

# J.C. Broderick & Associates, Inc.

Environmental / Construction Consulting & Testing



March 1, 2016

Mr. Terrence Clark  
Superintendent of Schools  
Bethpage Union Free School District  
Administration Building  
10 Cherry Avenue  
Bethpage, New York 11714

**Re: Confirmation Sampling of Groundwater Monitoring Wells at**

**Site: Bethpage High School  
10 Cherry Avenue  
Bethpage, New York 11714  
Site Visit: February 19, 2016**

**JCB#: 16-33543**

Dear Mr. Clark:

J.C. Broderick & Associates, Inc. (JCB) was retained to perform confirmation sampling of groundwater monitoring wells at the above referenced school building. The site visit was performed by experienced JCB Consultants on the above referenced date and consisted of the following:

- On February 19, 2016, the three (3) on-site monitoring wells were checked for the presence of Light Non-Aqueous Phase Liquid (LNAPL) utilizing a Solinst® Model 122 Product/Water Interface Meter and depth to the groundwater table was recorded to the nearest 0.01 ft. A Groundwater Gradient Map was generated from this data and is attached as Appendix-A, Figure-2. The data obtained indicates a groundwater flow direction to the south along Stewart Avenue.

The following table summarizes the survey and groundwater data:

| Table No. 2:<br>Depth to Groundwater Gauged with Interface Meter |                       |                       |                           |                            |
|------------------------------------------------------------------|-----------------------|-----------------------|---------------------------|----------------------------|
| Well Number                                                      | Depth to Product (ft) | Casing Elevation (ft) | Depth to Groundwater (ft) | Groundwater Elevation (ft) |
| MW-1                                                             | No Product            | 118.83                | 53.91                     | 64.92                      |
| MW-2                                                             | No Product            | 119.18                | 54.65                     | 64.53                      |
| MW-3                                                             | No Product            | 119.18                | 55.01                     | 64.17                      |
| <b>Notes:</b><br>ft = Feet                                       |                       |                       |                           |                            |

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Confirmation Sampling of Groundwater Monitoring Wells at  
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JCB#: 16-33543

Subsequent to the gauging, JCB collected a groundwater sample from each groundwater monitoring well. Prior to sampling, the casing volume of the monitoring well was calculated and a minimum of three (3) casing volumes of water was purged utilizing a disposable polyethylene bailer.

The following table summarizes the groundwater samples submitted for laboratory analysis:

| Table No. 3:<br>Summary of Groundwater Samples Submitted for Laboratory Analysis |              |                       |                 |
|----------------------------------------------------------------------------------|--------------|-----------------------|-----------------|
| Sample ID#                                                                       | Date Sampled | Description of Sample | Analysis Method |
| MW-1                                                                             | 11-04-15     | Monitoring Well No. 1 | EPA 524.2 List  |
| MW-2                                                                             | 11-04-15     | Monitoring Well No. 2 | EPA 524.2 List  |
| MW-3                                                                             | 11-04-15     | Monitoring Well No. 3 | EPA 524.2 List  |
| <b>Notes:</b><br>EPA = Environmental Protection Agency                           |              |                       |                 |

#### **Section No. 4.0: Laboratory Analytical Summary**

Groundwater samples selected for laboratory analysis were placed into laboratory supplied containers, assigned individual identification numbers and then placed into an appropriately conditioned cooler. Chain of Custody documents were prepared and the samples were then delivered to an independent New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for analysis.

Groundwater samples submitted for laboratory analysis were analyzed for Volatile Organic Compounds (VOCs) utilizing Environmental Protection Agency (EPA) Method 524.2 List.

York Analytical Laboratories, Inc. (York) provided laboratory analytical services. Copies of York's NYSDOH certifications are available upon request.

The laboratory analytical results for the groundwater sample was reviewed and compared to Table No. 1 of the *Ambient Water Quality Standards and Guidance Values of the New York State Department of Environmental Conservation, Division of Water, Technical and Operational Guidance Series (TOGS) (1.1.1)*.

The following table summarizes the Groundwater Analytical Results:

| Table No. 1:<br>Summary of Groundwater Samples Analysis Results |                     |         |         |         |         |         |         |
|-----------------------------------------------------------------|---------------------|---------|---------|---------|---------|---------|---------|
| Client Sample ID                                                | Allowable Standards | MW-1    | MW-1    | MW-2    | MW-2    | MW-3    | MW-3    |
| EPA 524.2 Volatiles List                                        | µg/L                | 11/7/15 | 2/19/16 | 11/7/15 | 2/19/16 | 11/7/15 | 2/19/16 |
| Benzene                                                         | 0.7                 | ND      | ND      | ND      | ND      | ND      | ND      |
| Bromobenzene                                                    | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Bromochloromethane                                              | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Bromodichloromethane                                            | 50                  | ND      | ND      | ND      | ND      | ND      | ND      |
| Bromoform                                                       | 50                  | ND      | ND      | ND      | ND      | ND      | ND      |
| Bromomethane                                                    | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| tert-Butyl-Benzene                                              | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| n-Butylbenzene                                                  | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |

March 1, 2016

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 Bethpage High School 10 Cherry Ave., Bethpage, NY 11714  
 JCB#: 16-33543

**Table No. 1:**  
**Summary of Groundwater Samples Analysis Results**

| Client Sample ID                    | Allowable Standards | MW-1    | MW-1    | MW-2    | MW-2    | MW-3    | MW-3    |
|-------------------------------------|---------------------|---------|---------|---------|---------|---------|---------|
| EPA 524.2 Volatiles List            | µg/L                | 11/7/15 | 2/19/16 | 11/7/15 | 2/19/16 | 11/7/15 | 2/19/16 |
| sec-Butyl-Benzene                   | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Carbon Tetrachloride                | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Chlorobenzene                       | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Chloroethane                        | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Chloroform                          | 7                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Chloromethane (Methyl Chloride)     | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 2-Chlorotoluene                     | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 4-Chlorotoluene                     | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Dibromochloromethane                | 50                  | ND      | ND      | ND      | ND      | ND      | ND      |
| Dibromomethane                      | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,2- Dichlorobenzene                | 3                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,4- Dichlorobenzene                | 3                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,3- Dichlorobenzene                | 3                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Dichlorodifluoromethane (Freon® 12) | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,2-Dichloroethane                  | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1-Dichloroethane                  | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| trans-1,2-Dichloroethylene          | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| cis-1,2-Dichloroethylene            | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1-Dichloroethylene                | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,2-Dichloropropane                 | 1                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 2,2-Dichloropropane                 | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,3-Dichloropropane                 | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| cis-1,3-Dichloropropylene           | 0.4                 | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1-Dichloropropylene               | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| trans-1,3-Dichloropropylene         | 0.4                 | ND      | ND      | ND      | ND      | ND      | ND      |
| Ethylbenzene                        | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Hexachlorobutadiene                 | 0.5                 | ND      | ND      | ND      | ND      | ND      | ND      |
| Isopropylbenzene                    | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| p-Isopropyltoluene                  | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Methyl-tert-butyl ether (MtBE)      | 10                  | ND      | ND      | ND      | ND      | ND      | ND      |
| Methylene Chloride                  | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Naphthalene                         | 10                  | ND      | ND      | ND      | ND      | ND      | ND      |
| n-Propylbenzene                     | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Styrene                             | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1,1,2-Tetrachloroethane           | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1,2,2-Tetrachloroethane           | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Tetrachloroethylene                 | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Toluene                             | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,2,4-Trichlorobenzene              | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,2,3-Trichlorobenzene              | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |

| Table No. 1:<br>Summary of Groundwater Samples Analysis Results                                                                                                                                  |                     |         |         |         |         |         |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|---------|---------|---------|---------|---------|
| Client Sample ID                                                                                                                                                                                 | Allowable Standards | MW-1    | MW-1    | MW-2    | MW-2    | MW-3    | MW-3    |
| EPA 524.2 Volatiles List                                                                                                                                                                         | µg/L                | 11/7/15 | 2/19/16 | 11/7/15 | 2/19/16 | 11/7/15 | 2/19/16 |
| 1,1,1-Trichloroethane                                                                                                                                                                            | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,1,2-Trichloroethane                                                                                                                                                                            | 1                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Trichloroethylene                                                                                                                                                                                | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Trichlorofluoromethane (Freon® 11)                                                                                                                                                               | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,2,3-Trichloropropane                                                                                                                                                                           | 0.04                | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,3,5-Trimethylbenzene                                                                                                                                                                           | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| 1,2,4-Trimethylbenzene                                                                                                                                                                           | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Vinyl Chloride                                                                                                                                                                                   | 2                   | ND      | ND      | ND      | ND      | ND      | ND      |
| o-Xylene                                                                                                                                                                                         | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| p- & m- Xylenes                                                                                                                                                                                  | 5                   | ND      | ND      | ND      | ND      | ND      | ND      |
| Chlorodifluoromethane (Freon® 22)                                                                                                                                                                | N/A                 | ND      | ND      | 24      | 1.9     | 0.9     | 1.4     |
| <b>Notes:</b><br>µg/L = parts per billion<br>N/A = Guidance Value Not Established by the New York State Department of Environmental Conservation at the time of this report<br>ND = Not Detected |                     |         |         |         |         |         |         |

The laboratory analysis results from the groundwater sample submitted from MW-1 **did not** reveal any elevated concentrations of VOCs, Freon® 11, Freon® 12 or Freon® 22 exceeding the above referenced guidance values.

The laboratory analysis results from the groundwater samples submitted from MW-2 and MW-3 **did not** reveal any elevated concentrations of VOCs, Freon® 11 or Freon® 12 exceeding the above referenced guidance values.

The laboratory analysis results from the groundwater samples submitted from MW-2 and MW-3 **did** reveal detectable concentrations of Freon® 22; however, no guidance value has been established by the New York State Department of Environmental Conservation (NYSDEC) regarding this compound.

#### **Section No. 5.0: Quality Assurance and Quality Control (QA/QC) Procedures**

In order to prevent cross-contamination between sampling locations, all re-usable sampling equipment which came into contact with sample materials was decontaminated prior to each use. Equipment used for sample collection was wiped clean, washed in a solution of Alconox and thoroughly rinsed with potable water. All down-hole equipment which did not come into contact with sample material was pressure rinsed with potable water prior to the start of each boring. New and dedicated polyethylene tubing was used for collection of each groundwater sample. All sampling personnel wore disposable latex, nylon, or nitrile gloves during sampling events. At a minimum, gloves were changed between boring locations and before each laboratory sample was collected. All collected samples were placed into an appropriately conditioned cooler for storage and were transported to the laboratory. Samples were maintained between 0°C and 8°C.

March 1, 2016

Mr. Terrence Clark of Bethpage Union Free School District  
Confirmation Sampling of Groundwater Monitoring Wells at  
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JCB#: 16-33543

### **Section No. 6.0: Conclusions and Recommendations**

JCB collected confirmation samples from groundwater monitoring wells MW-2 and MW-3 to simulate the sampling performed in November 2015. The laboratory analysis results from the groundwater samples submitted from MW-2 and MW-3 confirmed the detection of Freon® 22; however, the concentration in MW-2 was significantly less (24 ppb vs 1.9 ppb) when compared to the November 2015 sample. It should be noted that currently no guidance value has been established by the New York State Department of Environmental Conservation (NYSDEC) regarding this compound.

Based on the findings of this confirmation sampling event, it appears the groundwater monitoring wells installed on the school property have revealed evidence of off-site contamination influencing the groundwater quality beneath the school property.

JCB recommends semi-annual monitoring and sampling of the three (3) on-site groundwater monitoring wells to gain additional groundwater quality data and to establish a concentration trend.

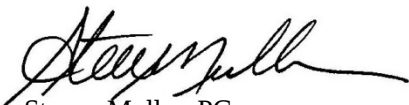
Sincerely,

J.C. Broderick & Associates, Inc.



Jeffrey V. Nannini

**Environmental Scientist**



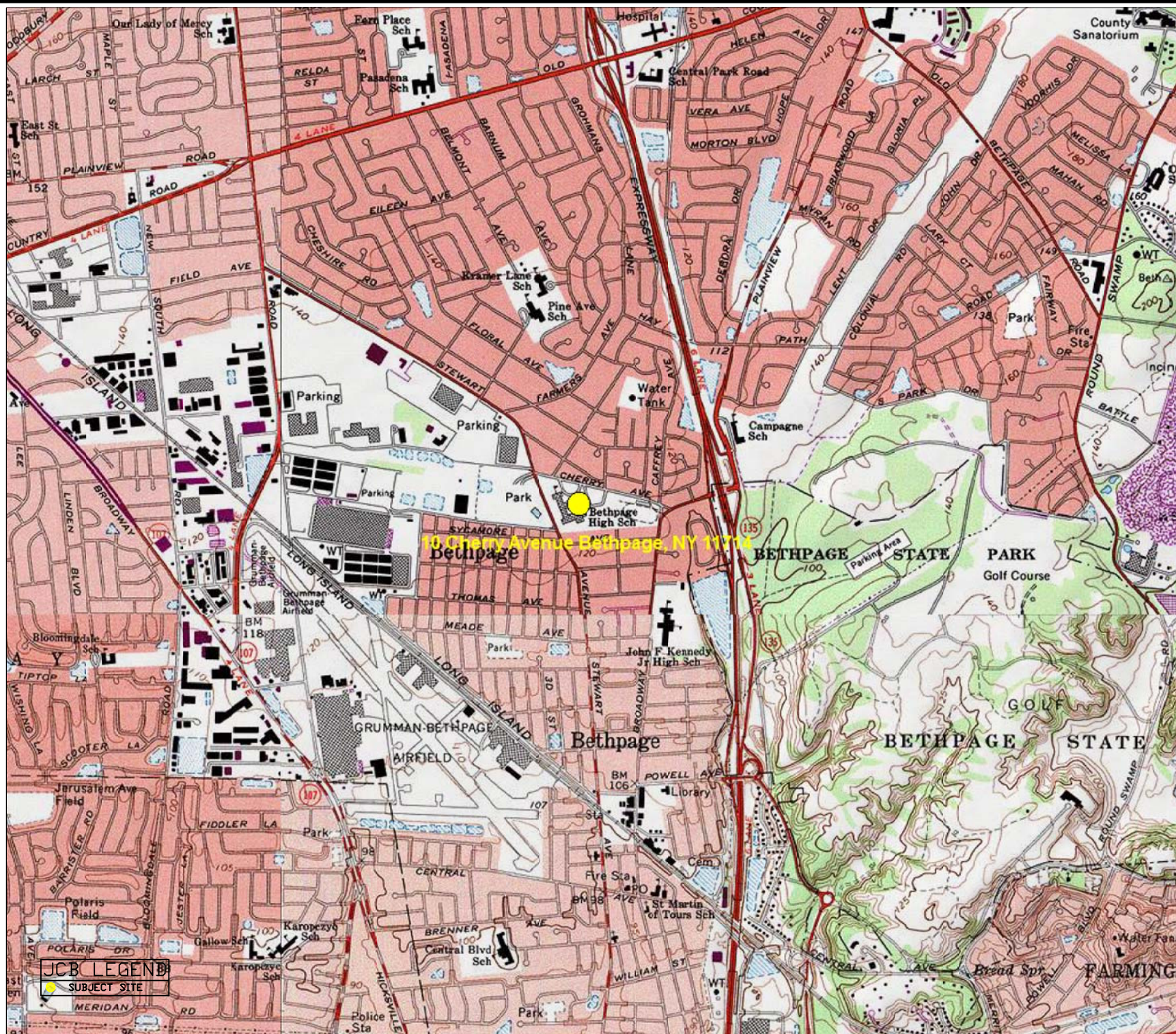
Steven Muller, PG

**Project Manager**

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# **Appendix A**

## **Figures**



**J.C. BRODERICK**

**& Associates**  
 Environmental Consulting and  
 Testing  
 1775 Express Drive North  
 Hauppauge, NY 11788  
 Phone: (631).584.5492  
 Fax: (631).584.3395

Notes:

Bethpage High School  
 10 Cherry Avenue  
 Bethpage, NY 11714

Drawing Title

Figure No. 1  
 Site Location Map

|                   |                         |                  |
|-------------------|-------------------------|------------------|
| Scale<br>As Noted | Project No.<br>15-32442 | Date<br>11-04-15 |
|-------------------|-------------------------|------------------|

|                    |                      |                    |
|--------------------|----------------------|--------------------|
| Drawn By<br>J.V.N. | Checked By<br>S.W.M. | Page No.<br>1 of 3 |
|--------------------|----------------------|--------------------|

Drawing No.

1



**J.C. BRODERICK**

**& Associates**

Environmental  
Consulting and Testing  
1775 Expressway Drive North  
Hauppauge, NY 11788  
Phone: (631).584.5492  
Fax: (631).584.3395

Notes:

Bethpage High School  
10 Cherry Avenue  
Bethpage, NY 11714

Drawing Title

Figure No. 2

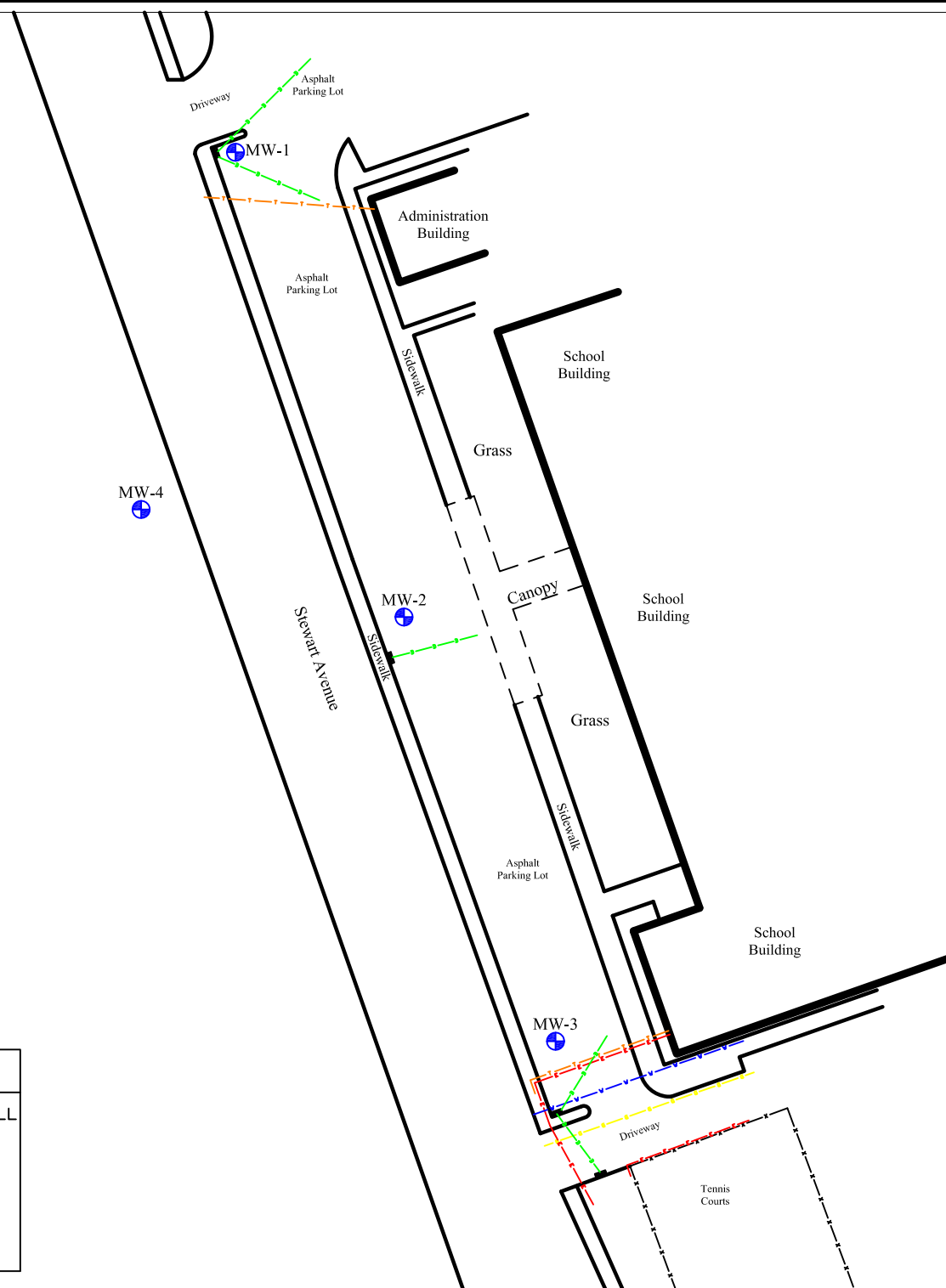
Underground  
Utility and  
Monitoring Well  
Locations  
Map

| Scale    | Project No. | Date     |
|----------|-------------|----------|
| As Noted | 15-32442    | 11-04-15 |

| Drawn By | Checked By | Page No. |
|----------|------------|----------|
| J.V.N.   | S.W.M.     | 2 of 3   |

Drawing No.

2



20 0 40 80  
Scale in feet

## JCB LEGEND

-  GROUNDWATER MONITORING WELL
-  RECTANGULAR CATCH BASIN
-  TELEPHONE LINE
-  WATER LINE
-  STORM DRAIN LINE
-  ELECTRIC LINE
-  VARIOUS FENCING
-  NATURAL GAS LINE



**J.C. BRODERICK**

**& Associates**

Environmental  
Consulting and Testing  
1775 Expressway Drive North  
Hauppauge, NY 11788  
Phone: (631).584.5492  
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Notes:

Bethpage High School  
10 Cherry Avenue  
Bethpage, NY 11714

Drawing Title

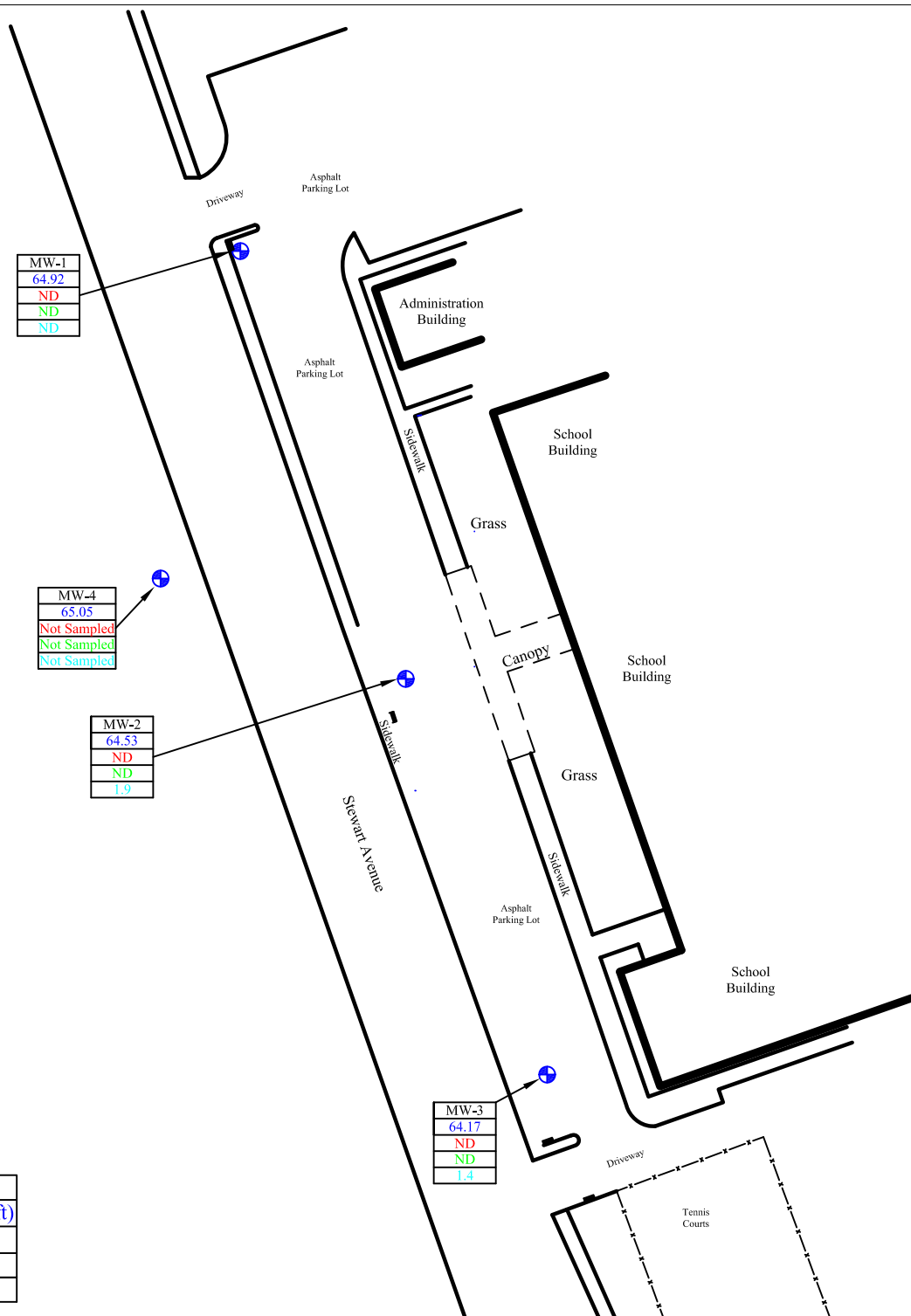
Figure No. 3  
Analytical Results  
Map

Scale As Noted Project No. 15-32442 Date 02-19-16

Drawn By J.V.N. Checked By S.W.M. Page No. 3 of 3

Drawing No.

3



PROJECT



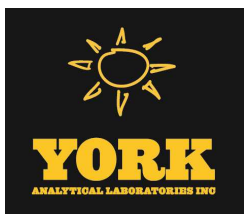
Scale in feet  
20 0 40 80

| WELL NUMBER                |
|----------------------------|
| GROUNDWATER ELEVATION (ft) |
| TOTAL VOCs (µg/L)          |
| FREON 12 (µg/L)            |
| FREON 22 (µg/L)            |

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# **Appendix B**

## **Laboratory Analysis Report**



# Technical Report

prepared for:

**J.C. Broderick**  
1775 North Express Drive  
Hauppauge NY, 11788  
**Attention: Steven Muller**

Report Date: 02/29/2016  
**Client Project ID: 16-33543**  
York Project (SDG) No.: 16B0697

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Report Date: 02/29/2016  
Client Project ID: 16-33543  
York Project (SDG) No.: 16B0697

**J.C. Broderick**  
1775 North Express Drive  
Hauppauge NY, 11788  
Attention: Steven Muller

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on February 22, 2016 and listed below. The project was identified as your project: **16-33543**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

| <u>York Sample ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> |
|-----------------------|-------------------------|---------------|-----------------------|----------------------|
| 16B0697-01            | MW-1                    | Water         | 02/19/2016            | 02/22/2016           |
| 16B0697-02            | MW-2                    | Water         | 02/19/2016            | 02/22/2016           |
| 16B0697-03            | MW-3                    | Water         | 02/19/2016            | 02/22/2016           |

## General Notes for York Project (SDG) No.: 16B0697

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Benjamin Gulizia  
Laboratory Director

Date: 02/29/2016





## Sample Information

**Client Sample ID:** MW-1

**York Sample ID:** 16B0697-01

**York Project (SDG) No.**

16B0697

**Client Project ID**

16-33543

**Matrix**

Water

**Collection Date/Time**

February 19, 2016 3:00 pm

**Date Received**

02/22/2016

### Volatile Organics, 524.2 List

### Log-in Notes:

### Sample Notes:

Sample Prepared by Method: EPA 5030B

| CAS No.  | Parameter            | Result | Flag | Units | LOD/MDL | Reported to<br>LOQ | Dilution | Reference Method                                       | Date/Time<br>Prepared | Date/Time<br>Analyzed | Analyst |
|----------|----------------------|--------|------|-------|---------|--------------------|----------|--------------------------------------------------------|-----------------------|-----------------------|---------|
| 71-43-2  | Benzene              | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 108-86-1 | Bromobenzene         | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 74-97-5  | Bromochloromethane   | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 75-27-4  | Bromodichloromethane | ND     |      | ug/L  | 0.06    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 75-25-2  | Bromoform            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 74-83-9  | Bromomethane         | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 98-06-6  | tert-Butylbenzene    | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 104-51-8 | n-Butylbenzene       | ND     |      | ug/L  | 0.09    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 135-98-8 | sec-Butylbenzene     | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854       | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 56-23-5  | Carbon tetrachloride | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 108-90-7 | Chlorobenzene        | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 75-00-3  | Chloroethane         | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 67-66-3  | Chloroform           | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 74-87-3  | Chloromethane        | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 95-49-8  | 2-Chlorotoluene      | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 106-43-4 | 4-Chlorotoluene      | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 124-48-1 | Dibromochloromethane | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 74-95-3  | Dibromomethane       | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 95-50-1  | 1,2-Dichlorobenzene  | ND     |      | ug/L  | 0.05    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 106-46-7 | 1,4-Dichlorobenzene  | ND     |      | ug/L  | 0.05    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 541-73-1 | 1,3-Dichlorobenzene  | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |



## Sample Information

**Client Sample ID:** MW-1

**York Sample ID:** 16B0697-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16B0697

16-33543

Water

February 19, 2016 3:00 pm

02/22/2016

### Volatile Organics, 524.2 List

### Log-in Notes:

### Sample Notes:

Sample Prepared by Method: EPA 5030B

| CAS No.    | Parameter                      | Result | Flag | Units | LOD/MDL | Reported to<br>LOQ | Dilution | Reference Method                                       | Date/Time<br>Prepared | Date/Time<br>Analyzed | Analyst |
|------------|--------------------------------|--------|------|-------|---------|--------------------|----------|--------------------------------------------------------|-----------------------|-----------------------|---------|
| 75-71-8    | Dichlorodifluoromethane        | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 107-06-2   | 1,2-Dichloroethane             | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 75-34-3    | 1,1-Dichloroethane             | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 156-60-5   | trans-1,2-Dichloroethylene     | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 156-59-2   | cis-1,2-Dichloroethylene       | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 75-35-4    | 1,1-Dichloroethylene           | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 78-87-5    | 1,2-Dichloropropane            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 594-20-7   | * 2,2-Dichloropropane          | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NJDEP               | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 142-28-9   | 1,3-Dichloropropane            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 10061-01-5 | cis-1,3-Dichloropropylene      | ND     |      | ug/L  | 0.04    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 563-58-6   | 1,1-Dichloropropylene          | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 10061-02-6 | trans-1,3-Dichloropropylene    | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 100-41-4   | Ethyl Benzene                  | ND     |      | ug/L  | 0.09    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 87-68-3    | Hexachlorobutadiene            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 98-82-8    | Isopropylbenzene               | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 99-87-6    | p-Isopropyltoluene             | ND     |      | ug/L  | 0.07    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 1634-04-4  | Methyl tert-butyl ether (MTBE) | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 75-09-2    | Methylene chloride             | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 91-20-3    | Naphthalene                    | ND     |      | ug/L  | 0.06    | 2.0                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 103-65-1   | n-Propylbenzene                | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 100-42-5   | Styrene                        | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 630-20-6   | 1,1,1,2-Tetrachloroethane      | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |



## Sample Information

**Client Sample ID:** MW-1

**York Sample ID:** 16B0697-01

York Project (SDG) No.  
16B0697

Client Project ID  
16-33543

Matrix  
Water

Collection Date/Time  
February 19, 2016 3:00 pm

Date Received  
02/22/2016

### Volatile Organics, 524.2 List

### Log-in Notes:

### Sample Notes:

Sample Prepared by Method: EPA 5030B

| CAS No.                     | Parameter                        | Result        | Flag                    | Units | LOD/MDL | Reported to<br>LOQ | Dilution | Reference Method                                       | Date/Time<br>Prepared | Date/Time<br>Analyzed | Analyst |
|-----------------------------|----------------------------------|---------------|-------------------------|-------|---------|--------------------|----------|--------------------------------------------------------|-----------------------|-----------------------|---------|
| 79-34-5                     | 1,1,2,2-Tetrachloroethane        | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 127-18-4                    | Tetrachloroethylene              | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 108-88-3                    | Toluene                          | ND            |                         | ug/L  | 0.05    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 120-82-1                    | 1,2,4-Trichlorobenzene           | ND            |                         | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 87-61-6                     | 1,2,3-Trichlorobenzene           | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 71-55-6                     | 1,1,1-Trichloroethane            | ND            |                         | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 79-00-5                     | 1,1,2-Trichloroethane            | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 79-01-6                     | Trichloroethylene                | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 75-69-4                     | Trichlorofluoromethane           | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 96-18-4                     | 1,2,3-Trichloropropane           | ND            |                         | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 108-67-8                    | 1,3,5-Trimethylbenzene           | ND            |                         | ug/L  | 0.07    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 95-63-6                     | 1,2,4-Trimethylbenzene           | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 75-01-4                     | Vinyl Chloride                   | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 95-47-6                     | o-Xylene                         | ND            |                         | ug/L  | 0.07    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854       | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 179601-23-1                 | p- & m- Xylenes                  | ND            |                         | ug/L  | 0.2     | 1.0                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854       | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 75-45-6                     | Chlorodifluoromethane (Freon 22) | ND            |                         | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: NELAC-NY10854             | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| 1330-20-7                   | Xylenes, Total                   | ND            |                         | ug/L  | 1.5     | 1.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 16:24      | SS      |
| <b>Surrogate Recoveries</b> |                                  | <b>Result</b> | <b>Acceptance Range</b> |       |         |                    |          |                                                        |                       |                       |         |
| 17060-07-0                  | Surrogate: 1,2-Dichloroethane-d4 | 107 %         | 69-130                  |       |         |                    |          |                                                        |                       |                       |         |
| 460-00-4                    | Surrogate: p-Bromofluorobenzene  | 94.1 %        | 79-122                  |       |         |                    |          |                                                        |                       |                       |         |
| 2037-26-5                   | Surrogate: Toluene-d8            | 104 %         | 81-117                  |       |         |                    |          |                                                        |                       |                       |         |



## Sample Information

**Client Sample ID:** MW-2

**York Sample ID:** 16B0697-02

York Project (SDG) No.  
16B0697

Client Project ID  
16-33543

Matrix  
Water

Collection Date/Time  
February 19, 2016 3:00 pm

Date Received  
02/22/2016

### Volatile Organics, 524.2 List

### Log-in Notes:

### Sample Notes:

Sample Prepared by Method: EPA 5030B

| CAS No.  | Parameter               | Result | Flag | Units | LOD/MDL | Reported to<br>LOQ | Dilution | Reference Method                                       | Date/Time<br>Prepared | Date/Time<br>Analyzed | Analyst |
|----------|-------------------------|--------|------|-------|---------|--------------------|----------|--------------------------------------------------------|-----------------------|-----------------------|---------|
| 71-43-2  | Benzene                 | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 108-86-1 | Bromobenzene            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 74-97-5  | Bromochloromethane      | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 75-27-4  | Bromodichloromethane    | ND     |      | ug/L  | 0.06    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 75-25-2  | Bromoform               | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 74-83-9  | Bromomethane            | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 98-06-6  | tert-Butylbenzene       | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 104-51-8 | n-Butylbenzene          | ND     |      | ug/L  | 0.09    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 135-98-8 | sec-Butylbenzene        | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854       | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 56-23-5  | Carbon tetrachloride    | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 108-90-7 | Chlorobenzene           | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 75-00-3  | Chloroethane            | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 67-66-3  | Chloroform              | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 74-87-3  | Chloromethane           | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 95-49-8  | 2-Chlorotoluene         | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 106-43-4 | 4-Chlorotoluene         | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 124-48-1 | Dibromochloromethane    | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 74-95-3  | Dibromomethane          | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 95-50-1  | 1,2-Dichlorobenzene     | ND     |      | ug/L  | 0.05    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 106-46-7 | 1,4-Dichlorobenzene     | ND     |      | ug/L  | 0.05    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 541-73-1 | 1,3-Dichlorobenzene     | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 75-71-8  | Dichlorodifluoromethane | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |



## Sample Information

**Client Sample ID:** MW-2

**York Sample ID:** 16B0697-02

York Project (SDG) No.  
16B0697

Client Project ID  
16-33543

Matrix  
Water

Collection Date/Time  
February 19, 2016 3:00 pm

Date Received  
02/22/2016

### Volatile Organics, 524.2 List

### Log-in Notes:

### Sample Notes:

Sample Prepared by Method: EPA 5030B

| CAS No.    | Parameter                      | Result | Flag | Units | LOD/MDL | Reported to<br>LOQ | Dilution | Reference Method                                       | Date/Time<br>Prepared | Date/Time<br>Analyzed | Analyst |
|------------|--------------------------------|--------|------|-------|---------|--------------------|----------|--------------------------------------------------------|-----------------------|-----------------------|---------|
| 107-06-2   | 1,2-Dichloroethane             | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 75-34-3    | 1,1-Dichloroethane             | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 156-60-5   | trans-1,2-Dichloroethylene     | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 156-59-2   | cis-1,2-Dichloroethylene       | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 75-35-4    | 1,1-Dichloroethylene           | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 78-87-5    | 1,2-Dichloropropane            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 594-20-7   | * 2,2-Dichloropropane          | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NJDEP               | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 142-28-9   | 1,3-Dichloropropane            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 10061-01-5 | cis-1,3-Dichloropropylene      | ND     |      | ug/L  | 0.04    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 563-58-6   | 1,1-Dichloropropylene          | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 10061-02-6 | trans-1,3-Dichloropropylene    | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 100-41-4   | Ethyl Benzene                  | ND     |      | ug/L  | 0.09    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 87-68-3    | Hexachlorobutadiene            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 98-82-8    | Isopropylbenzene               | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 99-87-6    | p-Isopropyltoluene             | ND     |      | ug/L  | 0.07    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 1634-04-4  | Methyl tert-butyl ether (MTBE) | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 75-09-2    | Methylene chloride             | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 91-20-3    | Naphthalene                    | ND     |      | ug/L  | 0.06    | 2.0                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 103-65-1   | n-Propylbenzene                | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 100-42-5   | Styrene                        | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 630-20-6   | 1,1,1,2-Tetrachloroethane      | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 79-34-5    | 1,1,2,2-Tetrachloroethane      | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |



## Sample Information

**Client Sample ID:** MW-2

**York Sample ID:** 16B0697-02

York Project (SDG) No.  
16B0697

Client Project ID  
16-33543

Matrix  
Water

Collection Date/Time  
February 19, 2016 3:00 pm

Date Received  
02/22/2016

### Volatile Organics, 524.2 List

### Log-in Notes:

### Sample Notes:

Sample Prepared by Method: EPA 5030B

| CAS No.                     | Parameter                               | Result        | Flag                    | Units | LOD/MDL | Reported to<br>LOQ | Dilution | Reference Method                                       | Date/Time<br>Prepared | Date/Time<br>Analyzed | Analyst |
|-----------------------------|-----------------------------------------|---------------|-------------------------|-------|---------|--------------------|----------|--------------------------------------------------------|-----------------------|-----------------------|---------|
| 127-18-4                    | Tetrachloroethylene                     | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 108-88-3                    | Toluene                                 | ND            |                         | ug/L  | 0.05    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 120-82-1                    | 1,2,4-Trichlorobenzene                  | ND            |                         | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 87-61-6                     | 1,2,3-Trichlorobenzene                  | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 71-55-6                     | 1,1,1-Trichloroethane                   | ND            |                         | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 79-00-5                     | 1,1,2-Trichloroethane                   | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 79-01-6                     | Trichloroethylene                       | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 75-69-4                     | Trichlorofluoromethane                  | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 96-18-4                     | 1,2,3-Trichloropropane                  | ND            |                         | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 108-67-8                    | 1,3,5-Trimethylbenzene                  | ND            |                         | ug/L  | 0.07    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 95-63-6                     | 1,2,4-Trimethylbenzene                  | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 75-01-4                     | Vinyl Chloride                          | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 95-47-6                     | o-Xylene                                | ND            |                         | ug/L  | 0.07    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854       | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 179601-23-1                 | p- & m- Xylenes                         | ND            |                         | ug/L  | 0.2     | 1.0                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854       | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 75-45-6                     | <b>Chlorodifluoromethane (Freon 22)</b> | <b>1.9</b>    |                         | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: NELAC-NY10854             | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| 1330-20-7                   | Xylenes, Total                          | ND            |                         | ug/L  | 1.5     | 1.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:04      | SS      |
| <b>Surrogate Recoveries</b> |                                         | <b>Result</b> | <b>Acceptance Range</b> |       |         |                    |          |                                                        |                       |                       |         |
| 17060-07-0                  | Surrogate: 1,2-Dichloroethane-d4        | 112 %         | 69-130                  |       |         |                    |          |                                                        |                       |                       |         |
| 460-00-4                    | Surrogate: p-Bromofluorobenzene         | 96.4 %        | 79-122                  |       |         |                    |          |                                                        |                       |                       |         |
| 2037-26-5                   | Surrogate: Toluene-d8                   | 102 %         | 81-117                  |       |         |                    |          |                                                        |                       |                       |         |



## Sample Information

**Client Sample ID:** MW-3

**York Sample ID:** 16B0697-03

York Project (SDG) No.  
16B0697

Client Project ID  
16-33543

Matrix  
Water

Collection Date/Time  
February 19, 2016 3:00 pm

Date Received  
02/22/2016

### Volatile Organics, 524.2 List

### Log-in Notes:

### Sample Notes:

Sample Prepared by Method: EPA 5030B

| CAS No.  | Parameter               | Result | Flag | Units | LOD/MDL | Reported to<br>LOQ | Dilution | Reference Method                                       | Date/Time<br>Prepared | Date/Time<br>Analyzed | Analyst |
|----------|-------------------------|--------|------|-------|---------|--------------------|----------|--------------------------------------------------------|-----------------------|-----------------------|---------|
| 71-43-2  | Benzene                 | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 108-86-1 | Bromobenzene            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 74-97-5  | Bromochloromethane      | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 75-27-4  | Bromodichloromethane    | ND     |      | ug/L  | 0.06    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 75-25-2  | Bromoform               | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 74-83-9  | Bromomethane            | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 98-06-6  | tert-Butylbenzene       | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 104-51-8 | n-Butylbenzene          | ND     |      | ug/L  | 0.09    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 135-98-8 | sec-Butylbenzene        | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854       | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 56-23-5  | Carbon tetrachloride    | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 108-90-7 | Chlorobenzene           | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 75-00-3  | Chloroethane            | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 67-66-3  | Chloroform              | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 74-87-3  | Chloromethane           | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 95-49-8  | 2-Chlorotoluene         | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 106-43-4 | 4-Chlorotoluene         | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 124-48-1 | Dibromochloromethane    | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 74-95-3  | Dibromomethane          | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 95-50-1  | 1,2-Dichlorobenzene     | ND     |      | ug/L  | 0.05    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 106-46-7 | 1,4-Dichlorobenzene     | ND     |      | ug/L  | 0.05    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 541-73-1 | 1,3-Dichlorobenzene     | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 75-71-8  | Dichlorodifluoromethane | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |



## Sample Information

**Client Sample ID:** MW-3

**York Sample ID:** 16B0697-03

York Project (SDG) No.  
16B0697

Client Project ID  
16-33543

Matrix  
Water

Collection Date/Time  
February 19, 2016 3:00 pm

Date Received  
02/22/2016

### Volatile Organics, 524.2 List

### Log-in Notes:

### Sample Notes:

Sample Prepared by Method: EPA 5030B

| CAS No.    | Parameter                      | Result | Flag | Units | LOD/MDL | Reported to<br>LOQ | Dilution | Reference Method                                       | Date/Time<br>Prepared | Date/Time<br>Analyzed | Analyst |
|------------|--------------------------------|--------|------|-------|---------|--------------------|----------|--------------------------------------------------------|-----------------------|-----------------------|---------|
| 107-06-2   | 1,2-Dichloroethane             | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 75-34-3    | 1,1-Dichloroethane             | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 156-60-5   | trans-1,2-Dichloroethylene     | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 156-59-2   | cis-1,2-Dichloroethylene       | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 75-35-4    | 1,1-Dichloroethylene           | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 78-87-5    | 1,2-Dichloropropane            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 594-20-7   | * 2,2-Dichloropropane          | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NJDEP               | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 142-28-9   | 1,3-Dichloropropane            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 10061-01-5 | cis-1,3-Dichloropropylene      | ND     |      | ug/L  | 0.04    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 563-58-6   | 1,1-Dichloropropylene          | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 10061-02-6 | trans-1,3-Dichloropropylene    | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 100-41-4   | Ethyl Benzene                  | ND     |      | ug/L  | 0.09    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 87-68-3    | Hexachlorobutadiene            | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 98-82-8    | Isopropylbenzene               | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 99-87-6    | p-Isopropyltoluene             | ND     |      | ug/L  | 0.07    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 1634-04-4  | Methyl tert-butyl ether (MTBE) | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 75-09-2    | Methylene chloride             | ND     |      | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 91-20-3    | Naphthalene                    | ND     |      | ug/L  | 0.06    | 2.0                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 103-65-1   | n-Propylbenzene                | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 100-42-5   | Styrene                        | ND     |      | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 630-20-6   | 1,1,1,2-Tetrachloroethane      | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 79-34-5    | 1,1,2,2-Tetrachloroethane      | ND     |      | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |



## Sample Information

**Client Sample ID:** MW-3

**York Sample ID:** 16B0697-03

York Project (SDG) No.  
16B0697

Client Project ID  
16-33543

Matrix  
Water

Collection Date/Time  
February 19, 2016 3:00 pm

Date Received  
02/22/2016

### Volatile Organics, 524.2 List

### Log-in Notes:

### Sample Notes:

Sample Prepared by Method: EPA 5030B

| CAS No.                     | Parameter                               | Result        | Flag                    | Units | LOD/MDL | Reported to<br>LOQ | Dilution | Reference Method                                       | Date/Time<br>Prepared | Date/Time<br>Analyzed | Analyst |
|-----------------------------|-----------------------------------------|---------------|-------------------------|-------|---------|--------------------|----------|--------------------------------------------------------|-----------------------|-----------------------|---------|
| 127-18-4                    | Tetrachloroethylene                     | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 108-88-3                    | Toluene                                 | ND            |                         | ug/L  | 0.05    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 120-82-1                    | 1,2,4-Trichlorobenzene                  | ND            |                         | ug/L  | 0.08    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 87-61-6                     | 1,2,3-Trichlorobenzene                  | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 71-55-6                     | 1,1,1-Trichloroethane                   | ND            |                         | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 79-00-5                     | 1,1,2-Trichloroethane                   | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 79-01-6                     | Trichloroethylene                       | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 75-69-4                     | Trichlorofluoromethane                  | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 96-18-4                     | 1,2,3-Trichloropropane                  | ND            |                         | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 108-67-8                    | 1,3,5-Trimethylbenzene                  | ND            |                         | ug/L  | 0.07    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 95-63-6                     | 1,2,4-Trimethylbenzene                  | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 75-01-4                     | Vinyl Chloride                          | ND            |                         | ug/L  | 0.1     | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 95-47-6                     | o-Xylene                                | ND            |                         | ug/L  | 0.07    | 0.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854       | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 179601-23-1                 | p- & m- Xylenes                         | ND            |                         | ug/L  | 0.2     | 1.0                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854       | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 75-45-6                     | <b>Chlorodifluoromethane (Freon 22)</b> | <b>1.4</b>    |                         | ug/L  | 0.2     | 0.5                | 1        | EPA 524.2<br>Certifications: NELAC-NY10854             | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| 1330-20-7                   | Xylenes, Total                          | ND            |                         | ug/L  | 1.5     | 1.5                | 1        | EPA 524.2<br>Certifications: CTDOH,NELAC-NY10854,NJDEP | 02/29/2016 09:03      | 02/29/2016 17:43      | SS      |
| <b>Surrogate Recoveries</b> |                                         | <b>Result</b> | <b>Acceptance Range</b> |       |         |                    |          |                                                        |                       |                       |         |
| 17060-07-0                  | Surrogate: 1,2-Dichloroethane-d4        | 113 %         | 69-130                  |       |         |                    |          |                                                        |                       |                       |         |
| 460-00-4                    | Surrogate: p-Bromofluorobenzene         | 96.2 %        | 79-122                  |       |         |                    |          |                                                        |                       |                       |         |
| 2037-26-5                   | Surrogate: Toluene-d8                   | 106 %         | 81-117                  |       |         |                    |          |                                                        |                       |                       |         |



### Volatile Analysis Sample Containers

| Lab ID     | Client Sample ID | Volatile Sample Container                     |
|------------|------------------|-----------------------------------------------|
| 16B0697-01 | MW-1             | 40mL Clear Vial (pre-pres.) HCl; Cool to 4° C |
| 16B0697-02 | MW-2             | 40mL Clear Vial (pre-pres.) HCl; Cool to 4° C |
| 16B0697-03 | MW-3             | 40mL Clear Vial (pre-pres.) HCl; Cool to 4° C |



## Notes and Definitions

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|             |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| *           | Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.                                                                                                                                                                                                                                                                                                                               |
| ND          | NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)                                                                                                                                                                                                                                                                                                                                                      |
| RL          | REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.                                                                                                                                                                                                                                                                                                                                 |
| LOQ         | LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.                                                                     |
| LOD         | LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.                                                                                                                                                                       |
| MDL         | METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.                                                                                                                |
| Reported to | This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.                                                                                                 |
| NR          | Not reported                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RPD         | Relative Percent Difference                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Wet         | The data has been reported on an as-received (wet weight) basis                                                                                                                                                                                                                                                                                                                                                                              |
| Low Bias    | Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.           |
| High Bias   | High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.         |
| Non-Dir.    | Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons. |

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

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