.024 | 0.051 | 0.02 | 0.047 | 0.1 | 2.0 |
| Phenols | | | ND | | 0.02 | ND | ND | ND | ND | 0.01 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | ND | ND | ND | ND | ND | ND | ND | ND | 0.0065 | 0.0043 | 0.0074 | 0.0 | 0.001 |
| Sulfate | | | | 49 | 48.4 | 55.4 | | 53.8 | 50.7 | 44.7 | | | | | 37.9 | 33.3 | 33.6 | 30.4 | 22 | 19 | 16.9 | 17 | 16.1 | 15.6 | 13.6 | 15.1 | 14.4 | 12.4 | - | 18.2 | 13.4 | 12.8 | 14.6 | 56.1 | 250.0 |
| Total Organic Carbon (TOC) | ND | ND | ND | 1.3 | 20 | ND | ND | | ND | 1.9 | 11.1 | ND | 4.9 | 1.3 | 1.3 | ND | 1 | ND | ND | ND | | ND | 1.1 | ND | ND | 1.2 | ND | ND | 2.3 | 0.085 | 4.5 | 10.7 | 0.81 | 2.3 | |
| Total Dissolved Solids (TDS) | | | 305 | | 259 | 215 | | 229 | 278 | 232 | | | | | 255 | 245 | | 238 | 215 | 350 | 240 | 215 | 223 | 229 | 228 | 211 | 231 | 209 | - | 249 | 225 | 202 | 216 | 283.3 | 500.0 |
| Total Hardness | | | 301 | 205 | 195 | 236 | 191 | 127 | 217 | 153 | | 167 | | | 210 | 180 | 200 | 224 | 202 | 160 | | 161 | 187 | 200 | 209 | 175 | 206 | 132 | 200 | 240 | 190 | 190 | 187 | 231.0 | |
| Total Kjeldahl Nitrogen (TKN) | | | ND | | 1.8 | | ND | | ND | | | ND | | | | | ND | ND | | ND | 0.597 | ND | - | - | ND | ND | - | ND | 0.98 | 0.14 | 0.59 | ND | ND | 0.4 | |
| Turbidity (NTU units) | | | 74 | 67 | 129 | 415 | | 21.7 | | 24.1 | | 6.3 | 16.7 | 22 | 3 | 2 | 42 | 6 | 5 | 6.2 | 50.1 | 3.2 | 3 | 0 | 4.4 | ND | 5.3 | 3.3 | 9.9 | 1.8 | 25 | 6.3 | 5.5 | 131.1 | 5.0 |
| Cyanide | | | | | ND | | ND | | ND | | | ND | | ND | | | ND | 0.16 | | | | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.

* = Applies to the sum of cis and trans-1,3-dichloropropene.

** = Guidance Value.

ND values are included in calculation of Mean and are considered equal to zero.

(Blank) or "-" = Not Analyzed.

ND = Not Detected. J = Estimated.

<DL = Detected below method detection limit. B = Analyte was detected in method blank.

SEEP
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | ND | 3.02 | 2.66 | 3.0 | | 2.0 | 2.0 | | 1.0 | | 2.0 | | 2 | | 1 | | 3 | | 2 | | | | 1 | 1 | 1 | 1 | 2 | | 2 | 3 | 2 | 2 | 2 | | 2.59 |
| Bromobenzene | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Bromochloromethane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Bromodichloromethane | ND | ND | <DL | ND | | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | ND | ND | ND | | ND | ND | | 0.6 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| sec-Butylbenzene | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| tert-Butylbenzene | ND | 0.32 | <DL | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Chlorobenzene | ND | 1.08 | 0.91 | ND | | 1.0 | 1.0 | | 1.0 | | 0.9 | | 0.8 | | 0.6 | | 2 | | 0.9 | | | | 0.9 | 0.7 | 0.8 | 1 | 1 | | 1 | 2 | 1 | 1 | 1 | | 2.71 |
| Chloroethane | ND | ND | <DL | ND | | 1.0 | 2.0 | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Chloroform | ND | 2.06 | <DL | ND | | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2-Chlorotoluene | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 4-Chlorotoluene | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Dibromochloromethane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | ND | | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | ND | ND | ND | | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2-Dichlorobenzene | ND | 0.31 | 0.21 | ND | | ND | ND | | 0.6 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,3-Dichlorobenzene | ND | <DL | <DL | ND | | ND | ND | | 0.6 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,4-Dichlorobenzene | 0.35 | 1.72 | 1.08 | ND | | 1.0 | 2.0 | | 1.0 | | 0.9 | | 0.7 | | 0.6 | | 1 | | 0.7 | | | | 0.7 | 0.6 | 0.6 | 0.8 | 0.7 | | 0.8 | 1 | 0.8 | 0.7 | 0.7 | | 1.96 |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | ND | ND | 2.0 | | ND | ND | | ND | | 0.5 | | ND | | ND | | 1 | | 0.7 | | | | 0.9 J | ND | ND | ND | ND | | ND | ND | ND | ND | 0.7 | | ND |
| 1,1-Dichloroethane | 2.29 | 10.6 | 8.77 | 16.0 | | 9.0 | 16.0 | | 3.0 | | 6.0 | | 6 | | 3 | | 9 | | ND | | | | 4 | 5 | 4 | 5 | 6 | | 5 | 7 | 6 | 6 | 7 | | 5.26 |
| 1,2-Dichloroethane | <DL | 0.51 | 0.29 | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1-Dichloroethene | ND | ND | <DL | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | 6 | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| cis-1,2-Dichloroethene | ND | 32.3 | 23.3 | 9.0 | | 11.0 | 15.0 | | 5.0 | | 7.0 | | 5 | | 5 | | 11 | | 11 | | | | 6 | 4 | 6 | 5 | 8 | | 6 | 10 | 9 | 11 | 10 | | 7.19 |
| trans-1,2-Dichloroethene | 3.03 | 1.66 | 0.80 | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2-Dichloropropane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,3-Dichloropropane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2,2-Dichloropropane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1-Dichloropropene | ND | ND | <DL | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| cis-1-3-Dichloropropene | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Ethylbenzene | ND | 0.53 | 0.14 | 3.0 | | 2.0 | ND | | 1.0 | | 1.0 | | 2 | | ND | | 2 | | 0.6 | | | | ND | 0.7 | ND | ND | ND | | ND | ND | ND | ND | ND | | 1.11 |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | ND | ND | ND | | ND | ND | | 0.6 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | ND | <DL | 0.33 | ND | | ND | ND | | 0.5 | | ND | | ND | | ND | | 0.5 | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | 1.17 |
| p-Isopropyltoluene | ND | 2.03 | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Methylene chloride | ND | <DL | <DL | 1.0 | | 2.0 | 25.0 | | 0.6 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | ND | 0.91 | 0.20 | ND | | ND | ND | | 0.5 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| n-Propylbenzene | ND | 0.22 | 0.19 | ND | | ND | ND | | 0.5 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Styrene | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Tetrachloroethene | ND | ND | <DL | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Toluene | ND | 0.76 | 0.35 | ND | | 2.0 | ND | | ND | | ND | | 1 | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | | ND | ND | | 0.6 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,1-Trichloroethane | ND | 4.47 | 3.19 | ND | | 1.0 | 1.0 | | 0.5 | | ND | | ND | | ND | | ND | | 1 | | | | 0.6 | ND | 0.7 | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Trichloroethene | <DL | 26.47 | 12.7 | 5.0 | | 2.0 | ND | | 2.0 | | 7.0 | | 1 | | 2 | | 21 | | 4 | | | | 3 | 2 | 1 | 4 | 2 | | 2 | 2 | 2 | 14 | 4 | | 1.63 |
| Trichlorofluoromethane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | | ND | ND | | 0.7 | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | | ND | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | ND | 2.11 | 12.0 | | 10.0 | 19.0 | | 5.0 | | 4.0 | | 4 | | 3 | | 7 | | 6 | | | | 4 | 2 | 3 | 3 | 5 | | 3 | 5 | 4 | 4 | 4 | | ND |
| o-Xylene | ND | <DL | 1.12 | ND | | | | | ND | | ND | | ND | | ND | | ND | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| p-Xylene & m-Xylene | | | 0.29 | 2.0 | | | | | 1.8 | | 0.6 | | 0.6 | | ND | | 0.7 | | ND | | | | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |

SEEP
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | ND | | | | | | | | 0.06 | | | | 0.2 | | | | 0.87 | | | | | | | ND | | 0.23 | | | | 0.09 | | ND | | | |
| Calcium | 12.8 | 40 | 32.8 | 41.6 | | 29.0 | 35.3 | 42.1 | 26.7 | 33.8 | 33.2 | 39.3 | 38.2 | 35.7 | 28 | 28.1 | 40.6 | 29 | 29.9 | 39.5 | | 45.8 | 29.6 | 32.4 | 27.6 | 32.2 | 37.3 | | 40.4 | 49.2 | 39.2 | 41.6 | 38 | | 54.2 |
| Iron | 3.62 | 17.1 | 9.6 | 24.7 | | 8.94 | 8.2 | 57.7 | 5.53 | 8.32 | 16.1 | 14.0 | 22.1 | 9.8 | 6.49 | 8.4 | 47.9 | 10.5 | 9.41 | 16.7 | | 16.4 | 7.44 | 8.89 | 23.8 | 11.1 | 18.7 | | 12.1 | 11.8 | 6.2 | 17.7 | 19.1 | | 121 |
| Magnesium | 4 | 9 | 10.3 | 13.6 | | 9.0 | 10.9 | 14.3 | 8.26 | 10.1 | 10.7 | 12.9 | 12.8 | 11.6 | 9.09 | 8.86 | 12.6 | 8.86 | 9.17 | 13.5 | | 14.4 | 8.82 | 10.9 | 8.98 | 10.7 | 11.2 | | 12.8 | 16.2 | 12.7 | 14.3 | 12.5 | | 14.6 |
| Manganese | 3.85 | 11.3 | 9.2 | 9.65 | | 6.3 | 9.48 | 10.8 | 5.52 | 8.82 | 8.02 | 9.59 | 8.5 | 8.4 | 5.74 | 6.53 | 8.82 | 6.89 | 6.97 | 8.63 | | 10.8 | 6.39 | 6.59 | 6.23 | 6.24 | 8.21 | | 6.68 | 9.27 | 7.13 | 8.03 | 7.73 | | 11.3 |
| Potassium | 2 | 3.2 | 2.4 | 3.3 | | 3.2 | 4.5 | 4.2 | 3.34 | 3.78 | 2.22 | 2.92 | 2.63 | 3.23 | 3.04 | 2.53 | 2.94 | 2.9 | 2.6 | 3.20 | | 3.89 | 2.39 | 2.85 | 2.56 | 2.94 | 2.76 | | 3.4 | 3.94 | 3.23 | 3.39 | 2.93 | | 4.3 |
| Sodium | 4 | 10.3 | 7.1 | 8.2 | | 8.3 | 8.8 | 10.1 | 7.22 | 7.23 | 6.31 | 6.64 | 7.92 | 6.71 | 6.43 | 6.12 | 9 | 6.11 | 5.25 | 7.41 | | 8.17 | 4.80 | 6.69 | 5.12 | 6.37 | 5.46 | | 7.08 | 9.23 | 6.51 | 7.54 | 6.08 | | 8.06 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | | | | | | | ND | | | | ND | | | | 0.03 | | | | | | | 0.028 | | ND | | | | ND | | ND | | | |
| Arsenic | <DL | | | | | | | | 0.005 | | | | 0.019 | | | | 0.040 | | | | | | | 0.009 | | 0.02 | | | | 0.01 | | 0.027 | | | |
| Barium | 0.05 | | | | | | | | 0.11 | | | | 0.18 | | | | 0.22 | | | | | | | 0.131 | | 0.14 | | | | 0.21 | | 0.172 | | | |
| Beryllium | | ND | | | | | | | ND | | | | ND | | | | ND | | | | | | | ND | | ND | | | | ND | | ND | | | |
| Cadmium | | <DL | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Chromium (Total) | ND | | | | | | | | ND | | | | 0 | | | | 0.02 | | | | | | | ND | | ND | | | | ND | | ND | | | |
| Copper | ND | | | | | | | | ND | | | | ND | | | | ND | | | | | | | ND | | ND | | | | ND | | ND | | | |
| Lead | ND | | 0.003 | ND | | ND | 0.030 | 0.014 | ND | ND | 0.002 | 0.001 | 0 | 0.007 | 0.002 | 0.002 | 0.005 | 0.001 | ND | 0.007 | | 0.002 | 0.001 | 0.006 | 0.005 | 0 | ND | | 0 | 0 | ND | 0.005 | 0 | | 0.004 |
| Mercury | ND | | | | | | | | ND | | | | ND | | | | ND | | | | | | | ND | | ND | | | | ND | | ND | | | |
| Nickel | 0.11 | | | | | | | | ND | | | | 0.03 | | | | 0.05 | | | | | | | 0.023 | | 0.03 | | | | 0.04 | | 0.032 | | | |
| Selenium | ND | <DL | | | | | | | ND | | | | ND | | | | ND | | | | | | | ND | | ND | | | | ND | | ND | | | |
| Silver | ND | | | | | | | | ND | | | | ND | | | | 0.01 | | | | | | | ND | | ND | | | | ND | | ND | | | |
| Thallium | <DL | | | | | | | | ND | | | | ND | | | | ND | | | | | | | ND | | ND | | | | ND | | ND | | | |
| Zinc | ND | | | | | | | | 0.003 | | | | 0.02 | | | | 0.02 | | | | | | | ND | | 0.02 | | | | 0.03 | | ND | | | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 102 | 190 | 167 | 176 | | 168 | 204 | 194 | 112 | 143 | 86.4 | 224 | 169 | 173 | 124 | 125 | 213 | 166 | 155 | 211 | | 204 | 80.0 | 160 | 104 | 139 | 169 | | 190 | 227 | 177 | 160 | 182 | | 192 |
| Biochemical Oxygen Demand | 3 | | | | | | | | ND | | | | ND | | | | 4 | | | | | | | ND | | ND | | | | ND | | ND | | | |
| Boron | ND | | | | | | | | ND | | | | ND | | | | ND | | | | | | | 0.074 | | 0.07 | | | | 0.11 | | 0.113 | | | |
| Chemical Oxygen Demand | 4.5 | 18 | 20 | 9 | | 24.0 | 22.0 | 22.0 | 27.1 | 16.2 | 21.8 | 14.4 | ND | 21 | 14.4 | ND | 46.1 | ND | ND | 15.3 | | 18.4 | ND | ND | ND | ND | ND | | 17.4 | ND | 23.6 | ND | 15.8 | | 23.6 |
| Chromium (Hexavalent) | ND | | | | | | | | ND | | | | ND | | | | ND | | | | | | | ND | | ND | | | | ND | | ND | | | |
| Chloride | 6.1 | 13 | 15 | 15 | | 13.0 | 20.0 | 17.0 | 7.14 | 8.5 | 11 | 12.8 | 12.8 | 10.4 | 7.34 | 7.71 | 16.8 | 7.71 | 7.69 | 11.6 | | 14 | 7.72 | 10.4 | 5.54 | 8.17 | 7.24 | | 12.2 | 14.9 | 7.56 | 9.45 | 6.97 | | 10.9 |
| Color (PCU units) | 45 | | | | | | | | 65.0 | | | | 75 | | | | 60 | | | | | | | 150 | | 40 | | | | 25 | | 300 | | | |
| Nitrate-Nitrite | 0.1 | <DL | <DL | ND | | 0.22 | ND | ND | 0.52 | 1.3 | 1.52 | 0.18 | ND | 0.63 | ND | 0.11 | ND | ND | ND | ND | | 1.9 | ND | ND | ND | 1.47 | ND | | 0.11 | 3.06 | 0.09 | 0.191 | ND | | 0.289 |
| Nitrogen-Ammonia | 1.5 | <DL | <DL | 0.3 | | 1.5 | 3.1 | 7.4 | 2.93 | 3.5 | 3.07 | 3.55 | 3.61 | 2.87 | 1.21 | 2.44 | 3.74 | 2.76 | 2.93 | 3.02 | | 2.61 | 2.24 | 2.59 | 2.31 | 2.18 | 3.06 | | 1.86 | 3.11 | 2.25 | 2.63 | 2.48 | | 2.82 |
| Phenols | 0.003 | <DL | ND | 0.006 | | ND | ND | ND | 0.009 | 0.026 | 0.010 | 0.017 | 0.023 | 0.001 | 0.006 | 0.003 | 0.015 | 0.012 | 0.006 | 0.021 | | 0.035 | 0.012 | 0.012 | 0.006 | 0.01 | 0.01 | | 0.01 | 0.03 | 0.01 | 0.0099 | 0.02 | | 0.0199 |
| Sulfate | <DL | 5.1 | 8 | 8 | | 14.0 | 18.0 | ND | 16.0 | 15.0 | 45 | 7.6 | 15 | 11 | 9 | 14 | 15 | 17 | 8.3 | 12 | | 40 | 16 | 13 | 8.5 | 25 | 10 | | 13 | 11 | 7.9 | 25 | 11 | | 14.7 |
| Total Organic Carbon (TOC) | 3.7 | 8 | 8.1 | 6 | | 9.0 | 7.0 | 16.0 | 6.0 | 11.4 | 5.2 | 7 | 8.5 | 11.5 | 3.6 | 4.8 | 8.8 | 4.1 | 4.4 | 6.6 | | 9.1 | 4.3 | 4.2 | 6.0 | 4.5 | 5.8 | | 5.7 | 9.5 | 4.6 | 4.5 | 5.1 | | 6.9 |
| Total Dissolved Solids (TDS) | 132 | 200 | 211 | 231 | | 165 | 200 | 195 | 129 | 172 | 189 | 230 | 178 | 224 | 128 | 148 | 262 | 179 | 171 | 220 | | 262 | 161 | 1700 | 150 | 185 | 179 | | 206 | 247 | 207 | 200 | 224 | | 240 |
| Total Hardness | 48.5 | 137 | 124 | 160 | | 110 | 133 | 164 | 111 | 144 | 142 | 168 | 186 | 198 | 164 | 123 | 261 | 109 | 112 | 154 | | 174 | 110 | 126 | 106 | 124 | 139 | | 154 | 190 | 150 | 163 | 146 | | 195 |
| Total Kjeldahl Nitrogen (TKN) | 1.8 | | | | | | | | 2.14 | | | | 4.17 | | | | 5.91 | | | | | | | 2.89 | | 2.54 | | | | 3.83 | | 5.31 | | | |
| Turbidity (NTU units) | 5 | 122 | 40.2 | 120 | | 15.5 | 5.0 | 345 | 8.9 | 3.1 | 320 | 18 | 21 | 30 | 5.1 | 7.5 | 170 | 7 | 11 | 14 | | 18 | 7 | 27 | 21 | 11 | 16 | | 26 | 2.6 | 5.4 | 35 | 7 | | 23 |
| Cyanide | <DL | | | | | | | | ND | | | | ND | | | | ND | | | | | | | ND | | ND | | | | ND | | ND | | | |

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| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | ND | 1.7 | 2.8 | 3.4 | 4.8 | 2 | 3.9 | 2.6 | ND | 2.9 | 1.1 | ND | ND | ND | ND | 1.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.4 | ND | 1.09 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Benzene | | 0.58 | 2 | 1.4 | 1.7 | 0.35 | 3.9 | 2 | 2.6 | 1.4 | 1.5 | 1.7 | 1.3 | 1.4 | 2.6 | 2 | 1.2 | 0.72 | 2.1 | ND | ND | 1.4 | ND | ND | 1.4 | 1.9 | ND | ND | ND | ND | ND | 2.2 | ND | 1.47 | 1.0 |
| Bromobenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromoform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| n-Butylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| sec-Butylbenzene | | ND | ND | ND | ND | ND | ND | ND | 0.21 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| tert-Butylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 60.0 |
| Carbon tetrachloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | | 0.58 | 1.9 | 1.6 | 1.8 | 0.43 | 4.6 | 2.5 | 3 | 1.6 | 1.5 | 2.6 | 1.9 | 1.9 | 3.4 | 2.2 | 1.6 | 1.0 | 3.2 | ND | ND | 2.2 | ND | ND | 2.2 | 3.0 | ND | ND | ND | ND | ND | 3.0 | ND | 1.29 | 5.0 |
| Chloroethane | | ND | ND | ND | 0.25 | ND | 0.68 | 0.39 | 0.46 | 0.26 | ND | 0.35 | 0.27 | 0.28 | 0.5 | 0.43 | 0.22 | ND | ND | ND | ND | 0.55 | ND | ND | 0.36 | 0.43 | ND | ND | ND | ND | ND | ND | ND | 0.15 | 5.0 |
| Chloroform | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.05 | 7.0 |
| Chloromethane | | ND | ND | ND | ND | ND | ND | ND | 0.22 | ND | ND | ND | ND | ND | ND | ND | 0.32 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |
| 2-Chlorotoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | | ND | ND | ND | ND | ND | 0.7 | ND | 0.23 | ND | ND | 0.32 | 0.26 | 0.28 | 0.33 | 0.21 | 0.22 | ND | ND | ND | ND | 0.24 | ND | ND | 0.22 | 0.25 | ND | ND | ND | ND | ND | ND | ND | 0.08 | 3.0 |
| 1,3-Dichlorobenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.01 | 3.0 |
| 1,4-Dichlorobenzene | | ND | ND | 0.9 | 1 | ND | 2 | 1.3 | 1.5 | 0.85 | 0.71 | 1.2 | 0.89 | 0.8 | 1.4 | 1 | 0.83 | 0.53 | 1.4 | ND | ND | 1 | ND | ND | 1.1 | 1.1 | ND | ND | ND | ND | ND | 1.3 | ND | 0.75 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | | ND | ND | ND | 1.1 | ND | 0.89 | 0.55 | ND | 0.38 | 0.53 | 0.4 | 0.67 | 0.37 | 0.7 | 0.48 | 0.65 | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | 7.2 | - | ND | - | 0.34 | 5.0 |
| 1,1-Dichloroethane | | 2.5 | 6.4 | 4.9 | 5.2 | 1.2 | 8.8 | 5.5 | 5.4 | 4.4 | 5.8 | 4.5 | 5 | 5.6 | 8.8 | 6.1 | 7.5 | 1.8 | 3.6 | 5.2 | 4.1 | 3.9 | ND | 5.4 | 3.6 | 4.7 | ND | ND | ND | ND | ND | 4.7 | ND | 4.99 | 5.0 |
| 1,2-Dichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.27 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 0.6 |
| 1,1-Dichloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.29 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.11 | 5.0 |
| cis-1,2-Dichloroethene | | 3.1 | 10.6 | 7.1 | 8.3 | 1.8 | 19 | 10 | 11 | 8.6 | 11 | 8.1 | 22 | 12 | 25 | 16 | 19 | 2.4 | 9.4 | 9.1 | 8.6 | 8.7 | 11 | 9 | 9.7 | 16 | ND | 15 | 21.5 | 6.3 | 11.7 | 10.3 | 9.6 | 10.32 | 5.0 |
| trans-1,2-Dichloroethene | | ND | 0.6 | ND | ND | ND | 0.79 | 0.4 | 0.43 | 0.39 | 0.44 | 0.34 | 0.91 | 0.64 | 0.81 | 0.55 | 0.47 | ND | ND | ND | ND | 0.41 | ND | ND | ND | 0.55 | ND | ND | ND | ND | ND | ND | ND | 0.24 | 5.0 |
| 1,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| Ethylbenzene | | ND | ND | ND | ND | ND | 0.9 | ND | 0.61 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.28 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | | ND | ND | ND | ND | ND | 0.61 | 0.38 | 0.61 | ND | ND | 0.26 | ND | ND | 0.4 | 0.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.09 | 5.0 |
| p-Isopropyltoluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.04 | 5.0 |
| Methylene chloride | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.52 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Naphthalene | | ND | ND | ND | ND | ND | 0.38 | ND | 0.39 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.04 | 10.0 |
| n-Propylbenzene | | ND | ND | ND | ND | ND | 0.33 | ND | 0.34 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.03 | 5.0 |
| Styrene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Toluene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.07 | 5.0 |
| 1,2,3-Trichlorobenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.01 | 5.0 |
| 1,1,1-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.23 | 5.0 |
| 1,1,2-Trichloroethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 1.0 |
| Trichloroethene | | ND | 3.6 | 1.2 | 5.5 | 0.51 | 8.7 | 2.5 | 2.9 | 1.3 | 0.38 | 0.99 | 2 | 8.5 | 6.3 | 1.9 | ND | 0.45 | 1 | ND | ND | ND | ND | ND | 1.1 | 5.3 | ND | ND | ND | ND | ND | 1.7 | ND | 3.21 | 5.0 |
| Trichlorofluoromethane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | 0.27 | ND | ND | ND | ND | ND | ND | ND | ND | 0.47 | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.03 | 5.0 |
| 1,3,5-Trimethylbenzene | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | |
| Vinyl chloride | | 0.68 | 4.3 | 3.5 | 3.3 | 0.69 | 6.2 | 3.7 | 3.6 | 2.3 | 3.9 | 2.4 | 4 | 3.7 | 5.2 | 3.3 | 4.6 | 0.96 | 2.5 | 3.6 | ND | 2.9 | ND | ND | 2.7 | 3.5 | ND | ND | ND | 1.9 | ND | 3.4 | ND | 3.38 | 2.0 |
| o-Xylene | | ND | ND | ND | ND | ND | ND | ND | 0.35 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.03 | 5.0 |
| p-Xylene & m-Xylene | | ND | ND | ND | ND | ND | ND | ND | 1.3 | ND | 0.21 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.14 | 5.0 |

SEEP
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | ND | | ND | | ND | | 0.44 | | ND | ND | | ND | | | ND | 0.32 | | | 0.19 | ND | - | - | ND | ND | - | ND | ND | 0.101 | 0.056 | - | 0.0779 | 0.07 | |
| Calcium | | 21.9 | 41.2 | 33.3 | 35.4 | 14.8 | 68 | 45.4 | 46.8 | 38.6 | 48.9 | 41.8 | 46.8 | 55 | 53.9 | 51.9 | 53.6 | 22.3 | 47.7 | 48 | 49 | 39 | 46.8 | 47 | 49.8 | 50.3 | 28.5 | 54.5 | 54.4 | 47.3 | 48.8 | 57.5 | 52.4 | 40.38 | |
| Iron | | 79.6 | 10.8 | 7.87 | 12.1 | 3.1 | 17.1 | 14.1 | 47.1 | 9.4 | 1.8 | 11.4 | 8.7 | 14 | 24.3 | 15.7 | 18.2 | 6.2 | 10.6 | 15 | 25 | 12.1 | 7.69 | 14.1 | 13.8 | 20.7 | 0.14 | 15.7 | 10.1 | 13.4 | 9.27 | 15.9 | 14.3 | 17.12 | 0.3 |
| Magnesium | | 6.67 | 11.8 | 9.8 | 10.6 | 4.1 | 23.1 | 13.5 | 14.2 | 12.4 | 16.2 | 13.2 | 15.4 | 18.9 | 17.5 | 17 | 18 | 6.6 | 15.9 | 16 | 17 | 13.8 | 17.1 | 16.4 | 15.4 | 17 | 8.6 | 16.8 | 17.5 | 13.9 | 14.7 | 17.8 | 16.6 | 12.87 | 35.0 |
| Manganese | | 4.28 | 7.93 | 6.03 | 7.4 | 2 | 12.6 | 8.5 | 9.7 | 7.6 | 7.2 | 8.7 | 8.4 | 10.7 | 11.5 | 10.8 | 8.7 | 3.6 | 9.5 | 10 | 8.7 | 8.59 | 8.93 | 10.3 | 9.3 | 10.5 | 0.125 | 11 | 9.12 | 10.9 | 9.25 | 9.69 | 10.6 | 8.25 | 0.3 |
| Potassium | | 2.65 | 3.34 | 2.53 | 3.4 | 2 | 4.7 | 3.5 | 3.8 | 3 | 3.5 | 3.1 | 3.2 | 3.6 | 3.46 | 3.29 | 3.19 | 2.3 | 3.6 | 2.9 | 2.6 | 2.8 | 3.1 | 3.2 | 2.8 | 3.3 | ND | ND | ND | 5 | 4.39 | 3.77 | 4.24 | 3.06 | |
| Sodium | | 3.89 | 5.93 | 4.99 | 5 | 2 | 10.5 | 6.2 | 6.4 | 5.4 | 7.2 | 6 | 6.8 | 8 | 6.6 | 5.8 | 7 | 2.8 | 7.1 | 5.5 | ND | 5.3 | 6.5 | 5 | 5.6 | 6.3 | 1.5 | 6.19 | ND | 6.59 | 6.04 | 6.16 | 6.64 | 6.27 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.003 |
| Arsenic | | | ND | | 0.02 | | 0.01 | | 0.06 | | ND | 0.012 | | 0.017 | | | 0.022 | ND | | | ND | 0.015 | - | - | 0.021 | 0.039 | - | 0.0177 | 0.0188 | 0.0164 | 0.02 | - | 0.0288 | 0.01 | 0.025 |
| Barium | | | 0.16 | | 0.13 | | 0.25 | | 0.2 | | 0.18 | 0.15 | | 0.2 | | | 0.19 | 0.075 | | | ND | 0.157 | - | - | 0.185 | 0.21 | - | ND | ND | 0.15 | 0.182 | - | 0.177 | 0.11 | 1.0 |
| Beryllium | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.0003 | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | |
| Cadmium | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.005 |
| Chromium (Total) | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.001 | - | - | 0.001 | 0.002 | - | ND | ND | 0.0066 | 0.0036 | - | 0.0107 | 0.00 | 0.05 |
| Copper | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.2 |
| Lead | | 0.005 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.002 | ND | ND | ND | ND | ND | ND | ND | 0.0015 | ND | 0.0024 | ND | 0.00 | 0.025 |
| Mercury | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 0.0033 | - | ND | 0.00 | 0.0007 |
| Nickel | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.004 | - | - | 0.004 | 0.004 | - | ND | ND | 0.0059 | 6E-05 | - | 0.0031 | 0.01 | 0.1 |
| Selenium | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.006 | - | - | 0.005 | 0.008 | - | ND | ND | ND | ND | - | ND | 0.00 | 0.01 |
| Silver | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | 0.002 | 0.004 | - | ND | ND | ND | ND | - | ND | 0.00 | 0.05 |
| Thallium | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | 0.0141 | ND | ND | 0.0042 | - | ND | 0.00 | 0.0005 |
| Zinc | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 0.0028 | - | ND | 0.00 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | 85.7 | 180 | 150 | 132 | 46 | 261 | 178 | 174 | 172 | 232 | 128 | 245 | 245 | 181 | 207 | 218 | 144 | 228 | 210 | 210 | ND | 225 | 223 | 227 | 225 | 92.7 | 236 | 223 | 217 | 231 | 201 | 231 | 175.3 | |
| Biochemical Oxygen Demand | | | 4 | | 4.4 | | 2.8 | | ND | | 3.4 | 3.2 | | 4.6 | | | ND | ND | | 7 | ND | 6.8 | - | - | 7.9 | 5.1 | ND | ND | ND | 6.1 | 15.1 | 3.5 | ND | 2.2 | |
| Boron | | | 0.06 | | 0.07 | | 0.11 | | 0.08 | | 0.07 | 0.067 | | 0.072 | | | 0.059 | 0.044 | | | ND | 0.07 | - | - | 0.05 | 0.07 | - | ND | ND | 0.0687 | 0.0811 | - | 0.0852 | 0.0 | 1.0 |
| Chemical Oxygen Demand | | 11.5 | 9 | ND | 17.1 | 11.4 | 16.2 | 23.3 | 23.4 | ND | ND | 13.8 | 10 | ND | 16.9 | ND | 15.8 | ND | 16.8 | ND | 62 | 24.4 | 11.2 | 6.7 | ND | 17.3 | 7.5 | - | 35.9 | 46.3 | 33 | 58.4 | 44.1 | 14.7 | |
| Chromium (Hexavalent) | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | 0.0099 | - | - | ND | 0.0 | 0.05 |
| Chloride | | 3.26 | 7.9 | 5 | 4.8 | 1.5 | 15.9 | 6.5 | 8.8 | 5.6 | 8.9 | 4.8 | 7.4 | 8.1 | 7.02 | 6.4 | 7.28 | 4 | 6.6 | 6.41 | 5.59 | 4.6 | 6 | 4.9 | 3.8 | 6.3 | ND | 4.81 | 6.1 | 7.9 | 4.8 | 6.1 | 4.7 | 8.4 | 250.0 |
| Color (PCU units) | | | 10 | | 10 | | 100 | | 80 | | 50 | 50 | | 25 | | | 30 | 80 | | | 5 | 110 | - | - | 34 | 38 | - | 5 | 10 | 10 | - | - | 125 | 51.1 | 15.0 |
| Nitrate-Nitrite | | 0.21 | ND | 0.09 | ND | 0.19 | ND | ND | ND | 0.08 | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.11 | ND | ND | ND | 0.2 | 10.0 |
| Nitrogen-Ammonia | | 1.47 | 2.8 | 2.3 | 1.4 | 0.76 | 3.4 | 1.9 | 1.6 | 2.1 | 1.9 | 2.4 | 2.3 | 2.71 | 2.68 | 1.96 | 1.9 | 0.92 | 3.5 | 2.84 | 1.98 | 2.61 | 2.68 | 2.32 | 2.65 | 2.98 | ND | 3.16 | 2.4 | 2.7 | 3.3 | 3.1 | 3.0 | 2.4 | 2.0 |
| Phenols | | 0.0052 | 0.002 | ND | ND | 0.02 | ND | ND | 0.01 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0134 | 0.0089 | ND | ND | 0.0128 | 0.0094 | 0.0151 | 0.0172 | 0.0172 | 0.0079 | 0.0 | 0.001 |
| Sulfate | | 7.44 | 7.9 | 8.5 | 9.2 | 5.9 | 7 | 7.2 | 6.3 | 7.7 | 10.9 | 5.2 | 8 | 7.5 | 7.25 | 7.66 | 8.08 | 4.8 | 6.3 | ND | ND | 5.8 | 7 | 5.2 | 5.8 | 5.5 | 22.6 | 5.44 | 8.3 | 3.9 | 5.2 | 3.7 | 5.6 | 10.3 | 250.0 |
| Total Organic Carbon (TOC) | | 2.8 | 6.9 | 3 | 3 | 2.6 | 8 | 3.9 | 6.2 | 4.2 | 3.9 | 4.6 | 4.9 | 5.2 | 3.6 | 2.9 | 4.1 | 4.8 | 4.5 | ND | 3.9 | 4.4 | 4.7 | 5 | 4.5 | 6.3 | 2.1 | 3.95 | 7.9 | 6.3 | 5.9 | 18.5 | 5.4 | 5.8 | |
| Total Dissolved Solids (TDS) | | 126 | 208 | 180 | 194 | 67 | 331 | 208 | 129 | 191 | 215 | 195 | 235 | 271 | 246 | 256 | 257 | 94 | 211 | 230 | 290 | 220 | 227 | 250 | 236 | 232 | 128 | 263 | 238 | 213 | 237 | 262 | 217 | 228.3 | 500.0 |
| Total Hardness | | 82.2 | 151 | 123 | 132 | 53.8 | 265 | 169 | 175 | 147 | 189 | 159 | 180 | 220 | 210 | 200 | 210 | 82.9 | 184 | 190 | 190 | 154 | 187 | 185 | 188 | 196 | 107 | 220 | 240 | 180 | 250 | 250 | 200 | 161.8 | |
| Total Kjeldahl Nitrogen (TKN) | | | 3.6 | | 2.8 | | 4.2 | | 2 | | 3.3 | 2.8 | | 3.11 | | | 2.57 | 1.4 | | 2.52 | 2.9 | 3.04 | - | - | 2.78 | 3.23 | - | 3.02 | 2.2 | 3.3 | 3.9 | 3.9 | 2.9 | 2.4 | |
| Turbidity (NTU units) | | 4.7 | 15 | 10 | 25.9 | 7.6 | 21 | 26.3 | 156 | 9.7 | 8.2 | 3.6 | 4.5 | 10 | 31 | 3 | 1 | 4 | 5.7 | 0.1 | 26.5 | 0.9 | 14 | 0 | 4.2 | 19.2 | 2.2 | 1.9 | 8.9 | 3.5 | 28.5 | 15.3 | 17.7 | 31.1 | 5.0 |
| Cyanide | | | ND | | ND | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.

* = Applies to the sum of cis and trans-1,3-dichloropropene.

** = Guidance Value.

ND values are included in calculation of Mean and are considered equal to zero.

(Blank) or "-" = Not Analyzed.

ND = Not Detected.

<DL = Detected below method detection limit.

J = Estimated.

B = Analyte was detected in method blank.

STREAM
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | <DL | ND | <DL | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Bromobenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Bromochloromethane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Bromodichloromethane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | ND | ND | ND | | | ND | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| sec-Butylbenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| tert-Butylbenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Chlorobenzene | ND | ND | <DL | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Chloroethane | ND | ND | <DL | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Chloroform | ND | ND | <DL | | | ND | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2-Chlorotoluene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 4-Chlorotoluene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Dibromochloromethane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | | | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | ND | ND | | | ND | ND | | ND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2-Dichlorobenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,3-Dichlorobenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,4-Dichlorobenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1-Dichloroethane | ND | 0.45 | 0.54 | | | ND | ND | | ND | | 1.0 | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2-Dichloroethane | ND | ND | <DL | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1-Dichloroethene | ND | ND | <DL | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| cis-1,2-Dichloroethene | ND | 0.68 | 1.63 | | | ND | ND | | ND | | 1.0 | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| trans-1,2-Dichloroethene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2-Dichloropropane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,3-Dichloropropane | ND | ND | 0.10 | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2,2-Dichloropropane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1-Dichloropropene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| cis-1-3-Dichloropropene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Ethylbenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| p-Isopropyltoluene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Methylene chloride | 3.62 | ND | <DL | | | 1.0 | 3.0 | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | ND | ND | <DL | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| n-Propylbenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Styrene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Tetrachloroethene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Toluene | ND | ND | <DL | | | ND | ND | | ND | | 1.0 | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,3-Trichlorobenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,4-Trichlorobenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,1-Trichloroethane | ND | ND | <DL | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,1,2-Trichloroethane | ND | ND | <DL | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Trichloroethene | <DL | ND | 0.73 | | | ND | ND | | ND | | 0.8 | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Trichlorofluoromethane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,3-Trichloropropane | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,2,4-Trimethylbenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| 1,3,5-Trimethylbenzene | ND | ND | ND | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | ND | ND | <DL | | | ND | ND | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| o-Xylene | | | ND | | | | | | ND | | ND | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| p-Xylene & m-Xylene | | | ND | | | | | | ND | | 0.6 | | | | ND | | | | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |

STREAM
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | ND | | | | | | | | 31.1 | | | | | | | | | | | | | | | | | 0.15 | | | | 0.12 | | ND | | | |
| Calcium | 6.1 | 13.4 | 21.7 | | | 14.4 | 13.5 | | 28.8 | 14.2 | ND | | | 19.9 | 9.94 | 26.6 | | 20 | 18.3 | | | | 16.3 | | 14.6 | 13.6 | 21.5 | | 13.4 | 25.1 | 17.4 | 33.4 | 22.3 | | 17.3 |
| Iron | 0.06 | **0.8** | **2.4** | | | 0.07 | ND | | **51** | **0.54** | **71** | | | 0.03 | 0.2 | **0.79** | | **2.03** | 0.15 | | | | 0.05 | | 0.19 | **0.44** | **0.32** | | 0.29 | **0.65** | 0.14 | **0.67** | **0.89** | | 0.15 |
| Magnesium | 2 | 2.7 | 6.8 | | | 3.7 | 3.9 | | 11.6 | 3.79 | **132** | | | 5.8 | 2.64 | 7.07 | | 5.83 | 5.04 | | | | 4.26 | | 3.98 | 3.02 | 6.02 | | 3.43 | 6.52 | 4.65 | 9.26 | 6.8 | | 4.78 |
| Manganese | 0.26 | **0.33** | **2** | | | ND | 0.01 | | **23.2** | **0.72** | **31.5** | | | **0.35** | 0.06 | 0.25 | | **0.94** | 0.28 | | | | 0.01 | | 0.05 | 0.06 | **0.83** | | 0.1 | **1.11** | 0.08 | **0.95** | **0.59** | | 0.02 |
| Potassium | 1.1 | 0.9 | 1.7 | | | 1.6 | 1.5 | | 5.45 | 1.71 | 5.86 | | | 1.59 | 1.26 | 1.43 | | 1.85 | 1.47 | | | | 1.47 | | 1.26 | 1.71 | 1.71 | | 1.41 | 1.86 | 1.5 | 2.21 | 1.64 | | 1.26 |
| Sodium | ND | 1.5 | 5.4 | | | 2.9 | 2.6 | | 5.5 | 1.94 | 4.83 | | | 2.62 | 1.14 | 4.04 | | 3.6 | 2.78 | | | | 2.15 | | 1.93 | 0.97 | 2.95 | | 1.31 | 2.98 | 1.99 | 5.2 | 3.37 | | 2.39 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | ND | | | | | | | | **0.03** | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Arsenic | <DL | | | | | | | | 0.024 | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Barium | ND | | | | | | | | 0.37 | | | | | | | | | | | | | | | | | ND | | | | 0.03 | | 0.04 | | | |
| Beryllium | ND | | | | | | | | 0 | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Cadmium | ND | ND | ND | | | ND | ND | | ND | ND | ND | | | ND | ND | ND | | ND | ND | | | | ND | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND |
| Chromium (Total) | ND | | | | | | | | 0.04 | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Copper | ND | | | | | | | | ND | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Lead | ND | <DL | <DL | | | ND | **0.040** | | 0.018 | ND | 0.007 | | | 0.002 | ND | 0.002 | | 0.006 | ND | | | | ND | | 0.002 | ND | ND | | ND | 0 | ND | 0.01 | 0 | | ND |
| Mercury | ND | | | | | | | | ND | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Nickel | **0.15** | | | | | | | | 0.097 | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Selenium | ND | ND | | | | ND | | | ND | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Silver | ND | | | | | | | | ND | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Thallium | <DL | | | | | | | | ND | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Zinc | ND | | | | | | | | 0.13 | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | 64 | 57 | 85 | | | 28 | 38 | | 106 | 44.3 | 97.6 | | | 55 | 30.2 | 96.3 | | 63.6 | 63.9 | | | | 39.8 | | 44.9 | 31.9 | 93 | | 24.6 | 157 | 50.7 | 117 | 70 | | 49.3 |
| Biochemical Oxygen Demand | 4 | | | | | | | | ND | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Boron | ND | | | | | | | | 0.07 | | | | | | | | | | | | | | | | | ND | | | | 0.06 | | 0.09 | | | |
| Chemical Oxygen Demand | 10.1 | 11 | 11.4 | | | ND | ND | | 46 | ND | 8.7 | | | ND | ND | ND | | ND | ND | | | | ND | | ND | 34.6 | ND | | 10.6 | ND | ND | 10.7 | ND | | ND |
| Chromium (Hexavalent) | ND | | | | | | | | ND | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |
| Chloride | ND | | | | | | | | ND | | | | | | | | | 4.44 | 3.78 | | | | ND | | 1.97 | ND | 3.76 | | 2.44 | 5.85 | 2.06 | 10.3 | 4.02 | | 2.74 |
| Color (PCU units) | **19** | | | | | | | | **50** | | | | | | | | | | | | | | | | | **100** | | | | **20** | | **45** | | | |
| Nitrate-Nitrite | 0.3 | <DL | <DL | | | ND | 0.19 | | 1.8 | 0.13 | 0.72 | | | 0.52 | 0.13 | 0.1 | | 2.28 | 0.31 | | | | 0.500 | | 0.442 | ND | 0.41 | | 1.86 | ND | 0.25 | 0.86 | 0.58 | | 0.34 |
| Nitrogen-Ammonia | <DL | <DL | <DL | | | 0.2 | 0.1 | | 0.04 | 0.54 | 1.02 | | | 0.54 | 0.15 | 0.53 | | 0.32 | 0.32 | | | | 0.06 | | 0.1 | 0.03 | 0.51 | | ND | 0.13 | 0.12 | ND | 0.3 | | 0.29 |
| Phenols | **0.001** | ND | <DL | | | ND | ND | | ND | ND | ND | | | ND | **0.007** | **0.006** | | ND | ND | | | | ND | | **0.005** | **0.02** | ND | | ND | ND | ND | ND | ND | | ND |
| Sulfate | 22.1 | 5.2 | 16.2 | | | 40 | 15.0 | | 13 | 15 | 23 | | | 19 | 8 | 13 | | 68 | 7.1 | | | | 13 | | 14 | 16 | 8.1 | | 21 | 30 | 18 | 23 | 13 | | 14.8 |
| Total Organic Carbon (TOC) | 5.6 | 5 | 4 | | | 3 | 2.0 | | 8.9 | 5.1 | 4.6 | | | 4 | 3.8 | 5.2 | | 3.4 | 3.0 | | | | 3.9 | | 2.9 | 2.4 | 3.6 | | 3.8 | 4.3 | 2.9 | 4.9 | 3 | | 3.2 |
| Total Dissolved Solids (TDS) | 110 | 254 | 144 | | | 110 | 89.0 | | 76 | 48 | 128 | | | 123 | 24 | 126 | | 140 | 82 | | | | 86 | | 58 | 100 | 110 | | 81 | 103 | 87 | 151 | 118 | | 96 |
| Total Hardness | 23 | 44.6 | 82 | | | 51 | 51.0 | | 101 | 55 | 127 | | | 116 | 64 | 112 | | 73.9 | 66.4 | | | | 58.2 | | 52.8 | 46.4 | 78.5 | | 47.6 | 89.5 | 62.6 | 122 | 83.7 | | 62.9 |
| Total Kjeldahl Nitrogen (TKN) | 0.4 | | | | | | | | 1.5 | | | | | | | | | | | | | | | | | 1.55 | | | | ND | | 3.42 | | | |
| Turbidity (NTU units) | <DL | **18** | **9** | | | 0.4 | 1.0 | | **340** | **7.9** | **175** | | | **5** | 2.6 | 0.52 | | **12** | 2.8 | | | | 1 | | 0.56 | 3.4 | 4.3 | | **5.5** | 0.59 | 0.81 | 2.7 | 2.3 | | 0.38 |
| Cyanide | 0.013 | | | | | | | | ND | | | | | | | | | | | | | | | | | ND | | | | ND | | ND | | | |

STREAM
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 09/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | ND | ND | ND | 3.1 | 4.9 | 2.0 | ND | ND | ND | 1.6 | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.0 | ND | 0.52 | 50 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5 |
| Benzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| Bromobenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Bromochloromethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Bromodichloromethane | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromoform | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Bromomethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | 0.34 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| n-Butylbenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| sec-Butylbenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| tert-Butylbenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | 0.33 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 60.0 |
| Carbon tetrachloride | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chlorobenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chloroethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Chloroform | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 7.0 |
| Chloromethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Chlorotoluene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 4-Chlorotoluene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Dibromochloromethane | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2-Dibromoethane | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dibromomethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichlorobenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 3.0 |
| 1,3-Dichlorobenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 3.0 |
| 1,4-Dichlorobenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Dichlorodifluoromethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloroethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.04 | 5.0 |
| 1,2-Dichloroethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.6 |
| 1,1-Dichloroethene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| cis-1,2-Dichloroethene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.07 | 5.0 |
| trans-1,2-Dichloroethene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2-Dichloropropane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| 1,3-Dichloropropane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 2,2-Dichloropropane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| 1,1-Dichloropropene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0.00 | 5.0 |
| cis-1-3-Dichloropropene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| trans-1,3-Dichloropropene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.4 |
| Ethylbenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 50.0 |
| Hexachlorobutadiene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Isopropylbenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| p-Isopropyltoluene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Methylene chloride | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.16 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 10 |
| Naphthalene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 10 |
| n-Propylbenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Styrene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,1,2-Tetrachloroethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2,2-Tetrachloroethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Tetrachloroethene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| Toluene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.02 | 5.0 |
| 1,2,3-Trichlorobenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,2,4-Trichlorobenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,1,1-Trichloroethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,1,2-Trichloroethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 1.0 |
| Trichloroethene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.03 | 5.0 |
| Trichlorofluoromethane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| 1,2,3-Trichloropropane | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.04 |
| 1,2,4-Trimethylbenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| 1,3,5-Trimethylbenzene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.00 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.00 |
| Vinyl chloride | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 2.0 |
| o-Xylene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 5.0 |
| p-Xylene & m-Xylene | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | 5.0 |

STREAM
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 09/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | | | ND | | ND | | 2.3 | | 1 | 0.48 | | 0.439 | | | | 1.3 | | | 0.31 | 1.64 | - | - | 0.15 | 0.15 | - | 0.398 | ND | 0.533 | 0.233 | - | 0.139 | 1.35 | |
| Calcium | | 8.01 | | 21.2 | 29.6 | 7.5 | 29.9 | 22.8 | 25.2 | 17.1 | 21.2 | 18 | 34.5 | 40.4 | 43.1 | 35.9 | | 10.7 | 22.1 | 36 | 42 | 34 | 29.4 | 33 | 24.2 | 25.8 | 27.9 | 41.3 | 33.7 | 19.3 | 32.4 | 33.8 | 28.6 | 23.21 | |
| Iron | | **0.46** | | **0.74** | 0.05 | **0.66** | 0.06 | 0.18 | **2.5** | **1.2** | **1** | **0.42** | 0.06 | **0.405** | **0.407** | **0.787** | | **1** | 0.22 | **0.52** | **0.47** | **1.74** | 0.24 | 0.18 | 0.28 | **0.47** | ND | **0.524** | ND | **0.963** | **0.319** | **0.655** | 0.224 | 2.82 | 0.3 |
| Magnesium | | 2.12 | | 5.68 | 8 | 1.8 | 8.6 | 6.2 | 7.5 | 4.7 | 5.7 | 5.2 | 10.3 | 12 | 13.1 | 11.4 | | 2.7 | 6.6 | 12 | 12 | 11.1 | 9.7 | 11.1 | 6.9 | 7.5 | 8.8 | 10.3 | 9.52 | 5.46 | 9.45 | 9.63 | 7.74 | 9.21 | 35 |
| Manganese | | 0.04 | | **0.45** | **0.33** | 0.13 | 0.08 | 0.05 | **0.54** | **0.34** | 0.15 | 0.06 | 0.03 | 0.116 | 0.222 | **0.506** | | 0.1 | 0.075 | 0.27 | 0.13 | **0.497** | 0.111 | 0.101 | 0.108 | 0.192 | 0.012 | **0.554** | ND | 0.198 | 0.082 | **0.378** | 0.242 | 1.32 | 0.3 |
| Potassium | | 1.86 | | 1.51 | 2.4 | 1.4 | 2 | 1.7 | 2.2 | 1.4 | 2.1 | 1.6 | 1.8 | 2.55 | 2.38 | 2.58 | | 1.4 | 1.6 | 2 | 1.7 | 2.2 | ND | ND | 1.5 | 1.8 | ND | ND | ND | 1.9 | 2.47 | 2.95 | 2.45 | 1.75 | |
| Sodium | | 1.36 | | 2.01 | 3.4 | ND | 5.2 | 2.5 | 3 | 1.6 | 2.3 | 1.8 | 5 | 6 | 5 | 4.3 | | ND | 1.9 | 4.6 | ND | 4.2 | 3.2 | 3.2 | 1.6 | 1.7 | 3 | ND | ND | 3.18 | 3.52 | 3.61 | 2.29 | 2.71 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.003 |
| Arsenic | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.025 |
| Barium | | | | | ND | | 0.02 | | 0.02 | | 0.019 | 0.01 | | 0.027 | | | | 0.012 | | | ND | 0.027 | - | - | 0.01 | 0.011 | - | ND | ND | 0.011 | 0.015 | - | 0.01 | 0.02 | 1.0 |
| Beryllium | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | 4E-04 | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | |
| Cadmium | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.005 |
| Chromium (Total) | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | 0.001 | - | - | ND | ND | - | ND | ND | ND | ND | - | 0.0031 | 0.00 | 0.05 |
| Copper | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | 0.0046 | 0.00 | 0.2 |
| Lead | | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | 0.001 | ND | 0.002 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.00 | 0.025 |
| Mercury | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 7E-05 | - | ND | 0.00 | 0.0007 |
| Nickel | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | 0.001 | ND | - | 0.0013 | 0.01 | 0.1 |
| Selenium | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | ND | - | - | ND | 0.003 | - | ND | ND | ND | ND | - | ND | 0.00 | 0.01 |
| Silver | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.05 |
| Thallium | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0.00 | 0.0005 |
| Zinc | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | 0.005 | - | - | ND | ND | - | ND | ND | 0.001 | 0.003 | - | ND | 0.00 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | 21.2 | | 65 | 111 | 12.2 | 85.1 | 69.2 | 55.1 | 48.3 | 67.8 | 59 | 132 | 160 | 172 | 145 | | 40.7 | 71.5 | 130 | 150 | 144 | 114 | 141 | 86.8 | 90.9 | 100 | 136 | 96 | 60.2 | 134 | 98.6 | 103 | 83.1 | |
| Biochemical Oxygen Demand | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | ND | 6 | ND | - | - | ND | ND | ND | ND | ND | 1.2 | 1 | 7.7 | ND | 0.6 | |
| Boron | | | | | ND | | 0.06 | | ND | | 0.035 | ND | | 0.069 | | | | ND | | | ND | 0.07 | - | - | ND | 0.04 | - | ND | ND | 0.018 | 0.041 | - | 0.0288 | 0.0 | 1.0 |
| Chemical Oxygen Demand | | ND | | 9 | ND | ND | ND | ND | ND | 15.4 | ND | ND | ND | ND | ND | 12.6 | | 14.6 | 16.5 | ND | ND | 9.5 | 8.1 | 14.3 | 9 | 28.6 | 11.3 | - | ND | 23.4 | 14 | 21.6 | 0.0441 | 6.6 | |
| Chromium (Hexavalent) | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | | ND | ND | - | - | ND | ND | - | - | ND | 0.007 | - | - | ND | 0.0 | 0.05 |
| Chloride | | ND | | 1.9 | 3.2 | ND | 10.7 | 2.3 | 3.3 | 1.1 | 2 | 1.5 | 7.6 | 4.7 | 6.24 | 4.38 | | ND | 1.3 | 2.61 | 4.26 | 2.8 | 3.8 | 2.5 | ND | ND | 2.9 | 2.47 | ND | 2.7 | 3.3 | 2.9 | 1.3 | 2.8 | 250 |
| Color (PCU units) | | | | | 5 | | 10 | | **25** | | **30** | **20** | | ND | | | | **80** | | | 5 | 12 | - | - | **34** | **105** | - | **15** | 10 | **15** | - | - | **30** | 20.3 | 15.0 |
| Nitrate-Nitrite | | 0.22 | | 0.58 | 0.17 | 0.21 | ND | 0.17 | 0.26 | | 0.23 | 0.24 | ND | 0.107 | | | | ND | ND | 0.228 | 0.098 | ND | ND | ND | ND | ND | ND | 0.23 | ND | 0.28 | 0.2 | 0.39 | ND | 0.3 | 10.0 |
| Nitrogen-Ammonia | | ND | | 0.1 | ND | 0.13 | ND | ND | ND | 0.13 | ND | 0.12 | ND | ND | ND | 0.28 | | ND | ND | ND | ND | ND | ND | ND | ND | 0.051 | ND | ND | ND | 0.1 | 0.084 | 0.028 | 0.058 | 0.1 | 2.0 |
| Phenols | | ND | | **0.002** | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | **0.007** | ND | **0.006** | **0.009** | **0.002** | **0.006** | **0.005** | **0.009** | 0.0 | 0.001 |
| Sulfate | | 6.41 | | 15 | 8.8 | 3.8 | 20 | 12.8 | 9.1 | 8.6 | 17.6 | 8.3 | 5.6 | 4.9 | 4.65 | 8.21 | | 4.5 | 10.1 | ND | ND | 5.2 | 11.6 | 7.4 | 7.5 | 5.5 | 10.1 | 6.65 | 41.2 | 5.9 | 8.7 | 7.0 | 6.9 | 13.3 | 250 |
| Total Organic Carbon (TOC) | | 2.3 | | 2.8 | 2.3 | 2.6 | 2.7 | 2.6 | 2.7 | 3.6 | 3.2 | 2.7 | 3.4 | 3.1 | 1.9 | 1.4 | | 6.1 | 2.4 | ND | 4 | 3.5 | 3.6 | 3 | 6.1 | 10.3 | 3 | 3.32 | 4 | ND | 4.9 | 15.5 | 7.5 | 3.9 | |
| Total Dissolved Solids (TDS) | | 62 | | 115 | 160 | 41 | 167 | 108 | 72 | 164 | 104 | 90 | 195 | 168 | 166 | 144 | | 43 | 80 | 160 | 170 | 154 | 134 | 152 | 112 | 120 | 128 | 150 | 148 | 98 | 148 | 143 | 113 | 118.0 | 500 |
| Total Hardness | | 28.7 | | 76 | ND | 26.1 | 110 | 82.4 | 93.8 | 62 | 76.4 | 66.3 | ND | 150 | 160 | 140 | | 37.7 | 82.2 | 140 | 150 | 131 | 114 | 128 | 88.7 | 95.3 | 106 | 104 | 140 | 60 | 116 | 120 | 80 | 83.7 | |
| Total Kjeldahl Nitrogen (TKN) | | | | | ND | | ND | | ND | | ND | ND | | ND | | | | ND | | ND | ND | ND | - | - | 0.49 | 0.86 | - | 0.17 | 0.18 | 0.48 | 0.15 | 0.21 | 0.31 | 0.3 | |
| Turbidity (NTU units) | | **8.8** | | **15** | 2 | **41.7** | 1.3 | **9.2** | **23** | **17.1** | **7.5** | 3 | 3.9 | **21** | 0 | **6** | | **9** | 4.3 | **10.2** | **6.9** | **38.4** | 1.7 | 0 | **7** | - | 0.76 | **17.2** | 2 | **13.6** | **46** | **40.3** | 1.3 | 18.0 | 5.0 |
| Cyanide | | | | | ND | | ND | | ND | | ND | ND | | 0.027 | | | | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0.0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.
* = Applies to the sum of cis and trans-1,3-dichloropropene.
** = Guidance Value.
ND values are included in calculation of Mean and are considered equal to zero.
(Blank) or "-" = Not Analyzed.
ND = Not Detected.
<DL = Detected below method detection limit.
J = Estimated.
B = Analyte was detected in method blank.

DUPLICATE
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Butanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Butylbenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| sec-Butylbenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trans-1,4-Dichloro-2-butene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cis-1-3-Dichloropropene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Hexanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iodomethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Propylbenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| p-Xylene & m-Xylene | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DUPLICATE
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/90 | 12/90 | 3/91 | 6/91 | 9/91 | 12/91 | 3/92 | 6/92 | 9/92 | 12/92 | 3/93 | 6/93 | 9/93 | 12/93 | 3/94 | 6/94 | 9/94 | 12/94 | 3/95 | 6/95 | 9/95 | 12/95 | 4/96 | 9/96 | 3/97 | 9/97 | 3/98 | 9/98 | 3/99 | 9/99 | 3/00 | 9/00 | 3/01 | 9/01 | 3/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Magnesium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chromium (Total) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thallium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Biochemical Oxygen Demand | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boron | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chemical Oxygen Demand | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chromium (Hexavalent) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color (PCU units) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate-Nitrite | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrogen-Ammonia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phenols | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (TDS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Hardness | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Kjeldahl Nitrogen (TKN) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Turbidity (NTU units) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyanide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DUPLICATE
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER VOLATILES (ug/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | | | | | | | 3.5 | ND | ND | 2.9 | 3.1 | 1.9 | 5.7 | ND | ND | ND | ND | ND | ND | ND | ND | 1.6 | ND | ND | 1.7 | ND | ND | ND | ND | ND | ND | ND | ND | 0.7556 | 50.0 |
| Acrylonitrile | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| Benzene | | | | | | | **13** | ND | ND | **1.4** | **1.5** | **11** | **10** | 0.59 | 0.7 | ND | **1.9** | **1.4** | 0.86 | ND | ND | **1.9** | ND | **7.5** | **7.2** | **1.3** | ND | ND | ND | ND | ND | **1.0** | ND | 2.2685 | 1.0 |
| Bromobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0 | 5.0 |
| Bromochloromethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| Bromodichloromethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 50.0 |
| Bromoform | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 50.0 |
| Bromomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| 2-Butanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 50.0 |
| n-Butylbenzene | | | | | | | ND | ND | ND | ND | ND | 0.48 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.0178 | 5.0 |
| sec-Butylbenzene | | | | | | | 0.47 | ND | ND | ND | ND | 0.68 | 0.35 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.0556 | 5.0 |
| tert-Butylbenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0 | 5.0 |
| Carbon disulfide | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.56 | ND | ND | ND | ND | ND | ND | ND | ND | 0.0207 | 60.0 |
| Carbon tetrachloride | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| Chlorobenzene | | | | | | | **13** | ND | ND | 1.6 | 1.4 | **15** | **12** | 0.37 | 0.44 | 0.52 | 2.2 | 1.7 | 0.54 | ND | 3.2 | 1.6 | ND | **8.6** | **9.7** | 0.87 | ND | ND | ND | ND | ND | 1.6 | ND | 2.7533 | 5.0 |
| Chloroethane | | | | | | | 2.2 | ND | ND | ND | ND | 1.6 | 1.4 | ND | 0.23 | 0.26 | 0.85 | 0.66 | ND | ND | ND | 0.69 | ND | ND | 0.92 | 0.65 | ND | ND | ND | ND | ND | ND | ND | 0.3504 | 5.0 |
| Chloroform | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 7.0 |
| Chloromethane | | | | | | | 0.3 | ND | ND | ND | ND | 0.27 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0211 | 5.0 |
| 2-Chlorotoluene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0 | 5.0 |
| 4-Chlorotoluene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0 | 5.0 |
| Dibromochloromethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.44 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0163 | 50.0 |
| 1,2-Dibromo-3-chloropropane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 0.04 |
| 1,2-Dibromoethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| Dibromomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| 1,2-Dichlorobenzene | | | | | | | 0.58 | ND | ND | ND | ND | 0.63 | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.43 | ND | ND | ND | ND | ND | ND | ND | ND | 0.0793 | 3.0 |
| 1,3-Dichlorobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0 | 3.0 |
| 1,4-Dichlorobenzene | | | | | | | **3.8** | ND | ND | 0.83 | 0.68 | **5** | **3.7** | ND | ND | ND | 0.98 | 0.72 | ND | ND | ND | 0.51 | ND | ND | **3.2** | 0.27 | ND | ND | ND | ND | ND | ND | ND | 0.7293 | 3.0 |
| trans-1,4-Dichloro-2-butene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| Dichlorodifluoromethane | | | | | | | 1.2 | ND | ND | 0.37 | 0.54 | ND | ND | ND | 0.35 | ND | 0.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | **7.6** | - | ND | - | 0.3948 | 5.0 |
| 1,1-Dichloroethane | | | | | | | **6** | ND | ND | 4.3 | **5.7** | 4.6 | **6.5** | **13** | **13** | **14** | 2.5 | 1.4 | **14** | ND | ND | **12** | ND | ND | 4.7 | **14** | ND | **7.9** | ND | **11.5** | ND | 1.4 | **11.4** | 5.4778 | 5.0 |
| 1,2-Dichloroethane | | | | | | | ND | ND | ND | ND | ND | ND | **0.94** | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0348 | 0.6 |
| 1,1-Dichloroethene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.22 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0081 | 5.0 |
| cis-1,2-Dichloroethene | | | | | | | 3.8 | ND | ND | **8.4** | **11** | 3.2 | 1.1 | **18** | **25** | **33** | **10** | 4.6 | **20** | ND | **8.3** | **41** | **11** | ND | ND | **54** | ND | **40** | **10.1** | **34.6** | ND | **5.0** | **45.5** | 14.356 | 5.0 |
| trans-1,2-Dichloroethene | | | | | | | 0.63 | ND | ND | 0.36 | 0.47 | 0.4 | 0.4 | ND | 0.37 | 0.49 | 0.43 | ND | ND | ND | ND | 0.95 | ND | ND | 0.37 | 1 | ND | ND | ND | ND | ND | ND | ND | 0.2174 | 5.0 |
| 1,2-Dichloropropane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 1.0 |
| 1,3-Dichloropropane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0 | 5.0 |
| 2,2-Dichloropropane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0 | 5.0 |
| 1,1-Dichloropropene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | - | 0 | 5.0 |
| cis-1-3-Dichloropropene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 0.4 |
| trans-1,3-Dichloropropene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 0.4 |
| Ethylbenzene | | | | | | | **10** | ND | ND | ND | ND | **16** | 2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.7 | ND | ND | ND | ND | ND | ND | ND | ND | 1.063 | 5.0 |
| 2-Hexanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 50.0 |
| Hexachlorobutadiene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0 | 0.5 |
| Iodomethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| Isopropylbenzene | | | | | | | 1.4 | ND | ND | ND | ND | 1.8 | 1.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.1593 | 5.0 |
| p-Isopropyltoluene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0 | 5.0 |
| Methylene chloride | | | | | | | 0.86 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0319 | 5.0 |
| 4-Methyl-2-pentanone | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | |
| Naphthalene | | | | | | | 3.5 | ND | ND | ND | ND | 5.3 | 3.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.4481 | 10.0 |
| n-Propylbenzene | | | | | | | 1.3 | ND | ND | ND | ND | 2 | 1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.1593 | 5.0 |
| Styrene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| 1,1,1,2-Tetrachloroethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| Tetrachloroethene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| Toluene | | | | | | | 1.1 | ND | ND | ND | ND | 1.1 | 0.45 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.42 | ND | ND | ND | ND | ND | ND | ND | ND | 0.1137 | 5.0 |
| 1,2,3-Trichlorobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,2,4-Trichlorobenzene | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0 | 5.0 |
| 1,1,1-Trichloroethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0852 | 5.0 |
| 1,1,2-Trichloroethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 1.0 |
| Trichloroethene | | | | | | | 0.74 | ND | ND | 1.3 | 0.37 | 0.65 | 0.31 | 1.7 | 1.8 | ND | 2 | 1.1 | 2.1 | ND | ND | 2.8 | ND | ND | 0.32 | **5.8** | ND | ND | ND | ND | ND | 1.1 | ND | 0.8181 | 5.0 |
| Trichlorofluoromethane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 5.0 |
| 1,2,3-Trichloropropane | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 0.04 |
| 1,2,4-Trimethylbenzene | | | | | | | **5.4** | ND | ND | ND | ND | 4.1 | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.3963 | 5.0 |
| 1,3,5-Trimethylbenzene | | | | | | | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | - | - | 0.0444 | 5.0 |
| Vinyl acetate | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | |
| Vinyl chloride | | | | | | | **3.2** | ND | ND | **2.2** | **3.7** | **4.6** | 1.3 | **2.6** | **4.4** | **4.8** | **7.2** | **2.6** | **3.5** | ND | **5.6** | **9.5** | **5.4** | ND | 1.2 | **6.9** | ND | ND | ND | **4.9** | ND | **2.2** | **5** | 2.9926 | 2.0 |
| o-Xylene | | | | | | | 1.3 | ND | ND | ND | ND | 2.1 | 0.53 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.4 | ND | ND | ND | ND | ND | ND | ND | ND | 0.1604 | 5.0 |
| p-Xylene & m-Xylene | | | | | | | **9.3** | ND | ND | ND | 0.21 | **6.1** | 2.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3.4 | ND | ND | ND | ND | ND | ND | ND | ND | 0.7819 | 5.0 |

DUPLICATE
HISTORICAL ANALYTICAL RESULTS
ISCHUA LANDFILL
OLEAN, NEW YORK

| | 9/02 | 3/03 | 9/03 | 3/04 | 9/04 | 3/05 | 9/05 | 3/06 | 11/06 | 4/07 | 10/07 | 4/08 | 10/08 | 4/09 | 9/09 | 4/10 | 9/10 | 5/11 | 10/11 | 5/12 | 10/12 | 6/13 | 10/13 | 6/14 | 10/14 | 6/15 | 11/15 | 5/16 | 10/16 | 3/17 | 10/17 | 5/18 | 9/18 | MEAN | NYS STD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PARAMETER METALS (mg/L)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.008 | 0 | - | ND | ND | - | ND | ND | ND | 0.147 | - | 0.1 | 0.0128 | |
| Calcium | | | | | | | 122 | 22.4 | 55.2 | 39 | 49.3 | 112 | 128 | 65 | 68.7 | 66.6 | 89.5 | 80.3 | 73.4 | 34 | 86 | 67.2 | 80 | 122 | 118 | 74.2 | 28.1 | 70.8 | 94.3 | 71.7 | 32.9 | 75.7 | 81.9 | 74.378 | |
| Iron | | | | | | | **15.9** | **0.53** | 0.096 | **9.6** | **2.3** | **22.7** | **32.1** | 0.241 | 0.202 | **0.383** | **5.31** | **5.8** | **0.65** | **0.88** | **6** | **1.79** | **5.7** | **10.3** | **15.1** | **1.29** | ND | **0.311** | **3.04** | 0.066 | 0.204 | **3.44** | **0.858** | 5.3626 | 0.3 |
| Magnesium | | | | | | | 23.4 | 5.9 | 17.1 | 12.5 | 16.4 | 22.8 | 26.2 | 20.4 | 21.6 | 21.2 | 13.2 | 12 | 23.7 | 11 | 13 | 23.2 | 12.7 | 24.1 | 25.5 | 23.7 | 8.8 | 20.2 | 13.8 | 22.3 | 9.62 | 11 | 25.7 | 17.816 | 35.0 |
| Manganese | | | | | | | **12.8** | 0.065 | 0.14 | **7.6** | **7.3** | **12.6** | **13.2** | **4.82** | **2.27** | **3.03** | **8.24** | **7.2** | **7** | **0.35** | **9.2** | **9.08** | **8.08** | **11.2** | **9.62** | **7.32** | 0.014 | **3.69** | **7.2** | **2.04** | 0.0492 | **5.33** | **6.42** | 6.1429 | 0.3 |
| Potassium | | | | | | | 7.7 | 1.8 | 2.3 | 3.1 | 3.6 | 6.7 | 8 | 1.83 | 2.04 | 2.08 | 2.9 | 2.2 | 2.3 | 1.8 | 2.7 | 2.2 | 2.8 | 4.1 | 4.7 | 2.3 | ND | ND | ND | 2.74 | 2.48 | 2.03 | 2.93 | 2.8641 | |
| Sodium | | | | | | | **21.2** | 2.7 | 15.5 | 5.7 | 7.5 | 16.5 | **21.2** | 9.6 | 9.5 | 9.2 | 10.5 | 6.5 | 9.6 | 4.2 | ND | 8.5 | 7.4 | 12.4 | 14.4 | 9.1 | 3 | 9.92 | 11.6 | 7.32 | 3.6 | 6.02 | 10.5 | 9.3763 | 20.0 |
| **PARAMETER (mg/l) TOXIC METALS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimony | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0 | 0.003 |
| Arsenic | | | | | | | ND | | ND | | ND | ND | | ND | | | 0.017 | 0.023 | | | ND | 0.005 | - | - | 0.014 | 0.005 | - | ND | 0.0163 | ND | ND | - | ND | 0.004 | 0.025 |
| Barium | | | | | | | 0.48 | 0.011 | 0.07 | | 0.18 | 0.54 | 0.64 | 0.0892 | 0.0543 | | 0.18 | 0.15 | | | ND | 0.091 | - | - | 0.283 | 0.072 | - | ND | ND | 0.0518 | 0.0147 | - | 0.0696 | 0.1294 | 1.0 |
| Beryllium | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | 0.0002 | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 1E-05 | |
| Cadmium | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 | 0.005 |
| Chromium (Total) | | | | | | | ND | ND | ND | | ND | 0.0055 | 0.0059 | ND | ND | | ND | ND | | | ND | ND | - | - | 0.001 | ND | - | ND | ND | ND | ND | - | 0.0052 | 0.0008 | 0.05 |
| Copper | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | 0.02 | ND | - | ND | ND | ND | ND | - | ND | 0.001 | 0.2 |
| Lead | | | | | | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.001 | ND | 0.001 | ND | ND | 0.003 | 0.002 | ND | 0.0043 | ND | ND | ND | 0.0028 | ND | 0.0005 | 0.025 |
| Mercury | | | | | | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND | | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | 7E-05 | - | ND | 3E-06 | 0.0007 |
| Nickel | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | | | | ND | 0.005 | - | - | 0.005 | 0.005 | - | ND | ND | 0.0036 | ND | - | 0.0045 | 0.0012 | 0.1 |
| Selenium | | | | | | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND | | | | ND | 0.005 | - | - | 0.006 | 0.006 | - | ND | ND | ND | ND | - | ND | 0.0008 | 0.0 |
| Silver | | | | | | | ND | ND | ND | | ND | ND | ND | ND | ND | | ND | | | | ND | ND | - | - | 0.001 | 0.001 | - | ND | ND | ND | ND | - | ND | 9E-05 | 0.05 |
| Thallium | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | | | | ND | ND | - | - | ND | ND | - | ND | ND | ND | ND | - | ND | 0 | 0.0005 |
| Zinc | | | | | | | ND | | ND | | ND | ND | | ND | | | 0.0466 | | | | 0.063 | 0.004 | - | - | 0.011 | ND | - | ND | 0.0221 | 0.0017 | 0.0021 | - | 0.0032 | 0.0081 | 2.0 |
| **PARAMETER (mg/l) LEACHATE INDICATORS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity | | | | | | | 468 | 67.3 | 151 | 106 | 208 | 520 | 498 | 267 | 254 | 310 | 263 | 287 | 293 | 130 | 280 | 315 | 290 | 462 | 480 | 300 | 102 | 268 | 293 | 299 | 120 | 203 | 347 | 280.79 | |
| Biochemical Oxygen Demand | | | | | | | 6 | | ND | | 3.2 | 7.4 | | ND | | | ND | ND | | ND | ND | 4 | - | - | 14.2 | 3 | ND | ND | ND | 1 | 1 | ND | ND | 1.8952 | |
| Boron | | | | | | | 0.2 | | ND | | 0.074 | 0.17 | | 0.0417 | | | 0.0534 | 0.052 | | | ND | 0.07 | - | - | 0.11 | 0.06 | - | ND | ND | 0.0457 | 0.0411 | - | 0.0507 | 0.0484 | 1.0 |
| Chemical Oxygen Demand | | | | | | | 67.1 | ND | 27.3 | ND | ND | 43.7 | 48.1 | ND | ND | | ND | ND | 14 | ND | 24 | 10.7 | 14.2 | 29.8 | 12.1 | 12.8 | 9.7 | - | 15.1 | 13 | 14 | 27.7 | 31.8 | 15.965 | |
| Chromium (Hexavalent) | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0 | 0.05 |
| Chloride | | | | | | | 39.4 | 2.3 | 1.7 | 5.6 | 8.9 | 17 | 29.1 | 12 | 12.6 | 11.1 | 23.4 | 4.1 | 11.1 | 2.87 | 12 | 9.1 | 7.5 | 8.8 | 12.6 | 10.2 | 2.9 | 8.83 | 18.6 | 12.4 | 3.2 | 2.9 | 10.7 | 11.144 | 250.0 |
| Color (PCU units) | | | | | | | **140** | | ND | | **60** | **100** | | **15** | | | 0 | **17.5** | | | 5 | **34** | - | - | **380** | **19** | - | 5 | 10 | 10 | - | - | 5 | 40.025 | 15.0 |
| Nitrate-Nitrite | | | | | | | ND | 0.16 | ND | 0.085 | ND | ND | 0.3 | ND | ND | | ND | ND | 2.7 | 0.224 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0064 | 0.21 | ND | ND | 0.1417 | 10.0 |
| Nitrogen-Ammonia | | | | | | | **18** | 0.23 | ND | 1.9 | 1.9 | **9.8** | **9.8** | 0.886 | 0.245 | 0.245 | 0.75 | 0.78 | 0.43 | ND | 1.56 | 0.795 | 1.35 | **3.02** | **8.9** | 0.674 | ND | 0.44 | 1.1 | 0.19 | 0.055 | 0.7 | 0.3 | 2.3722 | 2.0 |
| Phenols | | | | | | | ND | ND | **0.016** | ND | ND | **0.0092** | **0.054** | **0.0247** | ND | ND | ND | ND | ND | ND | ND | ND | **0.0174** | **0.03** | **0.0527** | ND | ND | **0.0125** | **0.0115** | ND | **0.0025** | **0.0123** | **0.0125** | 0.0095 | 0.001 |
| Sulfate | | | | | | | ND | 12.8 | 47.9 | 7.2 | 10.9 | ND | ND | 6.5 | 7.19 | 6.83 | 7.64 | 8.4 | 6.4 | ND | ND | 5.3 | 4.2 | 2.6 | ND | 5.4 | 10.6 | 5.78 | 9.6 | 6.6 | 8.6 | 6.5 | 5.8 | 7.1385 | 250.0 |
| Total Organic Carbon (TOC) | | | | | | | 14.6 | 2.6 | ND | 4.2 | 3.9 | 13.6 | 18.4 | 2.7 | 2 | 1.3 | 4.7 | 2.6 | 2.3 | ND | ND | 4.2 | 7.3 | 10.1 | 14.8 | 3.1 | 2.9 | 1.75 | 4.9 | ND | 4.7 | 13.5 | 3.1 | 5.3056 | |
| Total Dissolved Solids (TDS) | | | | | | | **536** | 111 | 436 | 179 | 237 | 446 | **515** | 299 | 296 | 289 | 326 | 278 | 303 | 130 | 350 | 340 | 312 | 494 | 483 | 316 | 115 | 301 | 319 | 287 | 147 | 257 | 299 | 311.15 | 500.0 |
| Total Hardness | | | | | | | 401 | 80.2 | 208 | 149 | 191 | 374 | 427 | 250 | 260 | 250 | 280 | 250 | 281 | 130 | 270 | 263 | 252 | 404 | 400 | 283 | 106 | 240 | 310 | 248 | 120 | 260 | 17.3 | 248.31 | |
| Total Kjeldahl Nitrogen (TKN) | | | | | | | 19.8 | | ND | | 2.7 | ND | | ND | | | 1.31 | 1.3 | | ND | 1.13 | 1.25 | - | - | 9.53 | 0.86 | - | 0.4 | 1.3 | 0.32 | 0.2 | 0.85 | 0.38 | 1.9681 | |
| Turbidity (NTU units) | | | | | | | **22.5** | **7.4** | ND | **9.2** | **9** | | | | | | | | | | 0 | 0.3 | - | - | **7.1** | ND | - | 0.8 | 0.8 | - | - | 0 | 0 | 3.1722 | 5.0 |
| Cyanide | | | | | | | ND | | ND | | ND | ND | | ND | | | ND | ND | | | ND | ND | - | - | ND | ND | - | - | ND | ND | - | - | ND | 0 | 0.2 |

(Shade) = Analyte reported at or above New York State standards (amended March and June 1998). These standards were used beginning with the 9/98 sampling event. Exceedances noted prior to this event reflect prior standards.

* = Applies to the sum of cis and trans-1,3-dichloropropene.

** = Guidance Value.

ND values are included in calculation of Mean and are considered equal to zero.

(Blank) or "-" = Not Analyzed.

ND = Not Detected.

<DL = Detected below method detection limit.

J = Estimated.

B = Analyte was detected in method blank.