

November 30, 2017

MD Hoque
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7016

**RE: Sixth and Seventh Quarterly Groundwater Monitoring Events Report
Former Strauss Auto
535 4th Avenue
Brooklyn, New York
BCP Site No. C224189
Langan Project No.: 170264501**

Dear Mr. Houque:

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) prepared this letter report to summarize the sixth and seventh quarterly groundwater monitoring events at the Former Strauss Auto site located at 535 4th Avenue, Brooklyn, New York (New York State Brownfield Cleanup Site No. C224189). Groundwater monitoring was conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP), dated October 6, 2016. Groundwater monitoring results from the first five quarters were summarized in the NYSDEC-approved Final Engineering Report (FER), dated November 28, 2016, and Fourth and Fifth Quarterly Groundwater Monitoring Events Report, June 22, 2017.

Background

The site is a rectangular-shaped, 18,200 square feet (± 0.418 acres) parcel located in the Park Slope neighborhood of Brooklyn, New York (Brooklyn Borough Tax Map Block 1041, Lot 1) and is bound by 15th Street to the north, multiple-story residential buildings to the east, 14th Street to the south, and 4th Avenue to the west. A Site Location Map is presented as Figure 1.

Historical uses of the site include a church from at least 1888 to 1906 and an automobile repair facility from at least 1965 to 2012. The automobile repair facility was a Resource Conservation and Recoveries Act (RCRA) generator of tetrachloroethylene (PCE) waste, and the site contained several underground storage tanks as well as various sumps, pits and hydraulic lifts. A Brownfield Cleanup Agreement was executed on June 10, 2014 and the site was remediated in accordance with a NYSDEC-approved Remedial Action Work Plan (RAWP). Documentation

of the remediation, which included in-situ groundwater treatment to address residual chlorinated volatile organic compound (CVOC) impacts, is included in the FER. An NYSDEC-approved Environmental Easement referencing the SMP has been executed. The Certificate of Completion was issued on December 9, 2016. The sixth and seventh quarterly groundwater monitoring events discussed herein are required to document the effectiveness of the remedy as specified by the SMP.

Groundwater Treatment

In-situ enhanced bioremediation (ISEB) in conjunction with in-situ chemical reduction (ISCR) was chosen as the remedy to treat residual CVOC-impacted groundwater. ISCR using enhanced zero valent iron (EZVI) was the primary remedy. To enhance its performance, an ISEB solution consisting of the bioaugmentation culture SDC-9™ and emulsified vegetable oil (EVO) was mixed with EZVI. Three targeted areas, varying by injection depths and substrate concentrations, were treated. The injection volumes were determined by the number of injection points and the injection interval. The EZVI and ISEB mixture was injected using a Geoprobe® direct-push drill rig. About 9,615 gallons of the mixture were injected between July 16 and August 5, 2015. Injection point locations and target treatment areas are documented in the FER and summarized in Figure 2.

Biotic and Abiotic Degradation Technologies

CVOCs, including PCE, are electron acceptors and their degradation via the biotic or abiotic pathway requires electron donors. Naturally occurring electron acceptors can compete with CVOCs for available electrons; therefore, an understanding of geochemical conditions is critical in understanding whether CVOC degradation can be interfered with by the competing electron acceptors. The most common electron acceptors in groundwater include oxygen, nitrate, iron (III), and sulfate. In general, the abiotic degradation pathway (β -elimination) is mainly affected by the levels of dissolved oxygen and nitrate, but is not impacted by the levels of iron (III) and sulfate. In contrast, the biotic pathway (reductive dechlorination) is interfered with by all of the aforementioned electron acceptors. Effective reductive dechlorination via the biotic pathway generally occurs when all natural electron acceptors are either at naturally low levels or eliminated; focusing electron donor demands from carbon substrate (i.e., emulsified vegetable oil) and EZVI by eliminating competing naturally occurring electron acceptors.

EZVI can achieve fast reduction and maintain longevity of reactivity by enhancing two reduction pathways: biotic as reductive dechlorination and abiotic as β -elimination.

Reductive Dechlorination (Biotic)

The chlorinated solvent biodegradation pathway is reductive dechlorination, which involves the microbial degradation of PCE to its daughter products trichloroethylene (TCE), cis-1,2-dichloroethylene, and then to vinyl chloride. The end products of reductive dechlorination are the innocuous compounds, ethene and ethane. The common limiting factors for reductive dechlorination are the availability of organic substrates (electron donors) and the microbial strain dehalococcoides (DHC), which are the only microbial strains capable of complete dechlorination to ethene and ethane.

β -elimination (Abiotic)

β -elimination is the abiotic pathway, through which CVOCs are degraded to acetylene, instead of ethene or ethane. Daughter products that can be more toxic than the parent compounds, such as vinyl chloride, would not be generated via the abiotic pathway. In general, abiotic degradation is mainly enhanced by ZVI, and is faster and more effective than reductive dechlorination.

Groundwater Sampling

Five performance monitoring wells (MW12 through MW16) were installed to monitor groundwater conditions following injections. A Monitoring Well Location Map is included as Figure 3. Details of the well installation and development are included in the FER. In addition, two off-site wells (MW05 and MW07) installed during the remedial investigation (RI) were also used to evaluate up-gradient groundwater conditions and monitor the performance of the in-situ groundwater remedy.

Groundwater monitoring to assess CVOC concentrations in groundwater will continue, as determined by the NYSDEC in consultation with New York State Department of Health (NYSDOH), until residual groundwater concentrations are below the TOGS AWQS or are asymptotic at an acceptable level over an extended period. As stated in the June 3, 2015 NYSDEC-approved In-situ CVOC Groundwater Treatment Plan, it is anticipated the following remedial objectives can be attained within two years following the injection event:

- Reduction of 90% of contaminant concentrations in monitoring wells
- Reduction of 90% contaminant mass in the groundwater plume on site

Table 1 presents the analytical results of pre-injection groundwater sampling performed on-and off-site. The three initial post-injection groundwater monitoring events were conducted in November 2015 (quarterly monitoring event Q1), February 2016 (Q2), and May 2016 (Q3) and were summarized in the FER. Quarterly monitoring events conducted in September 2016 (Q4)

and December 2016 (Q5) were summarized in the June 22, 2017 Fourth and Fifth Quarterly Groundwater Monitoring Events Report. This groundwater monitoring report presents the findings from the sixth and seventh post-injection groundwater monitoring events (Q6 and Q7).

Sixth Quarterly Groundwater Monitoring Event

Groundwater monitoring wells MW05, MW07 and MW12 through MW16 were gauged and sampled on March 28 and 29, 2017. Prior to sampling, Langan visually inspected the groundwater monitoring wells to confirm there was no evidence of tampering or damage, recorded an initial headspace volatile organic compound (VOC) reading (recorded in parts per million [ppm]), and measured the depth to groundwater at each monitoring well using a Solinst oil/water interface probe. Consistent with previous monitoring events, all wells were free of non-aqueous phase liquid (NAPL).

Prior to collecting groundwater samples, each well was purged using a down-hole Monsoon® pump and dedicated, disposable polyethylene tubing. During purging, the turbidity, pH, temperature, conductivity, oxidation-reduction potential, and dissolved oxygen were monitored using a Horiba U-52 water quality meter with a flow-through cell. Groundwater was purged until water quality parameters were stable and the turbidity was below 50 nephelometric turbidity units (MW16) or the well was dry (MW05, MW07, MW12, MW13, MW14, and MW15). Measurements were recorded on Langan field sampling forms, which are included in Attachment A. A table summarizing the initial headspace reading and the initial groundwater elevation measurement at each well is summarized below.

Well Number	Headspace Reading (ppm)	Initial Water Elevation (feet [NAVD88 ¹])
MW05	0.0	25.12
MW07	0.0	25.37
MW12	1.0	24.01
MW13	6.6	17.5
MW14	0.0	19.3
MW15	0.0	22.65
MW16	0.1	18.4

¹ NAVD88 = North American Vertical Datum

After purging was complete and the groundwater level had returned to its pre-purge level at wells MW05, MW07, MW12, MW13, MW14, and MW15, a groundwater sample was collected using either a dedicated disposable polyethylene bailer (for low recharge wells MW12, MW13, MW14 and MW15) or the pump and dedicated tubing (MW05, MW07, and MW16). Groundwater samples were collected into laboratory-prepared containers, tightly sealed, uniquely labeled, stored on ice for transport under standard chain-of-custody procedures and analyzed by York Analytical Laboratories (York) in Stratford, Connecticut. Two trip blanks (one

per sampling day), one field blank, one duplicate sample, and a matrix spike/matrix spike duplicate set were included for quality assurance/quality control (QA/QC) purposes. The trip blanks were analyzed for VOCs. The field blank and the groundwater samples (including the duplicate sample) were analyzed for target Compound List (TCL) VOCs, ethane, ethylene, methane, total and dissolved iron, total organic carbon (TOC), sulfate, chloride, alkalinity, salinity, and nitrite. Groundwater samples were also collected for analysis of biological parameters including dehalococcoides (DHC) organism/gene by Microbial Insights, an environmental biotechnology testing lab in Knoxville, Tennessee.

Seventh Quarterly Groundwater Monitoring Event

Langan gauged and sampled groundwater monitoring wells MW05, MW07, and MW12 through MW16 on July 10, 2017. Prior to sampling, Langan visually inspected the groundwater monitoring wells to confirm there was no evidence of tampering or damage, recorded an initial headspace VOC reading, and measured the depth to groundwater at each well using a Solinst oil/water interface probe. Prior to collecting groundwater samples, all wells were purged using a down-hole Monsoon® pump and dedicated, disposable polyethylene tubing. During purging, the turbidity, pH, temperature, conductivity, oxidation-reduction potential, and dissolved oxygen were monitored using a Horiba U-52 water quality meter with a flow-through cell. Groundwater was purged until water quality parameters were stable and the turbidity was below 50 nephelometric turbidity units (MW16), or until the well was dry (MW05, MW07, MW12, MW13, MW14, and MW15). Measurements were recorded on Langan field sampling forms, which are included in Attachment A. A table summarizing the initial headspace reading, the initial groundwater elevation measurement, and the purged volume at each well is summarized below.

Well Number	Headspace Reading (ppm)	Initial Water Elevation (feet)
MW05	0.0	25.1
MW07	0.1	26.0
MW12	0.2	24.25
MW13	2.7	18.89
MW14	0.1	20.77
MW15	0.2	24.91
MW16	0.3	20.41

After purging was complete and the groundwater level had returned to its pre-purge level at wells MW05, MW07, MW12, MW13, MW14, and MW15, a groundwater sample was collected using either a dedicated disposable polyethylene bailer (MW07, MW12, MW13, MW14, and MW15) or the pump and dedicated tubing (MW05 and MW16). Groundwater samples were collected into laboratory-prepared containers, tightly sealed, uniquely labeled, stored on ice for transport under standard chain-of-custody procedures and analyzed by York. One trip blank,

one field blank, one duplicate sample, and a matrix spike/matrix spike duplicate set were included for QA/QC purposes. The trip blank was analyzed for TCL VOCs. The field blank and the groundwater samples (including the duplicate sample) were analyzed for VOCs, total and dissolved iron, and sulfate. Analyses of additional parameters was discontinued following approval from the NYSDEC.

Quality Assurance/Quality Control

The duplicate sample results are presented in Tables 2 and 3 alongside the parent samples. Analytical results for the field blanks and trip blank samples are summarized in Table 4.

The field blank samples were collected to determine the effectiveness of the laboratory decontamination procedures for laboratory-supplied bottleware and to identify the presence of any ambient contamination at the field site. The field blanks were collected by pouring deionized water provided by the laboratory directly into sample bottleware.

Coded field duplicates were collected to evaluate the precision of the analytical methods and uniformity of the sample matrix. The duplicates were collected from the same material as the primary sample by splitting the volume of sample collected in the field into two sample containers. The samples are termed "coded" because they were labeled in such a manner that the laboratory would not be able to determine the parent sample associated with the duplicate samples. This coding serves to eliminate possible bias that could arise during lab analysis. The field duplicates were analyzed for the same parameters as their parent samples.

The trip blank samples were collected to assess the potential for contamination of the sample containers and samples during the trip from the laboratory, to the field, and back to the laboratory for analysis. Trip blanks contain about 40 milliliters of acidic water (doped with hydrochloric acid) in vials sealed by the laboratory when the empty sample containers are shipped to the field, and are unsealed and analyzed by the laboratory when a sample shipment is received from the field.

The field duplicate results closely matched the results from their parent samples, thereby demonstrating the accuracy of the analytical methods, with the exception of sulfate and dissolved iron, which did not meet the precision criteria in the seventh quarterly monitoring event. The field and trip blank results indicated no substantial cross-contamination issues arising from ambient conditions during sampling and during sample transport, respectively. Matrix spike/matrix spike duplicate recoveries were evaluated as part of the third-party data validation.

Validation Overview

Third-party data validation was performed in accordance with United States Environmental Protection Agency (USEPA) Region II Standard Operating Procedure (SOP) #HW-34, "Trace Volatile Data Validation" (February 19, 2013, Revision 3). Validation includes reconstruction of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator. The data was found to be valid and usable for its intended application. Data Usability Summary Reports are included in Attachment B.

Groundwater Monitoring Analytical Results

VOCs

Laboratory analytical data was compared to the NYSDEC Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards (AWQS) for Class GA water. Analytical detections for pre- and post-remediation are presented in Tables 1 and 2. The laboratory analytical reports from the sixth and seventh quarterly monitoring events are included as Attachment C. A summary of VOC compounds exceeding the AWQS criteria and the detected concentrations (shown in parentheses) is presented below:

Sixth Quarterly Groundwater Sampling Event

- MW05
 - PCE (17 micrograms per liter [µg/l])
- MW07
 - PCE (32 µg/l)
- MW12
 - acetone (1,800 µg/l)
 - methyl ethyl ketone (51 µg/l)
- MW13
 - acetone (210 µg/l)
 - cis-1,2-dichloroethylene (16 µg/l)
 - vinyl chloride (15 µg/l)
- MW14
 - cis-1,2-dichloroethylene (30 µg/l)
 - PCE (19 µg/l)
 - TCE (6.4 µg/l)
- MW15
 - PCE (21 µg/l)
- MW16/MW16 Duplicate
 - cis-1,2-dichloroethylene (25/23 µg/l)
 - PCE (33/40 µg/l)

Seventh Quarterly Groundwater Sampling Event

- MW05
 - PCE (10 µg/l)
- MW07
 - PCE (20 µg/l)
- MW12
 - acetone (380 µg/l)
- MW13
 - cis-1,2-dichloroethylene (31 µg/l)
 - vinyl chloride (10 µg/l)
- MW14
 - cis-1,2-dichloroethylene (44 µg/l)
 - PCE (30 µg/l)
 - TCE (11 µg/l)
- MW15
 - PCE (16 µg/l)
- MW16/MW16 Duplicate
 - cis-1,2-dichloroethylene (10/11 µg/l)
 - PCE (25/15 µg/l)

CVOCs detected above the AWQS in samples collected during one or more of the quarterly monitoring events include cis-1,2-dichloroethylene, PCE, TCE, and vinyl chloride. CVOC results from the sixth and seventh quarterly monitoring events are summarized in Figure 3.

PCE, the target parent compound, was detected above the AWQS in samples collected during one or more quarterly monitoring events at each of the seven wells. The first quarterly monitoring event occurred six months following the in-situ injection in August 2015. Figure 4 summarizes PCE concentrations detected in groundwater prior to remediation and during each performance monitoring event. In relation to pre-remediation concentrations, concentrations of PCE decreased by up to four orders of magnitude at the source area (MW12), up to two orders of magnitude at the transitional area (MW13), while PCE concentrations did not change significantly at the plume perimeter area (MW05, MW07, MW14, MW15, and MW16) except at MW14, where concentrations decreased by up to an order of magnitude. By the fifth quarterly sampling event, PCE was reduced to below the AWQS within the former source area (MW12). The PCE concentration in the transitional area was also reduced to below the AWQS by the third quarterly event and remained below the AWQS during the sixth and seventh quarterly monitoring events. PCE reductions were detected at MW14 and MW16, plume perimeter wells, during each of the seven monitoring events, with the lowest PCE concentrations being detected in the sixth of seven quarterly monitoring events. Notable PCE reductions were not detected at the other well at the plume perimeter (MW15) or off-site, up-gradient wells (MW5 and MW7).

TCE was most likely produced through biodegradation of PCE at this site. TCE was detected above the AWQS value in samples collected during one or more quarterly monitoring events at wells MW12, MW13, and MW14. TCE has been detected above the AWQS in only one well (MW14) since the third monitoring event.

The CVOC cis-1,2-dichloroethylene (cis-1,2-DCE), a daughter product of PCE and TCE biodegradation, was detected above the AWQS value in samples collected during one or more quarterly monitoring events at wells MW12, MW13, MW14, and MW16. As biodegradation of PCE and TCE occurs, the concentration of cis-1,2-DCE is expected to increase while PCE and TCE concentrations decrease. When the parent compounds are eliminated, the concentration of cis-1,2-DCE is expected to decrease. If PCE is degraded via an abiotic pathway, the daughter product cis-1,2-DCE will not be produced. During the seven monitoring events, the concentration of cis-1,2-DCE in MW12 (source area), MW13 (transitional area), and MW16 (plume perimeter) demonstrated the typical trend influenced by biodegradation. The cis-1,2-DCE concentration increased to a greater degree at MW13 than in MW12. By the seventh quarterly sampling event, cis-1,2-DCE was detected above its AWQS at wells MW13, MW14, and MW16.

Vinyl chloride is the last CVOC produced via PCE biodegradation. Vinyl chloride was detected above the AWQS in samples collected during one or more quarterly monitoring events at wells MW12 and MW13. Similar to the trend of cis-1,2-DCE concentrations, as PCE and TCE biodegrade, the vinyl chloride concentration is expected to increase before eventually decreasing as the cis-1,2-DCE concentration is reduced via biodegradation. The impact of biodegradation was more significant in MW13 than MW12. By the seventh quarterly sampling event, vinyl chloride was only detected above the AWQS in MW13 at 10 µg/l.

Compared with the pre-remediation concentration, total CVOCs generally decreased significantly at the source area (99.5% reduction) and transitional area (90% reduction). Continuous reductions of CVOCs occurred after the in-situ injection. Between the first and seventh monitoring events, the total concentration of CVOCs decreased at MW12, MW13, MW14, and MW16 (from 202.25 to 5.71 µg/l, 308.6 to 36.8 µg/l, 128.47 to 85 µg/l and 113.5 to 32.78 µg/l, respectively) and increased at MW15 (5.7 to 16.31 µg/l). The concentration of total CVOCs detected at off-site well MW05 prior to the injections ranged from 38.76 to 46.8 µg/l, and only marginally decreased to 30.71 µg/l by the seventh quarterly monitoring event. CVOCs were detected in off-site well MW07 at a concentration of 11.51 µg/l prior to the injections, and by the seventh quarterly monitoring event the concentration was 20 µg/l.

The only other VOCs that exceeded the AWQS were methyl ethyl ketone and acetone. Methyl ethyl ketone was detected in monitoring well MW12 during the sixth quarter at a concentration of 51 µg/l, just above the AWQS of 50 µg/l. Methyl ethyl ketone was detected at this well at a maximum concentration of 240 µg/l during the first monitoring event. Concentrations have shown an overall reduction to a concentration of 18 µg/l during the seventh quarterly monitoring event. Acetone is a degradation by-product of naturally-occurring organic or injected organic substrate (EVO). The detection of acetone is strong evidence for organic substrate distribution and biodegradation occurrence. Acetone is readily consumed by the microbes and will not accumulate in the subsurface. Acetone contributed to the total VOC concentrations in MW12, MW13, and MW16 during the first three monitoring events. Because acetone concentrations decreased significantly by the seventh monitoring event, the total VOC concentration also decreased significantly at MW12, MW13, MW14, and MW16 (from 21,443.5 to 404.87 µg/l, 549.06 to 57.36 µg/l, 130.4 to 86.58 µg/l, and 118.4 to 34.1 µg/l, respectively). The total VOC concentration did not change substantially at MW15 (from 5.99 to 16.89 µg/l).

Summary of Contaminant Concentration Trends

The contaminant concentration trends of monitoring wells in each area vary based upon the well locations.

- Source Area: Well MW08, which was an abandoned well located near the source area, exhibited PCE concentrations of more than 2,000 µg/L prior to the injection. At MW12

(the nearest replacement well), PCE was reduced to concentrations at or below the detection limit within six months after the injection while the daughter products (cis-1,2-dichloroethylene and vinyl chloride) were initially observed but have been reduced to concentrations below the AWQS. Acetone, another compound detected above the AWQS, is a fermentation/biodegradation product of the EVO and will be rapidly consumed by the indigenous subsurface microbes. Elevated acetone concentrations were detected in November 2015 during the first performance monitoring event and have consistently decreased during the following four monitoring events.

- Transitional Area: Well MW03, which was abandoned during building construction, exhibited a PCE concentration of 270 µg/L and a total CVOC concentration of 290 µg/L prior to injection. At MW13 (the nearest replacement well), the parent compounds PCE and TCE have generally degraded to concentrations below the AWQS since the third quarterly monitoring event. The PCE and TCE daughter products cis-1,2-dichloroethylene and vinyl chloride have remained generally consistent to concentrations prior to treatment. Acetone concentrations peaked during the second monitoring event in February 2016 and decreased during the following five events.
- Plume Perimeter Area: Well MW02, which was abandoned during the construction, exhibited a PCE concentration of 160 µg/L before the injection. Replacement wells MW14 and MW16 showed reductions of PCE (to 30 and 20 µg/L, respectively, or roughly 85%) by the seventh quarterly monitoring event. Compared to the first quarterly monitoring event, the concentration of cis-1,2-dichloroethylene in MW14 increased in the second through fourth quarterly monitoring events and decreased in the sixth and seventh quarterly monitoring events. Concentrations of cis-1,2-dichloroethylene and acetone at MW16 were greatest during the second quarterly monitoring event and generally decreased over the following five monitoring events.
- Off-site Area: Concentrations of PCE, VOCs, and CVOCs have remained generally unchanged. Acetone was detected in a sample collected from MW05 before the injection and detected in the sample collected from MW07 during the fourth quarterly monitoring event. Both concentrations were below the AWQS.

Geochemical Conditions

Geochemical parameters, including pH, oxidation-reduction potential, and dissolved oxygen (DO), were field documented at each monitoring well during purging (Attachment A). Additional geochemical parameters were analyzed by the laboratory. The analytical laboratory reports from the sixth and seventh quarterly monitoring events are included in Attachment C and the analytical results are summarized in Table 3. The results and conclusions of the geochemical analyses are summarized as follows:

- DO and ORP indicate that the subsurface conditions were changed from aerobic-oxidative to anaerobic-reductive conditions at the source area and the transitional areas. The plume perimeter transitioned to a more anaerobic-reductive condition during the second and third events. No change was apparent in the upgradient, off-site area.
- Dissolved methane increases when organic carbon is present. Methane was not detected in off-site wells MW05 and MW07, but was detected at various concentrations within or near the treatment area (MW12, MW13, and MW16). Ethene and ethane are produced as the innocuous end products of reductive dechlorination (biodegradation pathway of CVOCs). Ethene and ethane were detected in MW13, suggesting that complete reductive dechlorination occurred. Furthermore, the absence of ethene and ethane detections at MW12 suggests that the abiotic degradation of CVOC through β -elimination could be the main degradation path at the source area.
- Testing for both nitrate and sulfate was performed to identify potential competition with the CVOC biodegradation pathway. With the exception of MW12 and MW13, both nitrate and sulfate were detected in all monitoring wells, suggesting potential interference by these electron acceptors. The absence of nitrate and sulfate in the source area (i.e., MW12 and MW13) is the likely result of abiotic degradation resulting from the EZVI application.
- The concentration of dissolved iron can be used as an indicator of treatment efficacy (i.e., an increase in dissolved iron indicates effective EZVI treatment). Before injection, the maximum concentrations of total and dissolved iron were detected at 29.3 mg/L at MW8 and 0.14 mg/L at MW11, respectively. EZVI increased iron levels both on-site and off-site after treatment, with the greatest total and dissolved iron concentrations detected at MW12 (76.9 mg/L and 32.5 mg/L, respectively). Concentrations of both total and dissolved iron peaked at the third and second sampling events, respectively. MW13 showed a trend of increasing total and dissolved iron concentrations. Other on-site and off-site wells also showed increases of total and dissolved iron, suggesting a distribution of EZVI across the site.
- TOC can serve as direct evidence of EVO distribution. TOC levels were detected at a maximum concentration of 3.6 mg/L before the injection with increasing TOC levels (more than 100 mg/L) detected in MW12 and MW13 during the performance monitoring events. During this monitoring event, TOC levels in MW16 and other on-site monitoring wells (MW14, MW15) decreased to near the background levels (near 4 mg/L) within 1.5 years of the injection, which will not support continued biodegradation.

Biological Conditions

DHC is the bacterial strain that can reduce CVOCs to the harmless end products (ethene and ethane). DHC levels were analyzed by Microbial Insights during the March sampling event, but discontinued thereafter following approval by the NYSDEC. The analytical laboratory reports are included in Attachment C and the analytical results are summarized in Table 3. DHC levels serve as indicators for the level of microbial activity. During the pre-design investigation, DHC levels were below or just above the detection limit of 1 cell per milliliter (cell/ml). The following summarizes DHC concentrations following treatment:

- At the source and transitional areas, DHC levels in wells MW12 and MW13 showed increases to more than 10^4 and 10^5 cell/ml during the third sampling event. Typically, a DHC level of 10^4 cell/ml indicates effective biodegradation and a DHC level at 10^5 cell/ml indicates rapid biodegradation. Between the third and sixth quarterly monitoring events, DHC levels fluctuated but generally maintained levels near 10^4 cells/ml at MW12, with DHC levels peaking to more than 10^6 cells/ml during the fifth quarterly monitoring event at MW13. The greater increase in MW13, in conjunction with geochemical condition and contaminant trends, suggests that more microbial activity has occurred at this well. Contaminant reduction in MW13 was likely a result of biodegradation.
- The highest DHC level at MW16 was more than 10^2 cells/ml in September 2016, one year after injection. By the fifth sampling event, the DHC level at this well was above 10 cells/ml, and by the sixth quarterly monitoring event the level was about 1 cell/ml. The data suggests that biodegradation was stimulated during the first year after injection, but never reached levels sufficient for effective biodegradation.
- Wells MW05, MW07, MW14, and MW15 showed DHC levels below 10 cells/ml in most monitoring events, suggesting that reductive dechlorination via biodegradation was never effectively stimulated.

Findings

Significant contaminant reduction has been achieved at the site, with the greatest reduction detected at the source area, where the ZVI dosage was 10 grams of iron per liter of pore water (g/L), while fewer reductions were detected at the plume perimeter, where ZVI dosage was 2.5 g/L. Based on an evaluation of the VOC concentrations and geochemical and biological parameters, the ZVI dosage appears to have contributed significantly to the degradation pathways and efficiency.

- The degradation at the source area was mainly via β -elimination pathway, because daughter products were not produced and moderate levels of DHC were also detected. β -elimination, being the abiotic degradation pathway mediated by ZVI, is believed to be a more rapid and efficient degradation pathway than biodegradation. The most reducing conditions were also observed at the source area. Meanwhile, sulfate and nitrate were

depleted and iron concentration spiked at the source area, indicating the β -elimination pathway was effectively enhanced at the source area.

- At the transitional area, CVOCs were reduced to less than 50 $\mu\text{g/L}$ mainly via bio-mediated pathways that produced primarily cis-1,2-dichlorethene as the daughter product. The DHC population increased to more than 10^6 cells/ml, indicating effective bioremediation. The overall decrease in sulfate concentrations and increase in dissolved iron concentrations were observed when CVOCs were reduced, indicating reductive dechlorination was the main degradation pathway in this area.
- At the plume perimeter area, a moderate reduction of PCE concentration and production of cis-1,2-DCE was detected. A lack of DHC in this area suggests that reductive dechlorination was not effectively enhanced by the microbial populations. Increases in dissolved iron concentrations and decreases in sulfate concentrations were measured. Therefore, as the geochemical parameters were being converted to more favorable conditions for reductive dechlorination, CVOC degradation is expected to be initiated.

Based on the contaminant trends and geochemical conditions, continued reductions of contaminants are anticipated. The reduction of CVOCs via biotic and abiotic pathways could continue to remove contaminant mass and control contaminant migration; however, the two-year remedial action objective of a 90% reduction of contaminant concentration has been met; therefore no further groundwater monitoring is recommended.

Sincerely,

**Langan Engineering, Environmental, Surveying and
Landscape Architecture, D.P.C**

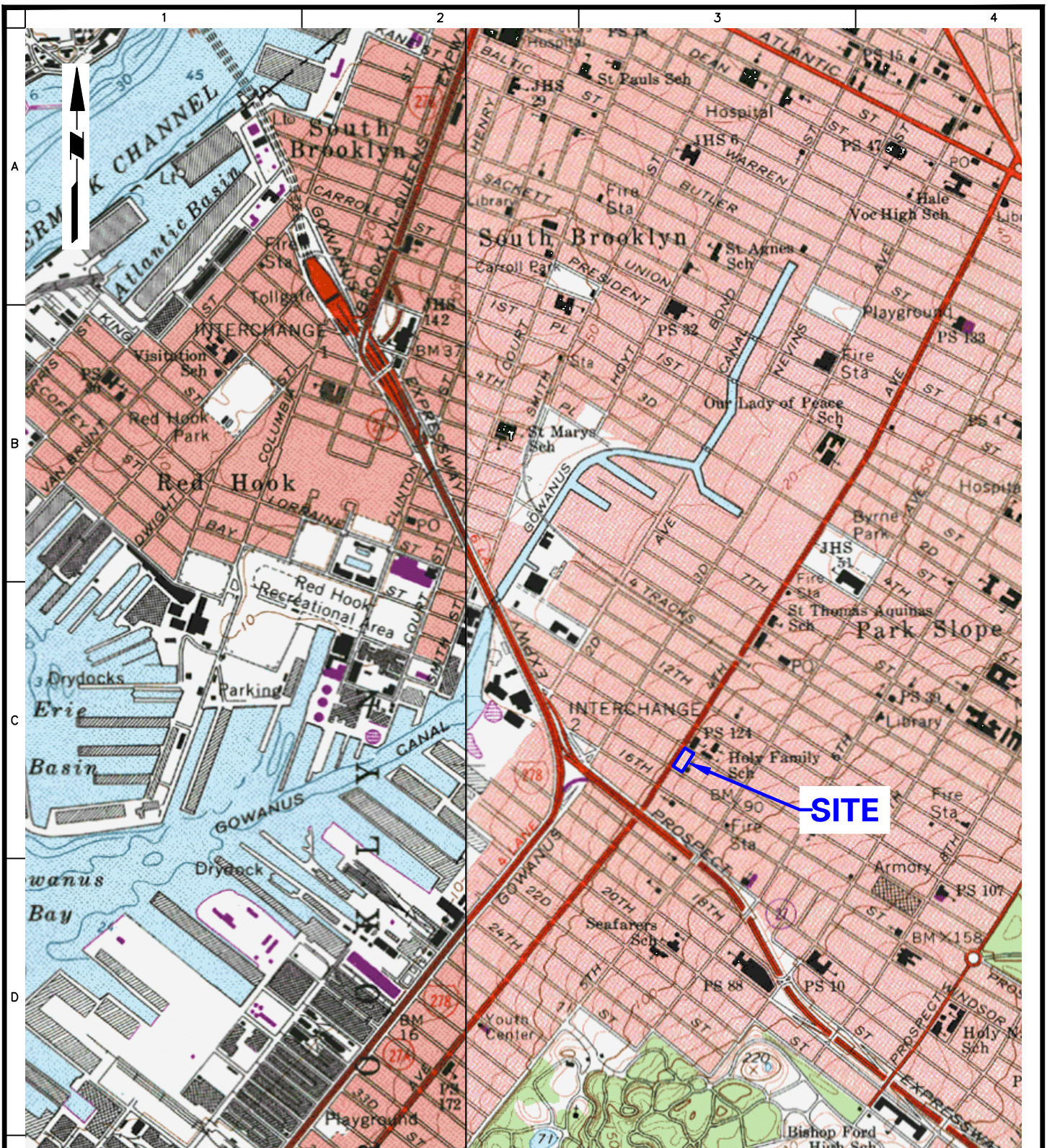
Jason J. Hayes, P.E., LEED AP
Principal/Vice President

Enclosure(s):

Figure 1	Site Location Map
Figure 2	Injection Point Locations and Volumes
Figure 3	Monitoring Well Locations and Results
Figure 4	Baseline and Performance Monitoring PCE Concentrations
Table 1	Groundwater Sample Detection Summary – Remedial Investigation Report
Table 2	Sixth and Seventh Quarterly Groundwater Monitoring Event Results (VOCs)
Table 3	Sixth and Seventh Quarterly Groundwater Monitoring Results (Geochemical and Biological Parameters)
Table 4	Sixth and Seventh Quarterly Groundwater Monitoring Results – QA/QC Samples (VOCs and Geochemical Parameters)
Attachment A	Groundwater Sampling Forms
Attachment B	Data Usability Report
Attachment C	Laboratory Analytical Reports, Chain-of-Custody and Certifications

cc: Partners VII/535 Fourth Owner LLC

FIGURES



SOURCE: USGS 7.5-MINUTE BROOKLYN AND JERSEY CITY TOPOGRAPHIC QUADRANGLE MAPS, DATED 1967, REVISED 1979

LANGAN

21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001

T: 212.479.5400 F: 212.479.5444 www.langan.com

Langan Engineering, Environmental, Surveying and
Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

535 4TH AVENUE

BLOCK No. 1041, LOT No. 1
BROOKLYN

KINGS

NEW YORK

Figure Title

**SITE LOCATION
MAP**

Project No.
170264501

Date
9/30/2016

Scale
1"=1,500'

Drawn By
AT

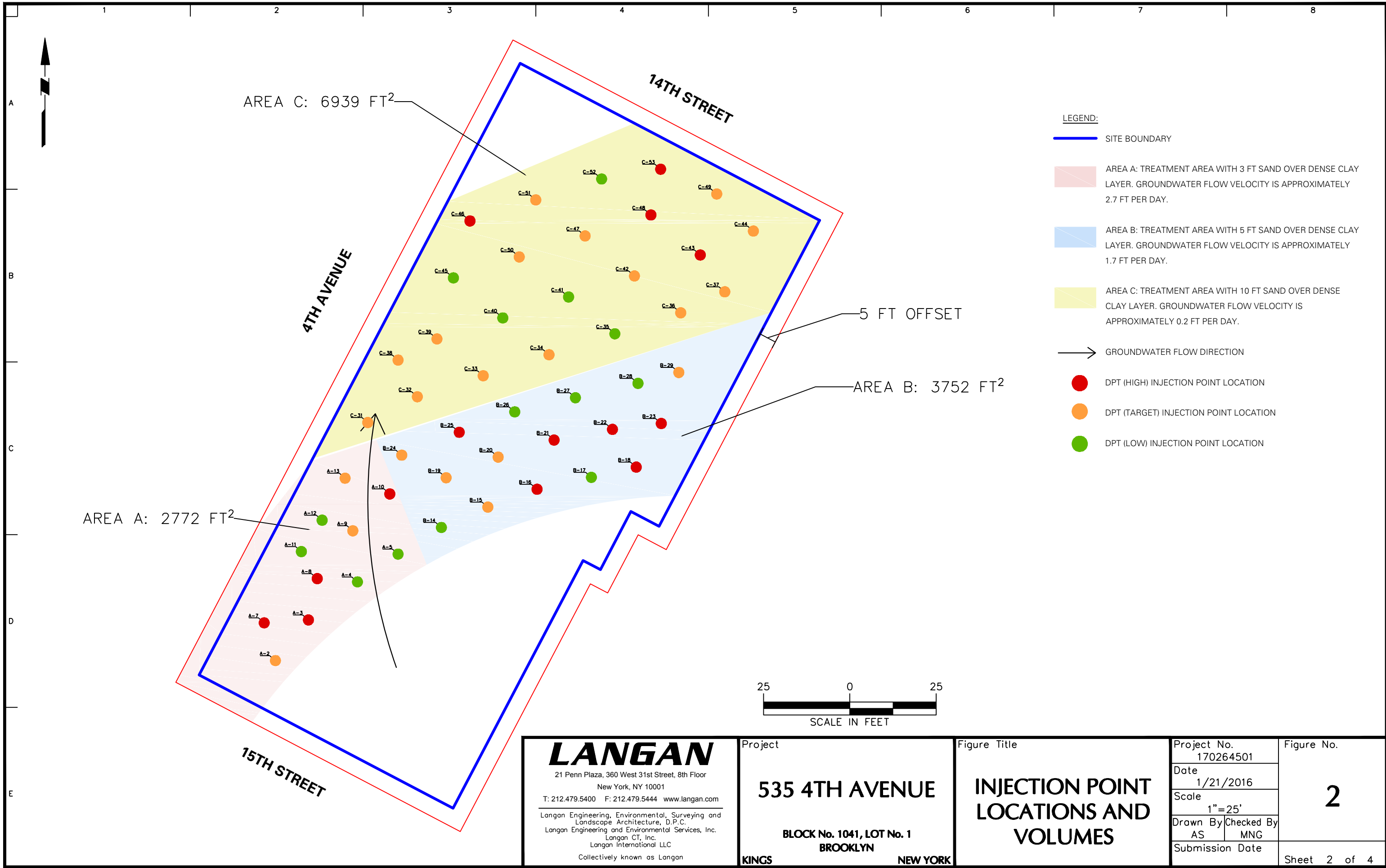
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Submission Date
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Figure No.

1

Sheet 1 of 4

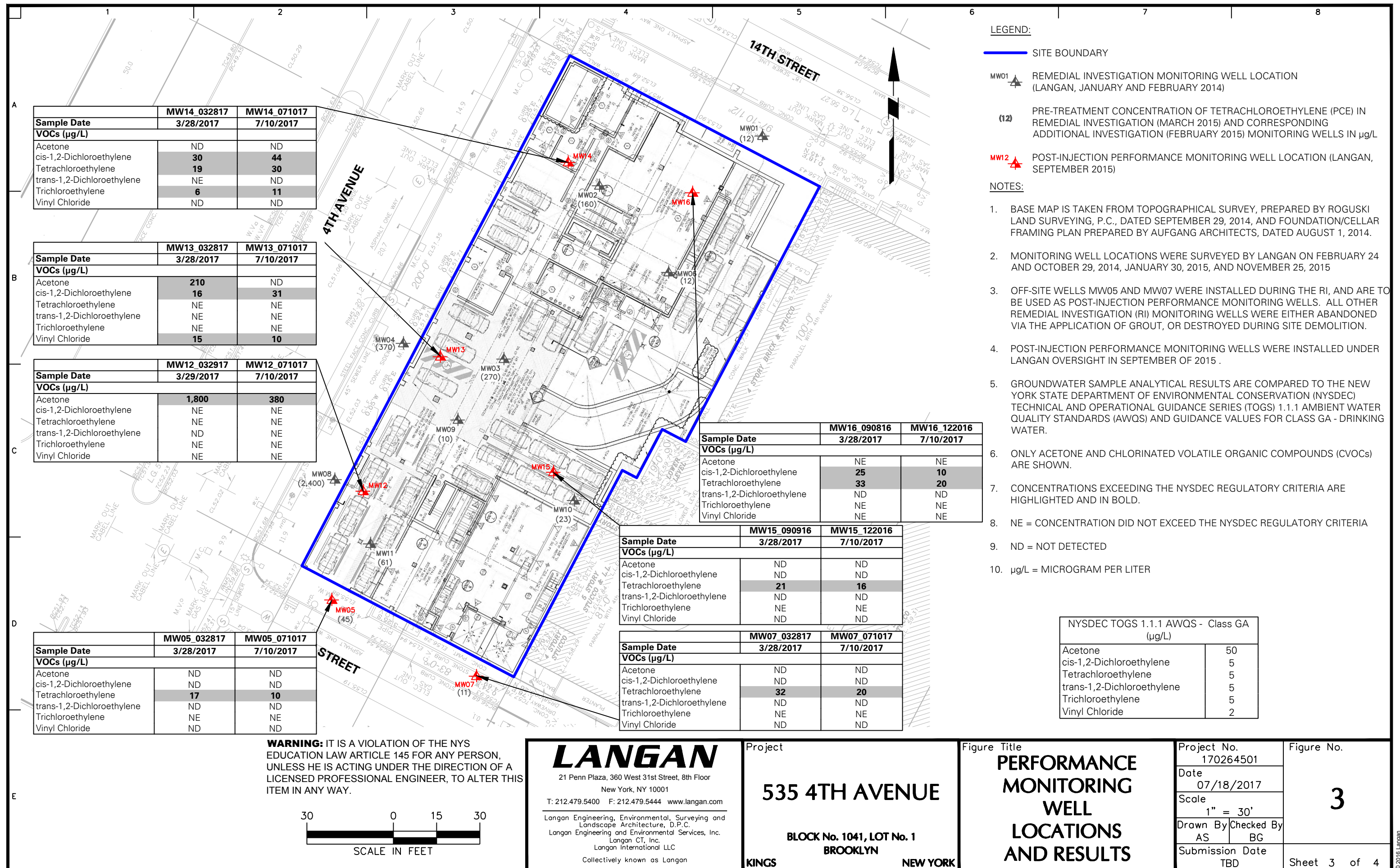


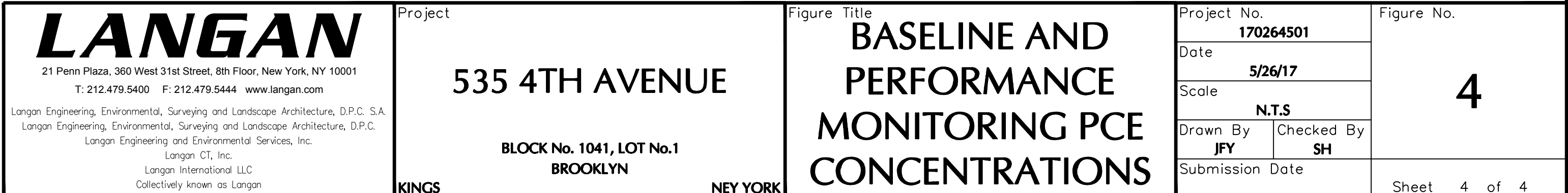
LANGAN
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
T: 212.479.5400 F: 212.479.5444 www.langan.com
Langan Engineering, Environmental, Surveying and
Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project
535 4TH AVENUE
BLOCK No. 1041, LOT No. 1
BROOKLYN
KINGS NEW YORK

Figure Title
**INJECTION POINT
LOCATIONS AND
VOLUMES**

Project No. 170264501	Figure No. 2
Date 1/21/2016	
Scale 1"=25'	
Drawn By AS	Checked By MNG
Submission Date	Sheet 2 of 4





NOTES:

1. MONITORING WELL LOCATIONS WERE SURVEYED BY LANGAN ON FEBRUARY 24 AND OCTOBER 29, 2014, JANUARY 30, 2015, AND NOVEMBER 25, 2015
2. REMEDIAL INVESTIGATION (RI) MONITORING WELLS WERE EITHER ABANDONED VIA THE APPLICATION OF GROUT, OR DESTROYED DURING SITE DEMOLITION.
3. MW-05 AND MW-07 WERE INSTALLED DURING THE RI, AND ARE ALSO USED AS POST-INJECTION PERFORMANCE MONITORING WELLS.
4. POST-INJECTION PERFORMANCE MONITORING WELLS WERE INSTALLED UNDER LANGAN OVERSIGHT IN SEPTEMBER OF 2015 .
5. CONTOUR LINES REPRESENT CONCENTRATIONS OF TETRACHLOROETHYLENE (PCE) IN GROUNDWATER IN MICROGRAMS PER LITER (µg/L).
6. QUARTERS REFER TO THE QUARTER IN WHICH THE PERFORMANCE SAMPLING WAS CONDUCTED.

TABLES

Table 1
Initial Remedial Investigation Groundwater Sample Detection Summary
535 4th Avenue
Brooklyn, New York 11215
Langan Project No. 170264501

Well ID		MW01		MW02		MW03		MW04			MW05		MW06		MW07	MW08	MW09	MW10	MW11
Sample ID	NYSDEC TOGS Standards and Guidance Values - GA	MW01_021114 2/11/2014	MW01_100914 10/9/2014	MW02_021114 2/11/2014	MW02_100814 10/8/2014	MW03_021014 2/10/2014	MW03_100814 10/8/2014	MW04_021114 2/11/2014	MW04_100814 10/8/2014	GWDUP01_100814 10/8/2014	MW05_021114 2/11/2014	MW05_100914 10/9/2014	MW06_021014 2/10/2014	MW06_100914 10/9/2014	MW07_110214 11/2/2014	MW08_103114 10/31/2014	MW09_110214 11/2/2014	MW10_103114 10/31/2014	MW11_012915 1/29/2015
Lab Sample ID		14B0261-03	14J0446-06	14B0261-01	14J0446-02	14B0220-02	14J0446-01	14B0261-02	14J0446-03	14J0446-04	14B0261-04	14J0446-05	14B0220-01	14J0446-07	14K0070-02	14K0021-02	14K0070-01	14K0021-01	15A0884-01
Volatile Organic Compounds (µg/L)																			
1,2-Dibromo-3-chloropropane	0.04	NT	0.80 U	NT	4 U	NT	4 U	NT	4 U	4 U	NT	0.80 U	NT	0.80 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloroethane	0.6	0.20 U	0.20 U	0.20 U	1 U	0.20 U	1 U	0.20 U	1 U	1 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	3.50	0.20 U	0.20 U
1,2-Dichloropropane	1	NT	0.20 U	NT	1 U	NT	1 U	NT	1 U	1 U	NT	0.20 U	NT	0.20 U	0.20 U	0.20 U	0.23 J	0.20 U	0.20 U
1,4-Dichlorobenzene	3	0.20 U	0.20 U	0.20 U	1 U	0.20 U	1 U	0.20 U	1 U	1 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	1.50 UJ	0.20 UJ	0.20 UJ	0.20 U
4-Methyl-2-pentanone	~	NT	0.20 U	NT	1 U	NT	1 U	NT	1 U	1 U	NT	0.20 U	NT	0.20 U	0.20 U	0.20 U	0.28 J	0.20 U	0.20 U
Acetone	50	9.20	1 U	33	5 U	1.70 J	5 U	1 U	10.00	8 U	9.80	1 U	1 U	1 U	4.20 U	1 U	11 U	1 UJ	1 U
Benzene	1	0.20 U	0.20 U	0.20 U	1 U	0.20 U	1 U	0.20 U	1 U	1 U	0.20 U	0.20 U	0.20 U	0.20 U	0.30 J	0.21 J	17	0.20 U	0.20 U
Chlorobenzene	5	0.20 U	0.20 U	0.20 U	1 U	0.20 U	1 U	0.20 U	1 U	1 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.24 J	0.35 J	0.20 U	0.20 U
Chloroform	7	0.30 J	0.23 J	0.41 J	1 U	0.41 J	1 U	0.54	1 U	1 U	0.27 J	0.20 U	0.41 J	0.28 J	0.45 J	2.50	1.20	0.22 J	0.20 U
cis-1,2-Dichloroethylene	5	0.20 U	0.20 U	2.40	10 D	22	16 D	60 D	55 D	56 D	0.66	0.44 J	0.20 U	0.20 U	0.28 J	230 D	0.47 J	0.20 U	0.72
cis-1,3-Dichloropropylene	0.4	NT	0.20 U	NT	1 U	NT	1 U	NT	1 U	1 U	NT	0.20 U	NT	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Ethyl Benzene	5	0.20 U	0.20 U	0.20 U	1 U	0.20 U	1 U	0.20 U	1 U	1 U	0.20 U	0.20 U	0.20 U	0.20 U	0.22 J	0.20 U	0.87	0.20 U	0.20 U
Methyl tert-butyl ether (MTBE)	10	0.26 J	0.29 J	0.20 U	1 U	0.20 U	1 U	0.20 U	1 U	1 U	0.20 U	0.20 U	0.35 J	0.31 J	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Methylene chloride	5	1 U	1 U	1 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	8.80 U	1 U	8.80 U	1 U	1 U
o-Xylene	5	0.20 U	0.20 U	0.20 U	1 U	0.20 U	1 U	0.20 U	1 U	1 U	0.20 U	0.20 U	0.20 U	0.20 U	0.35 J	0.20 U	0.40 J	0.20 U	0.20 U
p- & m- Xylenes	5	0.50 U	0.50 U	0.50 U	2.50 U	0.50 U	2.50 U	0.50 U	2.50 U	2.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.54 J	0.50 U	0.50 U
tert-Butyl alcohol (TBA)	~		0.50 UJ	NT	2.50 UJ	NT	2.50 UJ	NT	2.50 UJ	2.50 UJ	NT	0.50 UJ	NT	0.50 UJ	0.50 U	0.50 U	29	0.50 U	0.50 U
Tetrachloroethylene	5	12	12	78 D	160 D	340 D	270 D	510 D	370 D	380 D	37	45 D	16	12	11	2,200 D	10	23	61 D
Toluene	5	0.20 U	0.20 U	0.20 U	1 U	0.20 U	1 U	0.20 U	1 U	1 U	0.20 U	0.20 U	0.20 U	0.20 U	1.40	0.20 U	3	0.20 U	0.20 U
trans-1,2-Dichloroethylene	5	0.20 U	0.20 U	0.20 U	1 U	0.20 U	1 U	0.67	1 U	1 U	0.20 U	0.26 J	0.20 U	0.20 U	0.20 U	1.10	2.20	0.20 U	0.20 U
Trichloroethylene	5	0.22 J	0.21 J	1.70	3.20 D	10	7 D	17	9.80 D	10 D	1.10	1.10	0.20 J	0.20 U	0.23 J	47 D	0.36 J	0.28 J	1.90
Vinyl Chloride	2	0.50 U	0.20 U	0.50 U	1 U	0.50 U	1 U	0.50 U	1 U	1 U	0.50 U	0.20 U	0.50 U	0.20 U	0.20 U	0.39 J	0.20 U	0.20 U	0.20 U
Xylenes, Total	5	0.60 U	0.60 U	0.60 U	3 U	0.60 U	3 U	0.60 U	3 U	3 U	0.60 U	0.60 U	0.60 U	0.60 U	0.84 J	0.60 U	0.94 J	0.60 U	0.60 U
Semi-Volatile Organic Compounds (µg/L)																			
Benzo(a)anthracene	0.002	0.051 U	0.051 U	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 UJ	0.47 J	0.053 U	0.057 U	0.051 U	0.054 U	0.063 U	0.057 U	0.054 U	0.059 U	NT
Benzo(a)pyrene	0.002	0.051 UJ	0.051 U	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 UJ	0.41 J	0.053 U	0.057 U	0.051 U	0.054 U	0.063 U	0.057 U	0.054 U	0.059 U	NT
Benzo(b)fluoranthene	0.002	0.051 UJ	0.051 UJ	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 UJ	0.30 J	0.053 U	0.057 U	0.051 U	0.12	0.063 U	0.057 U	0.054 U	0.059 U	NT
Benzo(g,h,i)perylene	~	0.051 UJ	0.051 UJ	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 U	0.54	0.053 U	0.057 U	0.051 U	0.087	0.063 U	0.057 U	0.054 U	0.059 U	NT
Benzo(k)fluoranthene	0.002	0.051 UJ	0.051 U	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 UJ	0.38 J	0.053 U	0.057 U	0.051 U	0.087	0.063 U	0.057 U	0.054 U	0.059 U	NT
Bis(2-ethylhexyl)phthalate	5	NT	2.91	NT	0.89	NT	2.57	NT	1.14	1.51	NT	1.35	NT	1.12	21.80 U	0.811 U	1.81 U	1.22 U	NT
Chrysene	0.002	0.051 U	0.051 U	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 UJ	0.31 J	0.053 U	0.057 U	0.051 U	0.054 U	0.063 U	0.057 U	0.054 U	0.059 U	NT
Dibenzo(a,h)anthracene	~	0.051 UJ	0.051 UK	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 U	0.47	0.053 U	0.057 U	0.051 U	0.065	0.063 U	0.057 U	0.054 U	0.059 U	NT
Fluorene	50	0.051 U	0.051 U	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 U	0.10	0.053 U	0.057 U	0.051 U	0.054 U	0.063 U	0.057 U	0.054 U	0.18	NT
Indeno(1,2,3-cd)pyrene	0.002	0.051 UJ	0.051 UJ	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 U	0.051 U	0.053 U	0.057 U	0.051 U	0.076	0.063 U	0.057 U	0.054 U	0.059 U	NT
Naphthalene	10	0.062 J	0.051 J	0.053 U	0.051 U	0.054 U	0.074	0.053 U	0.062 U	0.051 U	0.053 J	0.057 U	0.051 U	0.054 U	0.063 U	0.057 U	0.12	0.059 U	NT
Phenanthrene	50	0.051 U	0.051 U	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 U	0.23	0.053 U	0.057 U	0.072	0.054 U	0.063 U	0.057 U	0.054 U	0.059 U	NT
Pyrene	50	0.051 U	0.051 U	0.053 U	0.051 U	0.054 U	0.053 U	0.053 U	0.051 U	0.29	0.053 U	0.069	0.051 U	0.054 U	0.063 U	0.057 U	0.054 U	0.059 U	NT
Dissolved Metals (µg/L)																			
Aluminum	~	NT	92	NT	10 U	NT	1,900	NT	47	44	NT	2,780	NT	808	80 U	97	72 U	133	NT
Barium	1000	NT	84	NT	81	NT	167	NT	325	326	NT	121	NT	57	54	199	478	78	NT
Calcium	~	NT	64,100	NT	165,000	NT	197,000	NT	193,000	196,000	NT	58,200	NT	47,400	30,700	290,000	162,000	128,000	NT
Chromium	50	NT	5 U	NT	5 U	NT	38	NT	5 U	5 U	NT	23	NT	13	5 U	5 U	5 U	5 U	NT
Cobalt	~	NT	5 U	NT	5 U	NT	5 U	NT	5 U	5 U	NT	5 U	NT	5 U	5 U	5 U	31	5 U	NT
Copper	200	NT	3 U	NT	1,140	NT	121	NT	3 U	3 U	NT	8	NT	3 U	4 U	3 U	3 U	5	NT
Iron	~	NT	114	NT	243	NT	2,820	NT	66	62	NT	4,440	NT	1,290	20 U	20 U	7,850	20 U	NT
Lead	25	NT	3 U	NT	3	NT	4	NT	3 U	3									

Table 2
Sixth and Seventh Quarterly Groundwater Monitoring Event Results (VOCs)
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Sample Location	Standards and Guidance Values - GA	MW05							MW07							MW12						
Sample ID		MW05_021114	MW05_100914	MW05_022416	MW05_122016	MW05_032817	MW05_071017	MW07_110214	MW07_022416	MW07_052316	MW07_090916	MW07_122116	MW07_032817	MW07_071017	MW12_112015	MW12_022316	MW12_052416	MW12_090916	MW12_122016	MW12_032917	MW12_071017	
Sub Sample ID		1480261-04	14J0446-05	1608061-03	16J0844-06	17C1049-03	17D2023-06	14K0070-02	16B016-04	16D0944-03	16B0336-03	16L0909-01	17C1049-02	17D2023-01	16K0709-03	16B0761-03	16E1019-03	16B0326-01	16L0844-05	17C1105-01	17D2023-02	
Sample Date		2/11/2014	10/9/2014	2/24/2016	12/20/2016	3/28/2017	7/10/2017	11/2/2014	2/24/2016	5/23/2016	9/9/2016	12/21/2016	3/28/2017	7/10/2017	11/20/2015	2/23/2016	5/24/2016	9/9/2016	12/20/2016	3/29/2017	7/10/2017	
Volatile Organic Compounds (µg/l)																						
1,1,1-Trichloroethane	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
1,1-Dichloroethane	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
1,1-Dichloroethene	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
1,2,4-Trimethylbenzene	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
1,2-Dichlorobenzene	3	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
1,2-Dichloroethane	0.6	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
1,3,5-Trimethylbenzene (Mesitylene)	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
1,3-Dichlorobenzene	3	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
1,4-Dichlorobenzene	3	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.38	J	20	U	0.2	U	
1,4-Dioxane (P-Dioxane)	-	40	U	40	U	80	U	40	U	40	U	40	U	40	U	80	U	4000	U	40	U	
Acetone	50	9.8	1	U	1	U	2.1	U	1	U	1	U	1.1	J	1.7	U	1	U	21000	D	380	D
Benzene	1	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.99	J	
Carbon Tetrachloride	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
Chlorobenzene	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
Chloroform	7	0.27	J	0.2	U	4.5	J	0.62	U	1.8	J	0.45	J	1	U	0.37	J	0.31	J	0.22	J	
cis-1,2-Dichloroethylene	5	0.66	0.44	J	0.2	U	0.36	J	0.2	U	0.28	J	0.2	U	0.2	U	0.2	U	0.2	U	20	D
Ethylbenzene	5	0.2	U	0.2	U	0.2	U	0.2	U	0.25	J	0.2	U	0.2	U	0.2	U	0.2	U	1.6	U	
m,p-Xylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	
Methyl Ethyl Ketone (2-Butanone)	50	1.1	U	0.2	U	0.2	U	0.2	U	1.8	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
Methylene Chloride	5	1	U	1	U	1	U	1	U	8.8	U	1	U	1	U	1	U	100	U	50	U	
Naphthalene	10	NT	NT	1	U	1	U	NT	1	U	1	U	1	U	1	U	100	U	50	U	1	U
n-Butylbenzene	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
n-Propylbenzene	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
p-Xylene (1,2-Dimethylbenzene)	5	0.2	U	0.2	U	0.2	U	0.2	U	0.35	J	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
sec-Butylbenzene	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
Tert-Butyl Methyl Ether (MTBE)	10	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
tert-Butylbenzene	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
Tetrachloroethylene (PCE)	5	37	45	D	34	27	17	10	11	35	21	J	40	30	J	32	20	140	20	U	10	U
Toluene	5	0.2	U	0.2	U	0.2	U	0.2	U	1.4	U	0.2	U	0.2	U	0.52	U	0.33	J	0.46	J	
trans-1,2-Dichloroethene	5	0.2	U	0.26	J	0.2	U	0.2	U	0.25	J	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	
Trichloroethylene (TCE)	5	1.1	1.1	0.52	1.2	0.45	J	0.38	J	0.23	J	0.76	0.56	0.64	0.71	0.63	0.7	42	20	U	10	U
Vinyl Chloride	2	0.5	U	0.5	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.25	J	20	U	10	U	
Xylenes, Total	5	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	80	U	30	U	
Total VOCs and CVOCs (µg/l)																						
Total VOCs	-	49.93	46.8	39.02	32.76	18.07	12.18	17.11	37.01	21.93	42.05	32.63	32.63	21.03	21443.5	7200	6144	512.23	315.96	1980.2	404.87	
Total CVOCs	-	38.76	46.8	34.52	28.56	17.45	10.38	11.51	36.01	21.56	40.64	30.71	32.63	20.7	202.25	90	14	10.9	10.5	10.6	6.71	

- Notes:**
- Groundwater samples analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values.
 - Groundwater sample analysis results exceeding NYSDEC TOGS AWQS are highlighted and in bold.
 - MW05 and MW07 are located off-site.
 - Initial = Pre-injection groundwater sampling
 - VOC = volatile organic compound
 - CVOC = chlorinated volatile organic compound
 - µg/l = micrograms per liter
 - NT = Sample not tested for constituent
 - B = The analyte was detected above the reporting limit in the associated method blank.
 - D = Concentrations of analyte was quantified from diluted analysis.
 - J = The analyte was detected above the Method Detection Limit (MDL), but below the Reporting Limit (RL); therefore, the result is an estimated concentration.
 - U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.
 - = No standard or guidance value for this compound
 - MW05 was not sampled during quarter 3 and 4 due to inaccessibility.

Table 2
Quarterly Groundwater Monitoring Event Results (VOCs)
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Sample Location	NYSDEC Standards	MW13												MW14								MW15							
Sample ID	Guidance Value - GA	MW13_112015	MW13_022316	MW13_052416	MW13_090816	MW13_122016	MW13_032917	MW13_071017	MW14_112315	MW14_022416	MW14_052316	MW14_090816	MW14_122116	MW14_032917	MW14_071017	MW15_112315	MW15_022416	MW15_052416	MW15_090916	MW15_122016	MW15_032917	MW15_071017							
Lab Sample ID		16K0769-01	16M0716-05	16E1019-02	16M0828-05	16L0844-06	17C1105-02	17G0203-03	15K0828-02	16B0816-01	16E0944-02	16M0825-04	16L0909-02	17C1105-03	17G0203-05	15K0828-03	16M0816-02	16E1019-01	16M0830-02	16L0844-04	17C1105-04	17G0203-04							
Volatile Organic Compounds (µg/l)		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7							
1,1,1-Trichloroethane	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
1,1-Dichloroethene	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
1-Chlorobutene	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
1,2,4-Trimethylbenzene	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
2-Dichlorobenzene	3	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
2,3-Dichlorobenzene	0.2	0.2	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
1,3,5-Trimethylbenzene (Mesitylene)	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
1,3-Dichlorobenzene	3	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
1,4-Dichlorobenzene	3	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
4-Closoane (P-Dioxane)	50	400	U	400	U	400	U	400	U	400	U	400	U	400	U	400	U	400	U	400	U	400	U						
Acetone	50	240	D	1200	DE	1100	D	430	J	38	BD	210	D	9.8	U	1	U	1	U	1	U	1	U						
Benzene	1	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
Carbon Tetrachloride	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
Chlorobenzene	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
Chloroform	7	0.48	JD	4	U	2	U	0.2	U	0.2	U	0.2	U	0.32	J	62	98	76	82	74	D	39	44						
cis-1,2-Dichloroethylene	5	29	D	270	D	95	D	11	15	16	31	J	62	98	76	82	74	D	39	44	D	0.2	U						
n-Ethylbenzene	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
m,p-Xylene	5	1	U	10	U	5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U						
Methyl Ethyl Ketone (2-Butanone)	50	0.4	U	110	D	55	D	3.6	U	19	45	0.2	U	0.2	U	1	U	1	U	1	U	1	U						
Methylene Chloride	5	2	U	20	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U						
Naphthalene	10	2	U	10	U	1	U	NT	1	U	1	U	1	U	1	U	1	U	1	U	1	U							
n-Butylbenzene	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
n-Propylbenzene	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
p-Xylene (1,4-Dimethylbenzene)	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
sec-Butylbenzene	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
tert-Butyl Methyl Ether (MTBE)	10	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
tert-Butylbenzene	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
tetrachloroethylene(PCE)	5	270	D	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
Toluene	5	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
trans-1,2-Dichloroethene	5	0.4	U	4	U	2	U	0.42	J	0.37	J	0.62	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
Trichloroethylene (TCE)	5	5.6	D	21	D	2	U	2.2	U	3.3	J	1.4	U	1.6	U	1.1	U	0.32	U	0.44	J	0.32	U						
Vinyl Chloride	2	0.4	U	4	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U						
Xylenes, Total	5	1.2	U	12	U	6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U						
Total VOCs and CVOCs (µg/l)																													
Total VOCs	-	549.06	1064	1234.7	483.82	90.07	277.6	57.36	130.4	179.97	134.68	152.46	134.26	56.6	86.58	5.99	26.31	32.11	16.48	33.08	23.32	16.89							
Total CVOCs	-	308.6	354	69.7	17.62	33.07	39.22	36.8	128.47	178.55	133.2	149	125.41	55.61	85	5.7	25.32	31.44	12.22	31.44	21.32	16.31							

Notes:

1. Groundwater samples analysis results are compared to the New York State Department of Environmental Conservation (NYSDCE) Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values.
2. Groundwater sample analysis results exceeding NYSDCE TOGS AWQS are highlighted and in bold.
3. MW05 and MW07 are located off-site.
4. Initial = Pre-injection groundwater sampling
5. VOC = volatile organic compound
6. CVOC = chlorinated volatile organic compound
7. µg/L = micrograms per liter
8. NT = Sample not tested for constituent
9. B = The analyte was detected above the reporting limit in the associated method blank.
10. D = D concentrations of analyte was quantified from diluted analysis.
11. J = The analyte was detected above the Method Detection Limit (MDL), but below the Reporting Limit (RL); therefore, the result is an estimated concentration.
12. U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL, the value shown in the table is the RL.
13. = No standard or guidance value for this compound

Table 2
Sixth and Seventh Quarterly Groundwater Monitoring Event Results (VOCs)
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Sample Location		NYSDEC TOGS		MW16													
Sample ID	Standards and Guidance Values - GA	MW16_112015	DUP01_112015	MW16_022316	DUP01_022316	MW16_052316	DUP01_052316	MW16_090816	DUP01_090816	MW16_122016	DUP01_122016	MW16_032817	DUP01_032817	MW16_071017	DUP01_071017		
Lab Sample ID	Guidance Values - GA	15K0709-05 11/20/2015	15K0709-06 11/20/2015	16B0701-01 2/23/2016	16B0701-02 2/23/2016	16E0944-01 5/23/2016	16E0944-04 5/23/2016	16B0205-03 9/9/2016	16B0205-06 9/9/2016	16L0844-03 12/20/2016	16L0844-07 12/20/2016	17C1049-01 3/28/2017	17C1049-04 3/28/2017	17G0203-07 7/10/2017	17G0203-08 7/10/2017		
Volatile Organic Compounds (µg/l)		Quarter 1		Quarter 2		Quarter 3		Quarter 4		Quarter 5		Quarter 6		Quarter 7			
1,1,1-Trichloroethane	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,1-Dichloroethane	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,1-Dichloroethene	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,2,4-Trimethylbenzene	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,2-Dichlorobenzene	3	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,2-Dichloroethane	0.6	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,3,5-Trimethylbenzene (Mesitylene)	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,3-Dichlorobenzene	3	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,4-Dichlorobenzene	3	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,4-Dioxane (P-Dioxane)	~	40 U	40 U	800 U	800 U	80 U	80 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U		
Acetone	50	2.3 J	1.1 J	1200 D	1200 D	410 D	370 D	1.5 U	3 U	4.8 U	7.9 U	1.2 J	1.2 J	1 J	1 J		
Benzene	1	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
Carbon Tetrachloride	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
Chlorobenzene	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
Chloroform	7	2.6	2.5	4 U	4 U	0.4 U	0.4 U	0.23 J	0.22 J	0.22 J	0.3 J	0.2 U	0.2 U	0.52	0.6		
cis-1,2-Dichloroethylene	5	1.1	1.1	41 D	38 D	20 D	20 D	19	19	27	24	26	22	10	11		
Ethylbenzene	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
m,p-Xylene	5	0.5 U	0.5 U	10 U	10 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
Methyl Ethyl Ketone (2-Butanone)	50	0.2 U	0.2 U	62 D	59 D	22 D	20 D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
Methylene Chloride	5	1 U	1 U	20 U	20 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U		
Naphthalene	10	1 U	1 U	20 U	20 U	2 U	2 U	1 U	1 U	1 U	1 U	NT	NT	1 U	1 U		
n-Butylbenzene	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
n-Propylbenzene	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
o-Xylene (1,2-Dimethylbenzene)	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
sec-Butylbenzene	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
tert-Butyl Methyl Ether (MTBE)	10	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
tert-Butylbenzene	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
Tetrachloroethylene(PCE)	5	110	120	62 D	58 D	62 J	65 J	83 E	86 E	39 D	48 D	33	40	20	15		
Toluene	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
trans-1,2-Dichloroethene	5	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
Trichloroethylene (TCE)	5	2.4	2.4	4.6 JD	4 U	3.6 D	3.6 D	4.4	4.5	4.6	4.5	2.9	2.8	2.3	1.9		
Vinyl Chloride	2	0.2 U	0.2 U	4 U	4 U	0.4 U	0.4 U	0.2 U	0.2 U	0.66	0.59	0.86	0.76	0.28 J	0.29 J		
Xylenes, Total	5	0.6 U	0.6 U	12 U	12 U	1.2 U	1.2 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U		
Total VOCs and CVOCs (µg/l)																	
Total VOCs	~	118.4	127.1	1369.6	1305	517.6	478.6	108.13	112.72	78.28	85.29	62.1	67	34.1	29.79		
Total CVOCs	~	113.5	123.5	107.6	96	85.6	88.6	106.4	109.5	71.26	77.09	61.76	66.56	32.78	28.19		

- Notes:**
- Groundwater samples analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values.
 - Groundwater sample analysis results exceeding NYSDEC TOGS AWQS are highlighted and in bold.
 - MW05 and MW07 are located off-site.
 - Initial = Pre-injection groundwater sampling
 - VOC = volatile organic compound
 - CVOC = chlorinated volatile organic compound
 - µg/l = micrograms per liter
 - NT = Sample not tested for constituent
 - B = The analyte was detected above the reporting limit in the associated method blank.
 - D = Concentrations of analyte was quantified from diluted analysis.
 - J = The analyte was detected above the Method Detection Limit (MDL), but below the Reporting Limit (RL); therefore, the result is an estimated concentration.
 - U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.
 - ~ = No standard or guidance value for this compound

Table 3
Sixth and Seventh Quarterly Groundwater Monitoring Results (Geochemical and Biological Parameters)
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Sample Location Sample ID Lyn Sample ID Sample Date	NYSDEC TOGS Standards and Guidance Values - GA	MW06										MW07										MW12									
		MW06_021114 14/02/14 2/11/2014	MW06_100914 14/04/14 10/9/2014	MW06_022416 18/07/16-03 2/04/2016	MW06_122016 16/04/16-08 12/20/2016	MW06_032017 17/04/16-03 2/28/2017	MW06_070117 17/04/16-08 7/16/2017	MW07_110214 14/07/16-02 11/2/2014	MW07_022416 18/07/16-04 2/04/2016	MW07_052316 16/04/16-03 6/23/2016	MW07_090916 18/03/16-03 9/9/2016	MW07_122116 16/09/16-01 12/2/2016	MW07_032017 17/04/16-02 3/28/2017	MW07_070117 17/04/16-03 7/16/2017	MW12_112015 18/07/16-03 11/20/2015	MW12_022316 18/07/16-03 2/23/2016	MW12_052416 16/10/16-03 5/24/2016	MW12_090916 18/03/16-01 9/9/2016	MW12_122016 16/04/16-05 12/20/2016	MW12_032017 17/04/16-01 3/28/2017	MW12_070117 17/03/16-02 7/16/2017										
		Initial	Initial	Quarter 2	Quarter 5	Quarter 6	Quarter 7	Initial	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7										
		MetHach, Ethane & Ethylene (ug/l)																													
Ethane	-	NT	NT	10 U	U	10 U	U	NT	10 U	U	10 U	U	10 U	U	NT	10 U	U	10 U	U	2000 U	500 U	NT									
Ethylene Ethanol	-	NT	NT	10 U	U	10 U	U	NT	10 U	U	10 U	U	10 U	U	NT	10 U	U	10 U	U	2000 U	500 U	NT									
MetHach	-	NT	NT	10 U	U	10 U	U	NT	10 U	U	10 U	U	10 U	U	NT	10 U	U	10 U	U	2000 U	500 U	NT									
Total Metals (ug/l)																															
Antimony	3	NT	5	U	NT	NT	NT	NT	5	U	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT									
Manganese	300	NT	410	NT	NT	NT	NT	689	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT										
Selenium	10	NT	10	U	NT	NT	NT	12	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT										
Sodium	20000	NT	144000	5	NT	NT	NT	137000	5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT										
Dissolved Metals (ug/l)																															
Antimony	3	NT	5	U	NT	NT	NT	5	U	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT										
Selenium	10	NT	52	NT	NT	NT	NT	10	U	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT										
Sodium	20000	NT	142000	NT	NT	NT	NT	110000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT										
Thallium	-	NT	5	U	NT	NT	NT	5	U	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT										
Iron (ug/l)																															
Iron	300	NT	4440	2510	39000	2330	518	7550	10000	5420	15000	5620	5840	19400	NT	40100	76000	50000	43100	39700	37200										
Copper	300	NT	20	U	58.5	22.200	U	107	22.2	20	U	59.9	96.3	46.2	172	253	239	205	32500	19600	1390										
General Chemistry (ug/l)																															
Chloride	-	NT	NT	120000	200000	175000	NT	NT	430000	500000	515000	450000	365000	NT	NT	684000	880000	810000	770000	680000	NT										
Fluoride	250000	NT	NT	222000 D	311000 D	227000 D	NT	NT	937000 DE	1730000 DE	2180000 J	2330000 JD	2810000 DE	NT	NT	2190000 D	2450000 DE	1860000 DE	1370000 J	830000 DE	NT										
Nitrate	10000	NT	NT	NT	NT	NT	NT	NT	967	D	2910 D	NT	NT	NT	NT	80	U	277 D	NT	NT	NT										
Sulfate	10000	NT	NT	4	U	106 U	40 U	NT	4	U	NT	36.5 JD	40 U	NT	NT	4	U	NT	36	U	4	U									
Barium	250000	NT	NT	397000 DE	398000 J	136,000 DE	10,700	NT	643000 DE	67100 D	68300 D	72400 D	63700 D	6,940	NT	1000 U	1860	5710 D	8900	1000 U	NT										
Total Organic Carbon	-	NT	NT	4980	5190 U	5,520	NT	NT	4120	6370	4980	6510	10800	NT	NT	2740	NT	204000	84400 D	127000 D	NT										
General Chemistry (ppt)																															
Salinity	-	NT	NT	0.3000	0.0000	0.0000	NT	NT	0.3000	0.0000	0.0000	0.0000	0.0000	NT	NT	0.0000	0.0000	0.0000	0.0000	0.0000	NT										
Microbial Activity (col/ml)																															
Coliforms/colony forming units (CFU)	-	NT	NT	0.8	9.1	U	0.5	NT	NT	0.8	0.5	58.7	0.7	0.5	NT	NT	14.3	80000	650	68100	455	NT									
Field Parameters																															
pH (Standard Units)	-	7.23	6.6	7.05	6.91	6.8	6.7	NC	7.27	6.75	6.96	7.4	6.97	7.02	6.41	6.72	6.27	6.26	6.87	6.75	6.85										
Temperature (°C)	-	6.96	17.5	13.91	16.70	13.83	16.68	NC	14.62	17.14	22.3	14.62	16.07	20.50	13.24	15.82	20.46	14.34	12.55	15.4											
Specific Conductivity (mS/cm)	-	2.03	1.37	1.81	1.83	1.29	0.54	NC	7.62	6.60	0.17	7.53	7	5.99	7.98	7.21	5.99	6.22	4.74	2.58	1.35										
Dissolved Oxygen (mg/L)	-	13.9	0.32	0.00	0.66	2.37	4.79	NC	0.00	4.62	0.4	1.95	0.94	0.00	0.00	1.73	0.46	2.63	0.46	0.68	1.44										
Redox Potential (mV)	-	89	104	135	58	136	139	NC	-17	4	42	102	67	89	86	86	82	-113	-124	-127	4										
Turbidity (NTU)	-	381	353	87	280	26.6	194	NC	805	289	187	200	134	840	129	48	23.1	65.6	87.1	134	85.2										

Notes:

1. Groundwater samples analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values.

2. ug/l = micrograms per liter

3. ppt = parts per trillion

4. cells/mL = cells per milliliter

5. mS/cm = millisiemens per centimeter

6. mg/L = milligrams per liter

7. mV = millivolts

8. NTU = Nephelometric Turbidity Unit

9. Groundwater sample analysis results exceeding NYSDEC TOGS AWQS are highlighted and in bold.

10. NT = Sample not tested for constituent

11. - = No standard or guidance value.

12. J = The analyte was detected above the Method Detection Limit (MDL), but below the Reporting Limit (RL), therefore, the result is an estimated concentration.

13. U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL, the value shown in the table is the RL.

14. D = Concentrations of all types was quantified from diluted analysis.

15. E = Concentrations of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

16. NC = Not collected. Poor groundwater recovery precluded collection of groundwater quality parameters prior to sample collection.

Table 3
Sixth and Seventh Quarterly Groundwater Monitoring Results (Geochemical and Biological Parameters)
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Sample Location		NYSDDEC TOGS Standards and Guidance Values - GA		MW13												MW14												MW15																	
Sample ID	Lab Sample ID	MW13_132015	MW13_022016	MW13_052016	MW13_090016	MW13_122016	MW13_032017	MW13_070017	MW14_112015	MW14_022016	MW14_052016	MW14_090016	MW14_122016	MW14_032017	MW14_070017	MW15_112015	MW15_022016	MW15_052016	MW15_090016	MW15_122016	MW15_032017	MW15_070017			MW15_112015	MW15_022016	MW15_052016	MW15_090016	MW15_122016	MW15_032017	MW15_070017														
Sample Date	Sample Date	11/26/2015	2/23/2016	5/24/2016	9/9/2016	12/20/2016	3/29/2017	7/10/2017	11/20/2015	2/24/2016	5/23/2016	9/9/2016	12/21/2016	3/29/2017	7/10/2017	11/23/2015	2/24/2016	5/24/2016	9/9/2016	12/20/2016	3/29/2017	7/10/2017			11/23/2015	2/24/2016	5/24/2016	9/9/2016	12/20/2016	3/29/2017	7/10/2017														
Benzene, Ethane & Ethylene (µg/l)		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7			Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarter 6	Quarter 7														
Ethane		-	NT	10 U	17	10 U	600 U	600 U	NT	NT	10 U	10 U	10 U	10 U	10 U	NT	10 U	10 U	10 U	10 U	10 U	10 U	NT			10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U				
Ethylene (Ethane)		-	NT	10 U	10 U	130	210	6000 D	3700 D	NT	NT	10 U	10 U	10 U	10 U	10 U	NT	10 U	10 U	10 U	10 U	10 U	10 U	NT			10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U				
Acetylene		-	NT	10 U	10 U	130	210	6000 D	3700 D	NT	NT	10 U	10 U	10 U	10 U	10 U	NT	10 U	10 U	10 U	10 U	10 U	10 U	NT			10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U				
Total Metals (µg/l)																																													
Antimony		3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT				
Magnesium		300	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			
Selenium		10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			
Sodium		20000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			
Thallium		--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			
Iron (µg/l)																																													
Total Dissolved		300	NT	7210	16900	18800	20500	23300	16200	NT	722	3320	4470	627	2570	U	196	NT	3620	10800	2620	14200	2940	2310			NT	3620	10800	2620	14200	2940	2310												
Dissolved		300	NT	916	490	2700	3600	143	U	22.2	U	26.6	438	41.800	78	U	22.2	U	22.2	54.6	41.9	104	98.6	U	22.2			22.2	54.6	41.9	104	98.6	U	22.2	U	22.2	54.6	41.9	104	98.6	U	22.2	U		
General Chemistry (µg/l)																																													
Arsenic		--	NT	100000	650000	650000	650000	650000	650000	NT	NT	343000	376000	400000	380000	360000	NT	NT	122000	136000	122000	110000	124000	NT			NT	122000	136000	122000	110000	124000	NT												
Chloride		250000	NT	746000	DE	1080000	DE	1200000	J	1010000	DE	317000	DE	327000	DE	348000	DE	NT	NT	698000	DE	779000	DE	433000	NT			NT	698000	DE	779000	DE	433000	NT											
Nitrate		10000	NT	NT	50	U	239	U	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT			
Nitrite		1000	NT	4	U	NT	NT	36.600	U	4	U	NT	4	U	NT	36.200	U	4	U	NT	NT	36.8	U	4	U			4	U	NT	36.8	U	4	U	NT	4	U	NT	4	U	NT	4	U		
Sulfate		250000	NT	3960	NT	2000	U	2020	D	20000	U	1000	U	797000	DE	820000	DE	890000	J	163000	D	485000	E	553000	NT			NT	163000	D	201000	J	188000	J	132000	E	12100	NT	132000	E	12100	NT	132000	E	12100
Total Organic Carbon		--	NT	100000	NT	62900	NT	13100	D	90700	D	NT	2870	DE	4620	3440	U	5910	U	4130	U	NT	NT	NT			NT	1630	NT	4780	U	3640	U	4120	U	NT	4120	U	NT	4120	U	NT	4120	U	NT
General Chemistry (ppt)																																													
Salinity		--	NT	0.0500	0.0500	0.0500	U	0.0500	U	0.0500001	U	NT	NT	0.0500	0.0500	0.0500	U	0.0500	U	0.050000	U	0.050000	U	0.05	U			NT	0.0500	0.0500	0.05000	U	0.050000	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	
Field Parameters																																													
16 Standard units		--	1382	7.51	6.88	6.58	6.56	7.06	6.86	6.96	7.23	7.03	6.63	6.86	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			
Temperature (°C)		--	73.87	12.7	12.7	12.7	22.9	14.0	14.0	15.51	18.81	18.81	18.81	19.81	NC	16.37	14.31	12.84	14.45	14.45	22.12	13.94	NC			NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			
Specific Conductivity (µmS/cm)		--	4.22	3.82	4.07	4.17	4.28	3.88	2.92	3.88	2.91	2.84	2.84	NC	2.84	NC	2.84	2.84	2.84	2.84	2.84	2.84	NC			NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			
Dissolved Oxygen (mg/L)		--	1.56	0.00	2.21	2.80	2.80	2.9	2.99	2.9	2.97	3.24	3.95	NC	4.89	2.82	1.2	1.28	2.00	1.00	1.05	NC	4.9			NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC			
Reactive Phosphorus (µg/L)		--	1.18	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80			1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80				
Turbidity (NTU)		--	20.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				

Table 3
Sixth and Seventh Quarterly Groundwater Monitoring Results (Geochemical and Biological Parameters)
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Sample Location Sample ID Lab Sample ID Sample Date	NYSDC TOGS Standards and Guidance Values - GA	MW16															
		MW16_112015 11/20/2015	DUP11_112015 11/20/2015	MW16_022316 16/02/16-01 2/23/2016	DUP11_022316 16/02/16-02 2/23/2016	MW16_052316 16/05/16-01 5/23/2016	DUP11_052316 16/05/16-04 5/23/2016	MW16_090816 16/09/16-01 9/8/2016	DUP11_090816 16/09/16-06 9/8/2016	MW16_122016 16/12/16-05 12/20/2016	DUP11_122016 16/12/16-07 12/20/2016	MW16_032017 17/03/16-01 3/2/2017	DUP11_032017 17/03/16-04 3/2/2017	MW16_070117 17/07/16-01 7/16/2017	DUP11_070117 17/07/16-08 7/16/2017		
		Quarter 1				Quarter 2				Quarter 3				Quarter 4			
Methane, Ethane & Ethylene (ug/l)																	
Ethane	--	NT	NT	10	U	NT	NT	100	U	20	U	100	U	500	U	NT	NT
Ethylene (Ethane)	--	NT	NT	10	U	NT	NT	100	U	20	U	100	U	500	U	NT	NT
Methane	--	NT	NT	86	NT	NT	NT	600	J	300	J	1000	J	1600	D	3000	D
Total Metals (ug/l)																	
Arsenicity	3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Manganese	300	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Sodium	20000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dissolved Metals (ug/l)																	
Arsenicity	3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Sodium	20000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Iron (ug/l)																	
Fe	300	NT	NT	2700	NT	2180	NT	1940	2030	2200	J	2940	4280	2990	4610	7980	5600
Dissolved	300	NT	NT	2580	NT	412	NT	22.2	U	221	U	1940	1790	2350	1500	J	692
General Chemistry (ug/l)																	
Alkalinity	--	NT	NT	50000	NT	460000	NT	416000	414000	460000	D	470000	460000	460000	NT	NT	NT
Chloride	250000	NT	NT	175000	D	NT	105000	D	94700	D	96600	D	125000	D	82400	82600	D
Fluoride	10000	NT	NT	NT	NT	NT	2900	D	NT	3260	J	NT	NT	NT	NT	NT	NT
Nitrate	1000	NT	NT	400	NT	NT	NT	NT	NT	22	U	88	U	392	408	J	NT
Sulfate	250000	NT	NT	424000	DE	NT	254000	DE	NT	235000	J	343000	J	304000	J	205000	E
Total Organic Carbon	--	NT	NT	24000	NT	16900	NT	2980	U	6070	J	5530	U	4490	U	5790	6030
General Chemistry (ppt)																	
Salinity	--	NT	NT	0.0000	NT	0.0000	NT	0.00000	U	0.00000	U	0.00000	U	0.000000	U	0.000000	U
Microbial Activity (colony/ml)																	
Chlorococcoides spp. (CHC)	--	NT	NT	188	7.8	53	64.5	343	324	35.3	57.2	1.1	0.9	NT	NT	NT	NT
Field Parameters																	
pH (standard units)	--	6.07	NC	7.73	NC	6.72	NC	6.59	NC	6.94	NC	6.95	6.95	6.76	6.76	6.76	6.76
Temperature (°C)	--	16.61	NC	16.54	NC	15.91	NC	16.45	NC	13.94	NC	15.46	15.46	13.96	13.96	13.96	13.96
Specific Conductivity (mS/cm)	--	1.41	NC	2.520	NC	1.58	NC	1.47	NC	0	NC	1.49	1.49	1.23	1.23	1.23	1.23
Dissolved Oxygen (mg/L)	--	1.99	NC	0.00	NC	1.26	NC	2.1	NC	10.05	NC	0.86	0.86	1.23	1.23	1.23	1.23
Redox Potential (mv)	--	167	NC	-109	NC	-144	NC	-52	NC	26	NC	-123	-123	-75	-75	-75	-75
Turbidity (NTU)	--	0.0	NC	22.9	NC	0.0	NC	0.0	NC	231	NC	3.34	3.34	3.34	3.6	3.6	3.6

Notes:

2. ug/l = micrograms per liter
3. ppt = parts per trillion
4. col/mL = cells per milliliter
5. mS/cm = millisiemens per centimeter
6. mg/L = milligrams per liter
7. mV = millivolts
8. NTU = Nephelometric Turbidity Unit
9. Groundwater sample analysis results exceeding NYSDC TOGS AWQS are highlighted and in bold.
10. NT = Sample not tested for constituent
11. -- = No standard or guidance value
12. J = The analyte was detected above the Method Detection Limit (MDL), but below the Reporting Limit (RL); therefore, the result is an estimated concentration.
13. U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.
14. D = Concentrations of analyte was quantified from diluted analysis.
15. E = Concentrations of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
16. NC = Not collected. Poor groundwater recovery precluded collection of groundwater quality parameters prior to sample collection.

Table 4
Sixth and Seveth Quarterly Groundwater Monitoring Results - QA/QC Samples (VOCs and Geochemical Parameters)
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Sample ID	NYSDEC TOGS	FB01_032917	TB01_032817	TB01_032917	FB01_071017	TB01_032817
Lab Sample ID	Standards and	17C1105-06	17C1049-05	17C1105-05	17G0203-09	17G0203-10
Sample Date	Guidance Values -	3/29/2017	3/28/2017	3/29/2017	7/10/2017	7/10/2017
Quarter	GA	Quarter 6			Quarter 7	
Volatile Organic Compounds (VOCs)						
1,1,1-Trichloroethane	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,1-Dichloroethane	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,1-Dichloroethylene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,2,4-Trimethylbenzene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,2-Dichlorobenzene	3	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,2-Dichloroethane	0.6	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,3,5-Trimethylbenzene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,3-Dichlorobenzene	3	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,4-Dichlorobenzene	3	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,4-Dioxane	~	40 U	40 U	40 U	40 U	40 U
2-Butanone	50	0.200 U	0.200 U	0.200 U	2.800 B	2.400 B
Acetone	50	3.800	1 U	1 U	2.8 U	2 U
Benzene	1	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Carbon tetrachloride	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Chlorobenzene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Chloroform	7	0.260 J	0.200 U	0.200 U	0.200 U	0.200 U
cis-1,2-Dichloroethylene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Ethyl Benzene	5	0.200 U	0.200 U	0.200 U	0.500 U	0.500 U
Methyl tert-butyl ether (MTBE)	10	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Methylene chloride	5	1.500 U	1 U	2 J	2 U	1 U
Naphthalene	10	NT	NT	NT	1 U	1 U
n-Butylbenzene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
n-Propylbenzene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
o-Xylene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
p- & m- Xylenes	5	0.500 U	0.500 U	0.500 U	0.200 U	0.200 U
sec-Butylbenzene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
tert-Butylbenzene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Tetrachloroethylene	5	0.200 UJ	0.200 U	0.200 UJ	0.200 U	0.200 U
Toluene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
trans-1,2-Dichloroethylene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Trichloroethylene	5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Vinyl Chloride	2	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Xylenes, Total	5	0.600 U	0.600 U	0.600 U	0.600 U	0.600 U
Methane, Ethane & Ethylene (µg/l)						
Ethane	~	10 U	NT	NT	NT	NT
Ethylene (Ethene)	~	10 U	NT	NT	NT	NT
Methane	~	10 U	NT	NT	NT	NT
Iron (µg/l)						
Total	~	866	NT	NT	22 U	NT
Dissolved	~	107	NT	NT	22.2 U	NT
General Chemistry (µg/l)						
Alkalinity	~	2000	NT	NT	NT	NT
Chloride	250000	500 U	NT	NT	NT	NT
Nitrate	10000	NT	NT	NT	NT	NT
Nitrite	1000	4 U	NT	NT	NT	NT
Sulfate	250000	1,000 U	NT	NT	1,000 U	NT
Total Organic Carbon	~	1820	NT	NT	NT	NT
General Chemistry (ppt)						
Salinity	~	0.0000001 U	NT	NT	NT	NT

Notes:

- Groundwater samples analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values.
- QA/QC = Quality Assurance/Quality Control
- µg/l = micrograms per liter
- ppt = parts per trillion
- NT = Sample not tested for constituent
- B = Analyte detected in laboratory batch blank.
- J = The analyte was detected above the Method Detection Limit (MDL), but below the Reporting Limit (RL); therefore, the result is an estimated concentration.
- U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.
- ~ = No standard or guidance value for this constituent

APPENDIX A
GROUNDWATER SAMPLING FORMS

Sixth Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW05	Well Depth:	42 ft			
Project Number:	170264501	Pump Make/Model	Monsoon Pro	Well Permit #:	-	Well Diameter:	2 inches			
Personnel:	Elizabeth Adkins	Weather:	Cloudy, Rain	Pump Intake Depth (ft):	38 ft	Well Screen Interval:	-			
Water Quality Device Model	Horiba	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	28.23	Sample No.:	MW05_032817			
Pine Number	022531	PID Beneath Inner Cap:	0.0	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	3/28/2017			
						Sample Time:	14:20			
STABILIZATION = 3 successive readings within limits										
TIME	PH su (+/- 0.1)	CONDUCTIVITY uS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume
	BEGIN PURGING MW-5									
1:55	7.07	1.59	2.45	88.00	26.60	14.80		1.0		
2:00	6.85	1.17	3.60	123.00	26.60	14.69		0.5	Water slightly	
2:05	6.82	1.11	3.23	129.00	26.60	14.41	33 ft	0.5	brown/turbid; no	
2:10	6.81	1.11	2.77	135.00	26.60	13.97	33.40	0.5	sheen nor odor	
2:15	6.80	1.29	2.27	135.00	26.60	14.17	34 ft	0.5		
2:20	6.80	1.29	2.37	136.00	26.60	13.83		0.5	Collect sample using Monsoon Pro Pump; turbid water	

Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW07	Well Depth:	39.85				
Project Number:	170264501	Pump Make/Model	Monsoon Pro	Well Permit #:	-	Well Diameter:	2 inches				
Personnel:	Elizabeth Adkins	Weather:	Cloudy, Rain	Pump Intake Depth (ft):	36.50	Well Screen Interval:	-				
Water Quality Device Model	Horiba	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	31.34	Sample No.:	MW07_032817				
Pine Number	022531	PID Beneath Inner Cap:	0.0	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	3/28/2017				
						Sample Time:	14:45				
STABILIZATION = 3 successive readings within limits											
	PH su	CONDUCTIVITY uS/cm	DO mg/l	ORP mv	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume	
TIME	(+/- 0.1)	(+/- 3%)	(+/- 10%) above 0.5 mg/l	(+/- 10mV)							
BEGIN PURGING MW-7											
1:25	6.98	6.90	1.42	60.00	134.00	15.12			Clear water		
1:30	6.97	7.00	0.94	67.00	134.00	14.62					
14:45	Well purged dry; collect sample using Monsoon Pro Pump after allowing for recharge										

Sixth Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW12	Well Depth:	22.71				
Project Number:	170264501	Pump Make/Model	Monsoon Pro	Well Permit #:	-	Well Diameter:	2 inches				
Personnel:	Elizabeth Adkins	Weather:	Cloudy, Rain	Pump Intake Depth (ft):	20 ft	Well Screen Interval:	-				
Water Quality Device Model	Horiba	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	15.49	Sample No.:	MW12_032917				
Pine Number	022531	PID Beneath Inner Cap:	1.0	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	3/29/2017				
						Sample Time:	8:15				
STABILIZATION = 3 successive readings within limits											
TIME	PH su (+/- 0.1)	CONDUCTIVITY uS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume	
BEGIN PURGING MW-12											
11:50	6.73	2.58	0.68	-127.00	134.00	12.55	dry		Black water, vegetable oil-like odor		
									Purged dry with monsoon pro pump and bailer		
15:20									Well purged dry with bailer		
8:15	Well purged dry on 3/28/2017; collect sample using bailer on 3/29/2017 after allowing for recharge										

Sixth Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW13	Well Depth:	25.60				
Project Number:	170264501	Pump Make/Model	Monsoon Pro	Well Permit #:	-	Well Diameter:	2"				
Personnel:	Elizabeth Adkins	Weather:	Cloudy, Rain	Pump Intake Depth (ft):	23.50	Well Screen Interval:	-				
Water Quality Device Model	Horiba	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	22.20	Sample No.:	MW13_032917				
Pine Number	022531	PID Beneath Inner Cap:	6.6	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	3/29/2017				
						Sample Time:	7:45				
STABILIZATION = 3 successive readings within limits											
TIME	PH su (+/- 0.1)	CONDUCTIVITY uS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume	
	BEGIN PURGING MW-13										
11:10									Well purged dry with Monsoon Pro Pump and Bailers		
									Water was blackish and had a vegetable oil-like odor		
15:20									Well purged dry with bailer		
7:45	Well purged dry on 3/28/2017; collect sample using bailer on 3/29/2017 after allowing for recharge										

Sixth Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW14	Well Depth:	25.48			
Project Number:	170264501	Pump Make/Model	Bailer	Well Permit #:	-	Well Diameter:	2"			
Personnel:	Elizabeth Adkins	Weather:	Cloudy, Rain	Pump Intake Depth (ft):	NA	Well Screen Interval:	-			
Water Quality Device Model	N/a	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	20.29	Sample No.:	MW14_032917			
Pine Number		PID Beneath Inner Cap:	0.0	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	3/29/2017			
						Sample Time:	7:00			
STABILIZATION = 3 successive readings within limits										
	PH su	CONDUCTIVITY uS/cm	DO mg/l	ORP mv	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume
TIME	(+/- 0.1)	(+/- 3%)	(+/- 10%) above 0.5 mg/l	(+/- 10mV)						
BEGIN PURGING MW-14										
7:00	Well purged dry on 3/28/2017; collect sample using bailer on 3/29/2017 after allowing for recharge									

Sixth Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW15	Well Depth:	22.15				
Project Number:	170264501	Pump Make/Model	Monsoon Pro	Well Permit #:	-	Well Diameter:	2 inches				
Personnel:	Elizabeth Adkins	Weather:	Cloudy, Rain	Pump Intake Depth (ft):	19 ft	Well Screen Interval:	-				
Water Quality Device Model	Horiba	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	16.64	Sample No.:	MW15_032917				
Pine Number	022531	PID Beneath Inner Cap:	0.0	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	3/29/2017				
						Sample Time:	8:30				
STABILIZATION = 3 successive readings within limits											
TIME	PH su (+/- 0.1)	CONDUCTIVITY uS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume	
	BEGIN PURGING MW-15										
10:00									Well purged dry with Monsoon Pro pump on 3/28/2017, water is		
15:30									Well purged dry with bailer		
8:30	Well purged dry on 3/28/2017; collect sample using bailer on 3/29/2017 after allowing for recharge										

Sixth Quarterly Groundwater Monitoring Event - Groundwater Sampling Form

535 4th Avenue

Brooklyn, New York

Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW16	Well Depth:	25.48			
Project Number:	170264501	Pump Make/Model	Monsoon Pro	Well Permit #:	-	Well Diameter:	2 inches			
Personnel:	Elizabeth Adkins	Weather:	Cloudy, Rain	Pump Intake Depth (ft):	23 ft	Well Screen Interval:	-			
Water Quality Device Model	Horiba	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	21.21	Sample No.:	MW16_032817			
Pine Number	022531	PID Beneath Inner Cap:	0.1	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	3/28/2017			
						Sample Time:	9:20			
STABILIZATION = 3 successive readings within limits										
TIME	PH su (+/- 0.1)	CONDUCTIVITY mS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume
BEGIN PURGING MW-16										
8:45	6.48	1.51	0.99	-62.00		14.90	21.95	0.6	Clear, vegetable oil-like odor	
8:50	6.86	1.49	0.95	-137.00		15.16	21.95	0.6		
8:55	6.91	1.49	0.92	-140.00		15.08	21.95	0.6		
9:00	6.94	1.51	1.35	-80.00		15.70	21.95	0.5	Adjust flow rate, water is clear, vegetable oil-like odor, no sheen	
9:05	6.95	1.49	0.87	-122.00	3.34	15.50	21.95	0.5		
9:10	6.95	1.49	0.86	-123.00	3.34	15.46	21.95	0.5		
9:15	6.95	1.49	0.86	-123.00	3.34	15.46	21.95	0.5	Collect samples (MW16_032817 and DUP01_032817) using Monsoon Pro Pump	
9:20	6.95	1.49	0.86	-123.00	3.34	15.46	22.45	0.5		

Seventh Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW05	Well Depth:	41.73			
Project Number:	170264501	Pump Make/Model	Monsoon Pro	Well Permit #:	-	Well Diameter:	2 inches			
Personnel:	Elizabeth Adkins	Weather:	75-85 F, Clear	Pump Intake Depth (ft):	37.00	Well Screen Interval:	-			
Water Quality Device Model	Horiba	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	28.25	Sample No.:	MW05_071017			
Pine Number	21085	PID Beneath Inner Cap:	0.0	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	7/10/2017			
						Sample Time:	14:15			
STABILIZATION = 3 successive readings within limits										
TIME	PH su (+/- 0.1)	CONDUCTIVITY mS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume
	BEGIN PURGING MW-5									
13:55	7.21	0.55	5.43	77.00	401.00	16.00	30.32	0.7	Water brown/turbid; no sheen nor odor	
14:00	6.82	0.51	5.27	121.00	126.00	16.45	33.45	0.7		
14:05	6.71	0.53	4.77	130.00	115.00	16.70	35.68	0.7		
14:10	6.69	0.54	4.79	135.00	120.00	16.61	36.51	0.7		
14:15	6.70	0.54	4.79	139.00	194.00	16.68	37.30	0.7	Collect sample using Monsoon Pro Pump; turbid water	

Seventh Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
 535 4th Avenue
 Brooklyn, New York
 Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY		Well No:	MW07		Well Depth:	39.45		
Project Number:	170264501	Pump Make/Model	Monsoon Pro		Well Permit #:	-		Well Diameter:	2 inches		
Personnel:	Elizabeth Adkins	Weather:	75-85 F, Clear		Pump Intake Depth (ft):	38.00		Well Screen Interval:	-		
Water Quality Device Model	Horiba	Background PID Reading:	0.0		Depth to Water Before Pump Installation:	30.71		Sample No.:	MW07_071017		
Pine Number	21085	PID Beneath Inner Cap:	0.1		Tubing Diameter	3/8" ID, 1/2" OD		Sample Date:	7/10/2017		
								Sample Time:	15:30		
STABILIZATION = 3 successive readings within limits											
TIME	PH su (+/- 0.1)	CONDUCTIVITY mS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume	
	BEGIN PURGING MW-7										
1:05	7.07	8.70	6.04	28.00	707.00	16.57	33.31	0.7	Water brown/turbid; no sheen nor odor		
1:10	7.06	7.80	3.25	63.00	817.00	17.00	34.51	0.7			
1:15	7.08	7.13	2.85	71.00	507.00	17.15	36.37	0.7			
1:20	7.02	7.59	2.13	85.00	499.00	17.44	37.50	0.7			
1:25	7.02	7.80	1.85	89.00	640.00	18.07	38.50	0.7			
15:30	Well purged dry; collect sample using bailer after allowing for recharge										

Seventh Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
 535 4th Avenue
 Brooklyn, New York
 Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW12	Well Depth:	22.34				
Project Number:	170264501	Pump Make/Model	Monsoon Pro	Well Permit #:	-	Well Diameter:	2 inches				
Personnel:	Elizabeth Adkins	Weather:	75-85 F, Clear	Pump Intake Depth (ft):	20.50	Well Screen Interval:	-				
Water Quality Device Model	Horiba	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	15.25	Sample No.:	MW12_071017				
Pine Number	21085	PID Beneath Inner Cap:	0.2	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	7/10/2017				
						Sample Time:	15:10				
STABILIZATION = 3 successive readings within limits											
TIME	PH su (+/- 0.1)	CONDUCTIVITY uS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume	
BEGIN PURGING MW-12											
9:30	6.91	1.03	4.28	6.00	116.00	14.90	15.25	0.5	Black water; vegetable oil-like odor		
9:35	6.85	1.35	1.44	4.00	80.20	15.40	15.25	0.5	Purged dry		
15:10	Well purged dry; collect sample using bailer after allowing for recharge										

Seventh Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW13	Well Depth:	25.51			
Project Number:	170264501	Pump Make/Model	Monsoon Pro	Well Permit #:	-	Well Diameter:	2"			
Personnel:	Elizabeth Adkins	Weather:	75-85 F, Clear	Pump Intake Depth (ft):	24.00	Well Screen Interval:	-			
Water Quality Device Model	Horiba	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	20.81	Sample No.:	MW13_071017			
Pine Number	21085	PID Beneath Inner Cap:	2.7	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	7/10/2017			
						Sample Time:	14:50			
STABILIZATION = 3 successive readings within limits										
TIME	PH su (+/- 0.1)	CONDUCTIVITY uS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume
BEGIN PURGING MW-13										
9:50	6.96	3.88	4.90	2.00	73.00	15.51	20.81	0.5	Vegetable oil-like odor	
14:50	Well purged dry; collect sample using bailer after allowing for recharge									

Seventh Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW14	Well Depth:	24.60			
Project Number:	170264501	Pump Make/Model	Bailer	Well Permit #:	-	Well Diameter:	2"			
Personnel:	Elizabeth Adkins	Weather:	75-85 F, Clear	Pump Intake Depth (ft):	20.00	Well Screen Interval:	-			
Water Quality Device Model	Horiba	Background PID Reading:	0.0	Depth to Water Before Pump Installation:	18.82	Sample No.:	MW14_071017			
Pine Number	21085	PID Beneath Inner Cap:	0.1	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	7/10/2017			
						Sample Time:	14:40			
STABILIZATION = 3 successive readings within limits										
TIME	PH su (+/- 0.1)	CONDUCTIVITY uS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume
	BEGIN PURGING MW-14									
9:05	6.65	2.29	1.45	-8.00	37.70	16.03	18.82	0.5	Water clear; no	
9:10	7.16	2.34	4.89	-8.00	30.00	16.37	18.82	0.5	sheen nor odor	
14:40	Well purged dry; collect sample using bailer after allowing for recharge									

Seventh Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY		Well No:	MW15	Well Depth:	22.10		
Project Number:	170264501	Pump Make/Model	Monsoon Pro		Well Permit #:	-	Well Diameter:	2 inches		
Personnel:	Elizabeth Adkins	Weather:	75-85 F, Clear		Pump Intake Depth (ft):	20.50	Well Screen Interval:	-		
Water Quality Device Model	Horiba	Background PID Reading:	0.0		Depth to Water Before Pump Installation:	14.38	Sample No.:	MW15_071017		
Pine Number	21085	PID Beneath Inner Cap:	0.2		Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	7/10/2017		
							Sample Time:	15:00		
STABILIZATION = 3 successive readings within limits										
TIME	PH su (+/- 0.1)	CONDUCTIVITY uS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume
	BEGIN PURGING MW-15									
10:11	7.04	0.41	5.12	2.00	227.00	13.96		0.5	Water clear; no sheen nor odor	
10:15	6.88	0.41	4.90	7.00	508.00	14.37		0.5		
15:00	Well purged dry; collect sample using bailer after allowing for recharge									

Seventh Quarterly Groundwater Monitoring Event - Groundwater Sampling Form
535 4th Avenue
Brooklyn, New York
Langan Project No. 170264501

Project:	535 4th Avenue	Site Location:	Brooklyn, NY	Well No:	MW16	Well Depth:	25.11			
Project Number:	170264501	Pump Make/Model	Monsoon Pro	Well Permit #:	-	Well Diameter:	2 inches			
Personnel:	Elizabeth Adkins	Weather:	75-85 F, Clear	Pump Intake Depth (ft):	23.50	Well Screen Interval:	-			
Water Quality Device Model	Horiba	Background PID Reading:	0.3	Depth to Water Before Pump Installation:	19.20	Sample No.:	MW16_071017			
Pine Number	21085	PID Beneath Inner Cap:	0.3	Tubing Diameter	3/8" ID, 1/2" OD	Sample Date:	7/10/2017			
						Sample Time:	11:30			
STABILIZATION = 3 successive readings within limits										
TIME	PH su (+/- 0.1)	CONDUCTIVITY mS/cm (+/- 3%)	DO mg/l (+/- 10%) above 0.5 mg/l	ORP mv (+/- 10mV)	TURBIDITY ntu (+/- 10%) above 5 NTU	TEMP deg c (+/- 3%)	DTW ft Drawdown < 0.33 ft	Q (L/min) <0.5 L/min (0.13 gpm)	NOTES color, odor etc.	Cumulative Discharge Volume
	BEGIN PURGING MW-16									
10:45	6.93	0.79	5.67	-75.00	96.10	14.39	19.70	0.7	Water clear; no sheen; vegetable oil-like odor	
10:50	6.90	0.89	3.15	-74.00	16.00	14.37	19.85	0.7		
10:55	6.82	0.93	2.06	-73.00	11.30	14.32	19.85	0.7		
11:00	6.79	0.95	1.55	-73.00	8.30	14.39	19.85	0.7		
11:05	6.77	0.98	1.28	-70.00	7.90	14.26	19.85	0.7		
11:10	6.76	0.99	1.09	-72.00	6.20	14.03	19.85	0.7		
11:15	6.76	1.20	1.32	-75.00	4.30	13.95	19.90	0.7		
11:20	6.77	1.20	1.34	-76.00	4.20	14.17	19.95	0.7		
11:25	6.76	1.23	1.23	-75.00	3.60	13.96	19.96	0.7	Collect samples (MW16_071017 and DUP01_071017) using Monsoon Pro Pump	

APPENDIX B
DATA USIBILITY SUMMARY REPORTS

2700 Kelly Road, Suite 200 Warrington, PA 18976 T: 215.491.6500 F: 215.491.6501
Mailing Address: P.O. Box 1569 Doylestown, PA 18901

To: Brian Gochenaur, Langan Senior Project Manager

From: Emily Strake, Langan Senior Project Chemist/Risk Assessor

Date: June 20, 2017

Re: Data Usability Summary Report
521-539 4th Avenue
Groundwater Samples Collected March 2017
Langan Project No.: 170264501

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of four groundwater samples, one trip blank and one field blank collected on March 29, 2017 by Langan Engineering and Environmental Services ("Langan") at the 521-539 4th . The samples were analyzed by York Analytical Laboratories, Inc. (NYSDOH ELAP registration # 10854 and 12058) for volatile organic compounds (VOCs), dissolved gases (methane, ethane, and ethene) total and dissolved iron (Fe) and general chemistry parameters by the following analytical methods:

- VOCs by USEPA Method 8260C
- Methane, Ethane and Ethene by GC/Headspace
- Total and Dissolved Iron by USEPA Method 6010C
- Chloride by USEPA Method 300.0
- Nitrite as N by USEPA Method 300.0
- Sulfate as SO₄ by USEPA Method 300.0
- Alkalinity by Standard Method 2320B
- Salinity by Standard Method 2520B
- Total Organic Carbon by Standard Method 5310C

Table 1, below, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

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Langan Project No.: 170264501
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TABLE 1: SAMPLE SUMMARY

<i>SDG</i>	<i>Lab Sample ID</i>	<i>Client Sample ID</i>	<i>Sample Date</i>	<i>Analytical Parameters</i>
17C1105	17C1105-01	MW12_032917	3/29/17	VOCs, Dissolved gases, Iron, Gen Chem
17C1105	17C1105-02	MW13_032917	3/29/17	VOCs, Dissolved gases, Iron, Gen Chem
17C1105	17C1105-03	MW14_032917	3/29/17	VOCs, Dissolved gases, Iron, Gen Chem
17C1105	17C1105-04	MW15_032917	3/29/17	VOCs, Dissolved gases, Iron, Gen Chem
17C1105	17C1105-05	TB01_032917	3/29/17	VOC
17C1105	17C1105-06	FB01_032917	3/29/17	VOCs, Dissolved gases, Iron, Gen Chem

VALIDATION OVERVIEW

This data validation was performed in accordance with USEPA Region II Standard Operating Procedure (SOP) #HW-34a, "Trace Volatile Data Validation" (September 2016, Revision 1), SOP #HW-3a, "ICP-AES Data Validation" (September 2016, Revision 1), the USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA-540-R-2017-002, January 2017) and "National Functional Guidelines for Inorganic Superfund Methods Data Review" (EPA-540-R-2017-001, January 2017).

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator. Items subject to review in this memorandum include holding times, instrument tuning, instrument calibration, laboratory blanks, laboratory control samples, laboratory duplicates, system monitoring compounds, CRDL standards, internal standard area counts, target compound identification and quantification, chromatograms and overall system performance.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

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- R** – The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- J** – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ** – The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.
- U** – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- NJ** – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are not sufficiently valid and technically supportable to be used for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified.

TABLE 2: VALIDATOR-APPLIED QUALIFICATION

<i>Client Sample ID</i>	<i>Analysis</i>	<i>Analyte</i>	<i>CAS #</i>	<i>Validator Qualifier</i>
MW12_032917	6010C	Dissolved Iron	7439-89-6	U (0.468)
MW13_032917	6010C	Dissolved Iron	7439-89-6	U (0.143)
MW14_032917	6010C	Total Iron	7439-89-6	U (2.57)
MW14_032917	6010C	Dissolved Iron	7439-89-6	U (0.780)
MW14_032917	5310C	Total Organic Carbon	7440-44-0	U (4.13)
MW15_032917	6010C	Total Iron	7439-89-6	U (2.94)
MW15_032917	6010C	Dissolved Iron	7439-89-6	U (0.0986)
MW15_032917	5310C	Total Organic Carbon	7440-44-0	U (4.13)
FB01_032917	8260C	Methylene Chloride	75-09-2	U (2.0)
MW15_032917	8260C	Acetone	67-64-1	U (2.0)
MW12_032917	8260C	1,2,3-Trichlorobenzene	87-61-6	UJ

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<i>Client Sample ID</i>	<i>Analysis</i>	<i>Analyte</i>	<i>CAS #</i>	<i>Validator Qualifier</i>
MW12_032917	8260C	1,2,4-Trichlorobenzene	120-82-1	UJ
MW13_032917	8260C	1,2,3-Trichlorobenzene	87-61-6	UJ
MW13_032917	8260C	1,2,4-Trichlorobenzene	120-82-1	UJ
MW14_032917	8260C	1,2,3-Trichlorobenzene	87-61-6	UJ
MW14_032917	8260C	1,2,4-Trichlorobenzene	120-82-1	UJ
MW15_032917	8260C	1,2,3-Trichlorobenzene	87-61-6	UJ
MW15_032917	8260C	1,2,4-Trichlorobenzene	120-82-1	UJ
TB01_032917	8260C	1,2,3-Trichlorobenzene	87-61-6	UJ
TB01_032917	8260C	1,2,4-Trichlorobenzene	120-82-1	UJ
FB01_032917	8260C	1,2,3-Trichlorobenzene	87-61-6	UJ
FB01_032917	8260C	1,2,4-Trichlorobenzene	120-82-1	UJ
MW12_032917	8260C	Bromomethane	74-83-9	UJ
MW12_032917	8260C	Tetrachloroethylene	127-18-4	J
MW13_032917	8260C	Bromomethane	74-83-9	UJ
MW13_032917	8260C	Tetrachloroethylene	127-18-4	J
MW14_032917	8260C	Bromomethane	74-83-9	UJ
MW14_032917	8260C	Tetrachloroethylene	127-18-4	J
MW15_032917	8260C	Bromomethane	74-83-9	UJ
MW15_032917	8260C	Tetrachloroethylene	127-18-4	J
FB01_032917	8260C	Bromomethane	74-83-9	UJ
FB01_032917	8260C	Tetrachloroethylene	127-18-4	UJ
TB01_032917	8260C	Bromomethane	74-83-9	UJ
TB01_032917	8260C	Tetrachloroethylene	127-18-4	UJ

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

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MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by USEPA Method 8260C:

The trip blank displayed a positive detection for methylene chloride at a concentration of 2.0 µg/L. The associated positive detection in sample FB01_032917 is qualified as “U” based on potential high bias. The field blank sample result was not used to assess contamination resulting from field decontamination procedures or ambient conditions.

The field blank displayed a positive detection for acetone (3.8 µg/L). The associated positive detection in sample MW15_032917 is qualified as “U” based on potential high bias.

The continuing calibration verification (CCV) analyzed for batch Y7D0612 exhibited percent recoveries below the lower control limit for 1,2,3-trichlorobenzene (54.2%) and 1,2,4-trichlorobenzene (73.6%). The associated results in samples MW12_032917, MW13_032917, MW14_032917, MW15_032917 TB01_032917 and FB01_032917 are qualified as “UJ” based on potential low bias.

The initial calibration (ICAL) analyzed for instrument MSVOA7 exhibited relative standard deviations (RSDs) greater than the control limit for bromomethane (45.46%) and tetrachloroethene (25.19%). The associated results in samples MW12_032917, MW13_032917, MW14_032917, MW15_032917 TB01_032917 and FB01_032917 are qualified as “J” or “UJ” based on potential indeterminate bias.

Iron by USEPA Method 6010C:

The field blank displayed positive detections for total and dissolved iron at concentrations of 0.866 mg/L and 0.107 mg/L, respectively. The associated positive detections in samples MW12_032917, MW13_032917, MW14_032917 and MW15_032917 are qualified as “U” based on potential high bias.

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General Chemistry Parameters:

The field blank displayed a positive detection for total organic carbon at a concentration of 1.82 mg/L. The associated positive detections in samples MW14_032917 and MW15_032917 are qualified as "U" based on potential high bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The other deficiencies are identified below.

VOCs by USEPA Method 8260C:

The field blank displayed a positive detection for acetone (3.8 µg/L). This result has been qualified as "U" based on trip blank contamination; no further action is necessary. The field blank also displayed a positive detection for chloroform (0.26 µg/L). The associated results were all non-detections; no qualification is necessary.

The CCV for batch Y7D0612 exhibited percent recoveries greater than the control limit for 1,2-dichloropropane (127%), 1,4-dioxane (160%) and methylcyclohexane (121%). The associated results are non-detections. No qualification is necessary.

The method blank for batch BD70186 displayed a positive detection for 1,2,3-trichlorobenzene (0.37 µg/L). The associated results are all non-detections. No qualification is necessary.

The continuing calibration verification (CCV) analyzed for batch Y7D0612 exhibited a percent recovery below the lower control limit for bromomethane (59.5%). The associated results in samples MW12_032917, MW13_032917, MW14_032917, MW15_032917, TB01_032917 and FB01_032917 were previously qualified based on an ICAL non-conformance. No further action is necessary.

COMMENTS:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All sample hold times were met and the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

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Signed:



Emily Strake, CEP

Senior Project Chemist/Risk Assessor

2700 Kelly Road, Suite 200 Warrington, PA 18976 T: 215.491.6500 F: 215.491.6501
Mailing Address: P.O. Box 1569 Doylestown, PA 18901

To: Shana Holberton, Langan Senior Staff Scientist

From: Emily Strake, Langan Senior Project Chemist/Risk Assessor

Date: July 28, 2017

Re: Data Usability Summary Report
For 535 4th Avenue
Brooklyn, New York
Groundwater Samples Collected July 2017
Langan Project No.: 170264501

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of groundwater samples collected in July 2017 by Langan Engineering and Environmental Services ("Langan") at 535 4th Avenue located in Brooklyn, New York. The samples were analyzed by York Analytical Laboratories, Inc. (NYSDOH ELAP registration # 10854) for volatile organic compounds (VOCs), total and dissolved iron, and sulfate by the methods below:

- VOCs by SW-846 Method 8260C
- Total and dissolved iron by SW-846 Method 6010C
- Sulfate by USEPA 300.0

Table 1, below, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

TABLE 1: SAMPLE SUMMARY

<i>SDG</i>	<i>Lab Sample ID</i>	<i>Client Sample ID</i>	<i>Sample Date</i>	<i>Analytical Parameters</i>
17G0203	17G0203-01	MW07_071017	07/10/2017	VOCs, Sulfate, Total and Dissolved Iron
17G0203	17G0203-02	MW12_071017	07/10/2017	VOCs, Sulfate, Total and Dissolved Iron
17G0203	17G0203-03	MW13_071017	07/10/2017	VOCs
17G0203	17G0203-04	MW15_071017	07/10/2017	VOCs, Sulfate, Total and Dissolved Iron
17G0203	17G0203-05	MW14_071017	07/10/2017	VOCs, Sulfate, Total and Dissolved Iron
17G0203	17G0203-06	MW05_071017	07/10/2017	VOCs, Sulfate, Total and Dissolved Iron

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Data Usability Summary Report
For 535 4th Avenue
Brooklyn, New York
July 2017 Groundwater Samples
Langan Project No.: 170264501
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<i>SDG</i>	<i>Lab Sample ID</i>	<i>Client Sample ID</i>	<i>Sample Date</i>	<i>Analytical Parameters</i>
17G0203	17G0203-7	MW16_071017	07/10/2017	VOCs, Sulfate, Total and Dissolved Iron
17G0203	17G0203-08	DUP01_071017	07/10/2017	VOCs, Sulfate, Total and Dissolved Iron
17G0203	17G0203-09	FB01_071017	07/10/2017	VOCs, Sulfate, Total and Dissolved Iron
17G0203	17G0203-10	TB01_071017	07/10/2017	VOCs

VALIDATION OVERVIEW

This data validation was performed in accordance with USEPA Region II Standard Operating Procedure (SOP) #HW-34a, "Trace Volatile Data Validation" (September 2016, Revision 1), USEPA Region II SOP #HW-3a, "ICP-AES Data Validation" (September 2016, Revision 1), the USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (USEPA-540R-2017-002, January 2017), USEPA "National Functional Guidelines for Inorganic Superfund Methods Data Review" (USEPA-540-R-2017-001, January 2017) and the specifics of the methods employed.

Validation includes evaluation of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator. Items subject to review in this memorandum include holding times, sample preservation, sample extraction, sample digestion, instrument tuning, instrument calibration, laboratory blanks, laboratory control samples, system monitoring compounds, internal standard area counts, CRDL standards, ICP interference check samples, matrix spike/spike duplicate recoveries, interference check samples, laboratory duplicates, target compound identification and quantification, chromatograms, and overall system performance.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

- R** – The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- J** – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- UU** – The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.

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For 535 4th Avenue
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July 2017 Groundwater Samples
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U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

NJ – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are not sufficiently valid and technically supportable to be used for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified.

TABLE 2: VALIDATOR-APPLIED QUALIFICATION

<i>Client Sample ID</i>	<i>Analysis</i>	<i>Analyte</i>	<i>CAS #</i>	<i>Validator Qualifier</i>
FB01_071017	SW8260B	ACETONE	67-64-1	U (2.8)
FB01_071017	SW8260B	METHYLENE CHLORIDE	75-09-2	U (2)
MW12_071017	SW8260B	METHYLENE CHLORIDE	75-09-2	U (2)
MW13_071017	SW8260B	ACETONE	67-64-1	U (9.8)
MW16_071017	SW6010B	TOTAL IRON	7439-89-6	J
MW16_071017	SW6010B	DISSOLVED IRON	7439-89-6	J
TB01_071017	SW8260B	ACETONE	67-64-1	U (2.4)
MW13_071017	SW8260B	CIS-1,2-DICHLOROETHYLENE	156-59-2	J
MW14_071017	SW8260B	TETRACHLOROETHYLENE(PCE)	127-18-4	J
MW16_071017	E300.0	SULFATE (AS SO ₄)	14808-79-8	J
DUP01_071017	E300.0	SULFATE (AS SO ₄)	14808-79-8	J
DUP01_071017	SW6010B	DISSOLVED IRON	7439-89-6	J

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

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Data Usability Summary Report
For 535 4th Avenue
Brooklyn, New York
July 2017 Groundwater Samples
Langan Project No.: 170264501
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MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by SW-846 Method 8260C:

Method blank sample BG70518 displayed a positive detection for acetone at 1.8 ug/L. The associated positive detections are qualified as "U" at the sample concentration.

Field blank sample FB01_071017 displayed a positive detection for methylene chloride at 1.3 ug/L. The associated positive detection in sample MW12_071017 is qualified as "U" at the reporting limit.

Metals by SW-846 Method 6010C:

MS sample MW16_071017 displayed recoveries greater than the upper control limit for dissolved iron at 130% and total iron at 180%. The associated positive detection is qualified as "J."

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by SW-846 Method 8260C:

MS/SD sample MW16_071017 displayed RPDs greater than the control limit for 1,4-dioxane and 2-butanone at 124% and 103%, respectively. Data is not qualified on the basis of MS/SD RPDs alone.

LCS/LCSD BG70518 displayed recoveries greater than the upper control limit for naphthalene at 219% and 235%. The associated sample results were non-detect; qualification is not necessary.

Metals by SW-846 Method 6010C:

ICP serial dilution sample MW16_071017 displayed a %D greater than the control limit at 22.5%. The associated sample result was previously qualified; no further action is necessary.

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Continuing calibration blank Y7G1423-CCB3 displayed a positive detection for dissolved iron at 0.0856 ug/mL. The calibration blank did not bracket the investigative samples; qualification is not necessary.

Sulfate by EPA Method 300.0:

MS sample MW16_071017 displayed a recovery greater than the upper control limit at 1180%. The sample concentration was more than 4X the spiked amount; qualification is not necessary.

COMMENTS:

One field duplicate and parent sample pair was collected (DUP01_071017 and MW16_071017). For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than $\pm 1X$ the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 35%. Sulfate and dissolved iron did not meet the precision criteria.

Sample results reported above the range of the instrument calibration reported by the laboratory as "E" qualified are qualified as "J", for estimated.

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. The data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

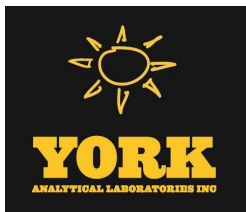


Emily Strake, CEP

Senior Project Chemist/Risk Assessor

APPENDIX C

LABORATORY ANALYTICAL REPORTS



Technical Report

prepared for:

Langan Engineering & Environmental Services (NYC)

21 Penn Plaza, 360 West 31st Street

New York NY, 10001

Attention: Brian Gochenaur

Report Date: 04/04/2017

Client Project ID: 170264501

York Project (SDG) No.: 17C1049

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

120 RESEARCH DRIVE
www.YORKLAB.com

STRATFORD, CT 06615
(203) 325-1371



132-02 89th AVENUE
FAX (203) 357-0166

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 04/04/2017
Client Project ID: 170264501
York Project (SDG) No.: 17C1049

Langan Engineering & Environmental Services (NYC)
21 Penn Plaza, 360 West 31st Street
New York NY, 10001
Attention: Brian Gochenaur

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 March 28, 2017 and listed below. The project was identified as your project: **170264501**.

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>
17C1049-01	MW16_032817	Water	03/28/2017	03/28/2017
17C1049-02	MW07_032817	Water	03/28/2017	03/28/2017
17C1049-03	MW05_032817	Water	03/28/2017	03/28/2017
17C1049-04	DUP01_032817	Water	03/28/2017	03/28/2017
17C1049-05	TB01_032817	Water	03/28/2017	03/28/2017

General Notes for York Project (SDG) No.: 17C1049

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.
9. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

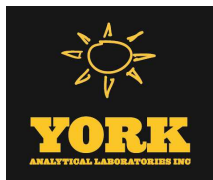
Approved By:



Benjamin Gulizia
Laboratory Director

Date: 04/04/2017





Sample Information

Client Sample ID: MW16_032817

York Sample ID: 17C1049-01

York Project (SDG) No.

17C1049

Client Project ID

170264501

Matrix

Water

Collection Date/Time

March 28, 2017 9:20 am

Date Received

03/28/2017

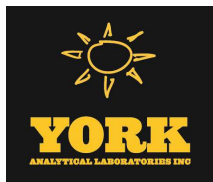
Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
78-93-3	2-Butanone	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS



Sample Information

Client Sample ID: MW16_032817

York Sample ID: 17C1049-01

York Project (SDG) No.

17C1049

Client Project ID

170264501

Matrix

Water

Collection Date/Time

March 28, 2017 9:20 am

Date Received

03/28/2017

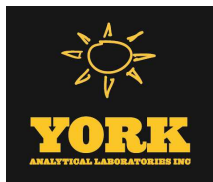
Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	1.2	SCAL- E, J	ug/L	1.0	2.0	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
107-02-8	Acrolein	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
156-59-2	cis-1,2-Dichloroethylene	25		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 17:08	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 17:08	SS



Sample Information

Client Sample ID: MW16_032817

York Sample ID: 17C1049-01

York Project (SDG) No.

17C1049

Client Project ID

170264501

Matrix

Water

Collection Date/Time

March 28, 2017 9:20 am

Date Received

03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	04/02/2017 11:15	04/02/2017 17:08	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/02/2017 11:15	04/02/2017 17:08	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
127-18-4	Tetrachloroethylene	33		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
79-01-6	Trichloroethylene	2.9		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
75-01-4	Vinyl Chloride	0.86		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/02/2017 11:15	04/02/2017 17:08	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	99.4 %	69-130								
2037-26-5	Surrogate: Toluene-d8	94.0 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	99.1 %	79-122								



Sample Information

Client Sample ID: MW16_032817

York Sample ID: 17C1049-01

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 9:20 am

Date Received
03/28/2017

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	1600		ug/L	100	100	10	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:08	RQB
74-84-0	* Ethane	ND		ug/L	100	100	10	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:08	RQB
74-85-1	* Ethylene (Ethene)	ND		ug/L	100	100	10	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:08	RQB

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	4.28		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 09:49	03/29/2017 15:27	KV

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	2.35		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 09:42	03/29/2017 14:11	KV

Chloride

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	Chloride	82.4		mg/L	0.0690	0.500	1	EPA 300.0 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 23:04	03/29/2017 23:04	DM1

Nitrite as N

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	0.392		mg/L	0.00400	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	03/29/2017 23:04	03/29/2017 23:04	DM1

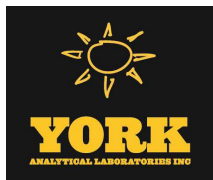
Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	205		mg/L	0.0860	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/29/2017 23:04	03/29/2017 23:04	DM1



Sample Information

Client Sample ID: MW16_032817

York Sample ID: 17C1049-01

York Project (SDG) No.

17C1049

Client Project ID

170264501

Matrix

Water

Collection Date/Time

March 28, 2017 9:20 am

Date Received

03/28/2017

Alkalinity, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Alkalinity, total	460		mg/L	2.00	2.00	1	SM 2320B	04/04/2017 09:52	04/04/2017 16:26	PAM
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Salinity

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Salinity	ND		parts/thous and		0.100	1	SM 2520B	04/04/2017 15:11	04/04/2017 16:19	PAM
Certifications:											

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	5.79		mg/L	1.00	1.00	1	SM 5310C	03/31/2017 10:44	03/31/2017 18:56	AD
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Sample Information

Client Sample ID: MW07_032817

York Sample ID: 17C1049-02

York Project (SDG) No.

17C1049

Client Project ID

170264501

Matrix

Water

Collection Date/Time

March 28, 2017 2:45 pm

Date Received

03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 18:50	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 18:50	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 18:50	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 18:50	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 18:50	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 18:50	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 18:50	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											



Sample Information

Client Sample ID: MW07_032817

York Sample ID: 17C1049-02

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 2:45 pm

Date Received
03/28/2017

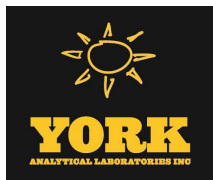
Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-61-6	1,2,3-Trichlorobenzene	0.56	CCV-E, J, B	ug/L	0.20	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
78-93-3	2-Butanone	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
107-02-8	Acrolein	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS



Sample Information

Client Sample ID: MW07_032817

York Sample ID: 17C1049-02

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 2:45 pm

Date Received
03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	04/02/2017 11:15	04/02/2017 18:50	SS



Sample Information

Client Sample ID: MW07_032817

York Sample ID: 17C1049-02

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 2:45 pm

Date Received
03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/02/2017 11:15	04/02/2017 18:50	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
75-65-0	tert-Butyl alcohol (TBA)	2.0		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
127-18-4	Tetrachloroethylene	32		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
79-01-6	Trichloroethylene	0.63		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/02/2017 11:15	04/02/2017 18:50	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	101 %	69-130								
2037-26-5	Surrogate: Toluene-d8	94.2 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	93.5 %	79-122								

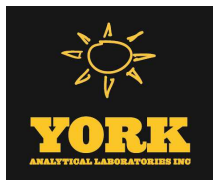
Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:18	RQB
74-84-0	* Ethane	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:18	RQB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:18	RQB



Sample Information

Client Sample ID: MW07_032817

York Sample ID: 17C1049-02

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

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March 28, 2017 2:45 pm

Date Received
03/28/2017

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	5.84		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 09:49	03/29/2017 15:45	KV

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.253		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 09:42	03/29/2017 14:29	KV

Chloride

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	Chloride	2810		mg/L	6.90	50.0	100	EPA 300.0 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/31/2017 23:29	03/31/2017 23:29	DM1

Nitrite as N

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.0400	0.500	10	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	03/29/2017 16:26	03/29/2017 16:26	DM1

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	62.7		mg/L	0.860	10.0	10	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/29/2017 16:26	03/29/2017 16:26	DM1

Alkalinity, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Alkalinity, total	365		mg/L	2.00	2.00	1	SM 2320B Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	04/04/2017 09:52	04/04/2017 16:26	PAM

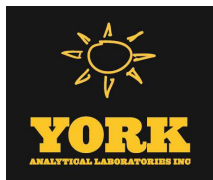
Salinity

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: MW07_032817

York Sample ID: 17C1049-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1049

170264501

Water

March 28, 2017 2:45 pm

03/28/2017

Salinity

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
* Salinity		4.20		parts/thous and		0.100	1	SM 2520B Certifications:	04/04/2017 15:11	04/04/2017 16:19	PAM

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
Total Organic Carbon (TOC)		10.8		mg/L	1.00	1.00	1	SM 5310C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/31/2017 10:44	03/31/2017 18:56	AD

Sample Information

Client Sample ID: MW05_032817

York Sample ID: 17C1049-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1049

170264501

Water

March 28, 2017 2:20 pm

03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS



Sample Information

Client Sample ID: MW05_032817

York Sample ID: 17C1049-03

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 2:20 pm

Date Received
03/28/2017

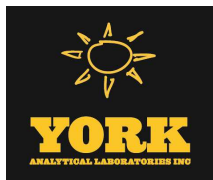
Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
78-93-3	2-Butanone	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
107-02-8	Acrolein	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS



Sample Information

Client Sample ID: MW05_032817

York Sample ID: 17C1049-03

York Project (SDG) No.

17C1049

Client Project ID

170264501

Matrix

Water

Collection Date/Time

March 28, 2017 2:20 pm

Date Received

03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
67-66-3	Chloroform	0.62		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	04/02/2017 11:15	04/02/2017 19:15	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/02/2017 11:15	04/02/2017 19:15	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS



Sample Information

Client Sample ID: MW05_032817

York Sample ID: 17C1049-03

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 2:20 pm

Date Received
03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-65-0	tert-Butyl alcohol (TBA)	1.9	J	ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
127-18-4	Tetrachloroethylene	17		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
79-01-6	Trichloroethylene	0.45	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/02/2017 11:15	04/02/2017 19:15	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	104 %	69-130								
2037-26-5	Surrogate: Toluene-d8	95.7 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	100 %	79-122								

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 15:45	RQB
74-84-0	* Ethane	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 15:45	RQB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 15:45	RQB

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	2.33		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 09:49	03/29/2017 15:50	KV



Sample Information

Client Sample ID: MW05_032817

York Sample ID: 17C1049-03

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 2:20 pm

Date Received
03/28/2017

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.107		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 09:42	03/29/2017 14:35	KV

Chloride

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	Chloride	227		mg/L	0.690	5.00	10	EPA 300.0 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 16:47	03/29/2017 16:47	DM1

Nitrite as N

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.0400	0.500	10	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	03/29/2017 16:47	03/29/2017 16:47	DM1

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	136		mg/L	0.860	10.0	10	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/29/2017 16:47	03/29/2017 16:47	DM1

Alkalinity, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Alkalinity, total	175		mg/L	2.00	2.00	1	SM 2320B Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	04/04/2017 09:52	04/04/2017 16:26	PAM

Salinity

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Salinity	ND		parts/thous and		0.100	1	SM 2520B Certifications:	04/04/2017 15:11	04/04/2017 16:19	PAM

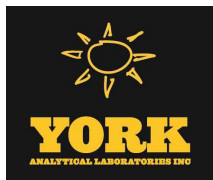
Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	5.52		mg/L	1.00	1.00	1	SM 5310C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/31/2017 10:44	03/31/2017 18:56	AD



Sample Information

Client Sample ID: DUP01_032817

York Sample ID: 17C1049-04

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 12:00 am

Date Received
03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
78-93-3	2-Butanone	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS



Sample Information

Client Sample ID: DUP01_032817

York Sample ID: 17C1049-04

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 12:00 am

Date Received
03/28/2017

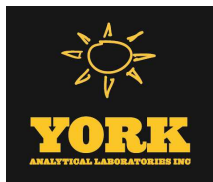
Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	1.2	SCAL- E, J	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
107-02-8	Acrolein	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
156-59-2	cis-1,2-Dichloroethylene	23		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS



Sample Information

Client Sample ID: DUP01_032817

York Sample ID: 17C1049-04

York Project (SDG) No.

17C1049

Client Project ID

170264501

Matrix

Water

Collection Date/Time

March 28, 2017 12:00 am

Date Received

03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	04/02/2017 11:15	04/02/2017 19:41	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/02/2017 11:15	04/02/2017 19:41	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
127-18-4	Tetrachloroethylene	40		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
79-01-6	Trichloroethylene	2.8		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
75-01-4	Vinyl Chloride	0.76		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/02/2017 11:15	04/02/2017 19:41	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	98.2 %	69-130								
2037-26-5	Surrogate: Toluene-d8	93.6 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	98.4 %	79-122								



Sample Information

Client Sample ID: DUP01_032817

York Sample ID: 17C1049-04

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 12:00 am

Date Received
03/28/2017

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	3000		ug/L	500	500	50	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 15:51	RQB
74-84-0	* Ethane	ND		ug/L	500	500	50	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 15:51	RQB
74-85-1	* Ethylene (Ethene)	ND		ug/L	500	500	50	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 15:51	RQB

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	4.61		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 09:49	03/29/2017 16:08	KV

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	1.79		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 09:42	03/29/2017 14:40	KV

Chloride

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	Chloride	82.8		mg/L	0.690	5.00	10	EPA 300.0 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/29/2017 17:08	03/29/2017 17:08	DM1

Nitrite as N

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	0.496		mg/L	0.0400	0.500	10	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	03/29/2017 17:08	03/29/2017 17:08	DM1

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	271		mg/L	0.860	10.0	10	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/29/2017 17:08	03/29/2017 17:08	DM1



Sample Information

Client Sample ID: DUP01_032817

York Sample ID: 17C1049-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1049

170264501

Water

March 28, 2017 12:00 am

03/28/2017

Alkalinity, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Alkalinity, total	450		mg/L	2.00	2.00	1	SM 2320B	04/04/2017 09:52	04/04/2017 16:26	PAM
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Salinity

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Salinity	ND		parts/thous and		0.100	1	SM 2520B	04/04/2017 15:11	04/04/2017 16:19	PAM
Certifications:											

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	6.03		mg/L	1.00	1.00	1	SM 5310C	03/31/2017 10:44	03/31/2017 18:56	AD
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Sample Information

Client Sample ID: TB01_032817

York Sample ID: 17C1049-05

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1049

170264501

Water

March 28, 2017 3:15 pm

03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 20:06	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 20:06	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 20:06	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 20:06	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 20:06	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 20:06	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/02/2017 11:15	04/02/2017 20:06	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											



Sample Information

Client Sample ID: TB01_032817

York Sample ID: 17C1049-05

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

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March 28, 2017 3:15 pm

Date Received
03/28/2017

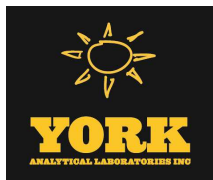
Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
78-93-3	2-Butanone	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
107-02-8	Acrolein	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS



Sample Information

Client Sample ID: TB01_032817

York Sample ID: 17C1049-05

York Project (SDG) No.

17C1049

Client Project ID

170264501

Matrix

Water

Collection Date/Time

March 28, 2017 3:15 pm

Date Received

03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 CTDOH,NELAC-NY10854,NJDEP	04/02/2017 20:06	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/02/2017 11:15 NELAC-NY10854	04/02/2017 20:06	SS



Sample Information

Client Sample ID: TB01_032817

York Sample ID: 17C1049-05

York Project (SDG) No.
17C1049

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 28, 2017 3:15 pm

Date Received
03/28/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/02/2017 11:15	04/02/2017 20:06	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/02/2017 11:15	04/02/2017 20:06	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	104 %	69-130								
2037-26-5	Surrogate: Toluene-d8	95.3 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	98.4 %	79-122								



Analytical Batch Summary

Batch ID: BC71313

Preparation Method: EPA 3015A

Prepared By: ALD

YORK Sample ID	Client Sample ID	Preparation Date
17C1049-01	MW16_032817	03/29/17
17C1049-02	MW07_032817	03/29/17
17C1049-03	MW05_032817	03/29/17
17C1049-04	DUP01_032817	03/29/17
BC71313-BLK1	Blank	03/29/17
BC71313-DUP1	Duplicate	03/29/17
BC71313-MS1	Matrix Spike	03/29/17
BC71313-SRM1	Reference	03/29/17

Batch ID: BC71316

Preparation Method: EPA 3015A

Prepared By: ALD

YORK Sample ID	Client Sample ID	Preparation Date
17C1049-01	MW16_032817	03/29/17
17C1049-02	MW07_032817	03/29/17
17C1049-03	MW05_032817	03/29/17
17C1049-04	DUP01_032817	03/29/17
BC71316-BLK1	Blank	03/29/17
BC71316-DUP1	Duplicate	03/29/17
BC71316-MS1	Matrix Spike	03/29/17
BC71316-SRM1	Reference	03/29/17

Batch ID: BC71393

Preparation Method: EPA 300

Prepared By: DM1

YORK Sample ID	Client Sample ID	Preparation Date
17C1049-01	MW16_032817	03/29/17
17C1049-02	MW07_032817	03/29/17
17C1049-03	MW05_032817	03/29/17
17C1049-04	DUP01_032817	03/29/17
BC71393-BLK1	Blank	03/29/17
BC71393-BS1	LCS	03/29/17
BC71393-SRM1	Reference	03/29/17

Batch ID: BC71394

Preparation Method: EPA 300

Prepared By: DM1

YORK Sample ID	Client Sample ID	Preparation Date
17C1049-01	MW16_032817	03/29/17
BC71394-BLK1	Blank	03/29/17
BC71394-BS1	LCS	03/30/17
BC71394-DUP1	Duplicate	03/29/17
BC71394-MS1	Matrix Spike	03/29/17
BC71394-SRM1	Reference	03/29/17

**Batch ID:** BC71467**Preparation Method:** Analysis Preparation**Prepared By:** AD

YORK Sample ID	Client Sample ID	Preparation Date
17C1049-01	MW16_032817	03/31/17
17C1049-02	MW07_032817	03/31/17
17C1049-03	MW05_032817	03/31/17
17C1049-04	DUP01_032817	03/31/17
BC71467-BLK1	Blank	03/31/17
BC71467-BS1	LCS	03/31/17
BC71467-DUP1	Duplicate	03/31/17
BC71467-MS1	Matrix Spike	03/31/17

Batch ID: BD70001**Preparation Method:** EPA 5030B**Prepared By:** RDS

YORK Sample ID	Client Sample ID	Preparation Date
17C1049-01	MW16_032817	04/02/17
17C1049-02	MW07_032817	04/02/17
17C1049-03	MW05_032817	04/02/17
17C1049-04	DUP01_032817	04/02/17
17C1049-05	TB01_032817	04/02/17
BD70001-BLK1	Blank	04/02/17
BD70001-BS1	LCS	04/02/17
BD70001-BSD1	LCS Dup	04/02/17
BD70001-MS1	Matrix Spike	04/02/17
BD70001-MSD1	Matrix Spike Dup	04/02/17

Batch ID: BD70031**Preparation Method:** EPA 300**Prepared By:** DM1

YORK Sample ID	Client Sample ID	Preparation Date
17C1049-02	MW07_032817	03/31/17
BD70031-BLK1	Blank	03/31/17
BD70031-BS1	LCS	03/31/17
BD70031-SRM1	Reference	03/31/17

Batch ID: BD70089**Preparation Method:** Preparation for GC Analysis**Prepared By:** RQB

YORK Sample ID	Client Sample ID	Preparation Date
17C1049-01	MW16_032817	04/04/17
17C1049-02	MW07_032817	04/04/17
17C1049-03	MW05_032817	04/04/17
17C1049-04	DUP01_032817	04/04/17
BD70089-BLK1	Blank	04/04/17
BD70089-DUP1	Duplicate	04/04/17

Batch ID: BD70091**Preparation Method:** Analysis Preparation**Prepared By:** PAM

YORK Sample ID	Client Sample ID	Preparation Date
17C1049-01	MW16_032817	04/04/17
17C1049-02	MW07_032817	04/04/17



17C1049-03	MW05_032817	04/04/17
17C1049-04	DUP01_032817	04/04/17
BD70091-DUP1	Duplicate	04/04/17
BD70091-SRM1	Reference	04/04/17

Batch ID: BD70120 **Preparation Method:** Analysis Preparation **Prepared By:** AD

YORK Sample ID	Client Sample ID	Preparation Date
17C1049-01	MW16_032817	04/04/17
17C1049-02	MW07_032817	04/04/17
17C1049-03	MW05_032817	04/04/17
17C1049-04	DUP01_032817	04/04/17
BD70120-DUP1	Duplicate	04/04/17



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD70001 - EPA 5030B											
Blank (BD70001-BLK1)										Prepared & Analyzed: 04/02/2017	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L								
1,1,1-Trichloroethane	ND	0.50	"								
1,1,2,2-Tetrachloroethane	ND	0.50	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"								
1,1,2-Trichloroethane	ND	0.50	"								
1,1-Dichloroethane	ND	0.50	"								
1,1-Dichloroethylene	ND	0.50	"								
1,2,3-Trichlorobenzene	0.41	0.50	"								
1,2,3-Trichloropropane	ND	0.50	"								
1,2,4-Trichlorobenzene	ND	0.50	"								
1,2,4-Trimethylbenzene	ND	0.50	"								
1,2-Dibromo-3-chloropropane	ND	0.50	"								
1,2-Dibromoethane	ND	0.50	"								
1,2-Dichlorobenzene	ND	0.50	"								
1,2-Dichloroethane	ND	0.50	"								
1,2-Dichloropropane	ND	0.50	"								
1,3,5-Trimethylbenzene	ND	0.50	"								
1,3-Dichlorobenzene	ND	0.50	"								
1,4-Dichlorobenzene	ND	0.50	"								
1,4-Dioxane	ND	40	"								
2-Butanone	ND	0.50	"								
2-Hexanone	ND	0.50	"								
4-Methyl-2-pentanone	ND	0.50	"								
Acetone	ND	2.0	"								
Acrolein	ND	0.50	"								
Acrylonitrile	ND	0.50	"								
Benzene	ND	0.50	"								
Bromochloromethane	ND	0.50	"								
Bromodichloromethane	ND	0.50	"								
Bromoform	ND	0.50	"								
Bromomethane	ND	0.50	"								
Carbon disulfide	ND	0.50	"								
Carbon tetrachloride	ND	0.50	"								
Chlorobenzene	ND	0.50	"								
Chloroethane	ND	0.50	"								
Chloroform	ND	0.50	"								
Chloromethane	ND	0.50	"								
cis-1,2-Dichloroethylene	ND	0.50	"								
cis-1,3-Dichloropropylene	ND	0.50	"								
Cyclohexane	ND	0.50	"								
Dibromochloromethane	ND	0.50	"								
Dibromomethane	ND	0.50	"								
Dichlorodifluoromethane	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Hexachlorobutadiene	ND	0.50	"								
Isopropylbenzene	ND	0.50	"								
Methyl acetate	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Methylcyclohexane	ND	0.50	"								
Methylene chloride	ND	2.0	"								



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BD70001 - EPA 5030B

Blank (BD70001-BLK1)

Prepared & Analyzed: 04/02/2017

n-Butylbenzene	ND	0.50	ug/L
n-Propylbenzene	ND	0.50	"
o-Xylene	ND	0.50	"
p- & m- Xylenes	ND	1.0	"
p-Isopropyltoluene	ND	0.50	"
sec-Butylbenzene	ND	0.50	"
Styrene	ND	0.50	"
tert-Butyl alcohol (TBA)	ND	1.0	"
tert-Butylbenzene	ND	0.50	"
Tetrachloroethylene	ND	0.50	"
Toluene	ND	0.50	"
trans-1,2-Dichloroethylene	ND	0.50	"
trans-1,3-Dichloropropylene	ND	0.50	"
Trichloroethylene	ND	0.50	"
Trichlorofluoromethane	ND	0.50	"
Vinyl Chloride	ND	0.50	"
Xylenes, Total	ND	1.5	"

Surrogate: 1,2-Dichloroethane-d4	10.5	"	10.0	105	69-130
Surrogate: Toluene-d8	9.29	"	10.0	92.9	81-117
Surrogate: p-Bromofluorobenzene	9.82	"	10.0	98.2	79-122

LCS (BD70001-BS1)

Prepared & Analyzed: 04/02/2017

1,1,1,2-Tetrachloroethane	10	ug/L	10.0	103	82-126
1,1,1-Trichloroethane	12	"	10.0	116	78-136
1,1,2,2-Tetrachloroethane	11	"	10.0	108	76-129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	12	"	10.0	118	54-165
1,1,2-Trichloroethane	10	"	10.0	102	82-123
1,1-Dichloroethane	12	"	10.0	117	82-129
1,1-Dichloroethylene	12	"	10.0	115	68-138
1,2,3-Trichlorobenzene	8.7	"	10.0	87.1	76-136
1,2,3-Trichloropropane	10	"	10.0	102	77-128
1,2,4-Trichlorobenzene	8.6	"	10.0	86.0	76-137
1,2,4-Trimethylbenzene	11	"	10.0	115	82-132
1,2-Dibromo-3-chloropropane	8.7	"	10.0	86.9	45-147
1,2-Dibromoethane	9.7	"	10.0	97.2	83-124
1,2-Dichlorobenzene	10	"	10.0	105	79-123
1,2-Dichloroethane	11	"	10.0	114	73-132
1,2-Dichloropropane	11	"	10.0	108	78-126
1,3,5-Trimethylbenzene	11	"	10.0	113	80-131
1,3-Dichlorobenzene	11	"	10.0	108	86-122
1,4-Dichlorobenzene	11	"	10.0	109	85-124
1,4-Dioxane	270	"	200	136	10-349
2-Butanone	12	"	10.0	121	49-152
2-Hexanone	11	"	10.0	105	51-146
4-Methyl-2-pentanone	11	"	10.0	109	57-145
Acetone	11	"	10.0	108	14-150
Acrolein	11	"	10.0	111	10-153
Acrylonitrile	13	"	10.0	130	51-150
Benzene	11	"	10.0	114	85-126
Bromochloromethane	13	"	10.0	126	77-128
Bromodichloromethane	10	"	10.0	102	79-128



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BD70001 - EPA 5030B

LCS (BD70001-BS1)

Prepared & Analyzed: 04/02/2017

Bromoform	8.6		ug/L	10.0		86.2	78-133				
Bromomethane	3.2		"	10.0		31.5	43-168	Low Bias			
Carbon disulfide	11		"	10.0		111	68-146				
Carbon tetrachloride	11		"	10.0		114	77-141				
Chlorobenzene	10		"	10.0		104	88-120				
Chloroethane	14		"	10.0		139	65-136	High Bias			
Chloroform	11		"	10.0		113	82-128				
Chloromethane	10		"	10.0		105	43-155				
cis-1,2-Dichloroethylene	12		"	10.0		116	83-129				
cis-1,3-Dichloropropylene	10		"	10.0		104	80-131				
Cyclohexane	13		"	10.0		129	63-149				
Dibromochloromethane	10		"	10.0		102	80-130				
Dibromomethane	10		"	10.0		104	72-134				
Dichlorodifluoromethane	14		"	10.0		135	44-144				
Ethyl Benzene	11		"	10.0		108	80-131				
Hexachlorobutadiene	8.3		"	10.0		82.9	67-146				
Isopropylbenzene	11		"	10.0		113	76-140				
Methyl acetate	12		"	10.0		124	51-139				
Methyl tert-butyl ether (MTBE)	10		"	10.0		103	76-135				
Methylcyclohexane	11		"	10.0		109	72-143				
Methylene chloride	12		"	10.0		120	55-137				
n-Butylbenzene	11		"	10.0		114	79-132				
n-Propylbenzene	11		"	10.0		112	78-133				
o-Xylene	11		"	10.0		106	78-130				
p- & m- Xylenes	22		"	20.0		110	77-133				
p-Isopropyltoluene	11		"	10.0		107	81-136				
sec-Butylbenzene	11		"	10.0		114	79-137				
Styrene	10		"	10.0		104	67-132				
tert-Butyl alcohol (TBA)	12		"	10.0		118	25-162				
tert-Butylbenzene	10		"	10.0		103	77-138				
Tetrachloroethylene	9.9		"	10.0		98.6	82-131				
Toluene	11		"	10.0		106	80-127				
trans-1,2-Dichloroethylene	12		"	10.0		116	80-132				
trans-1,3-Dichloropropylene	10		"	10.0		99.7	78-131				
Trichloroethylene	9.7		"	10.0		97.4	82-128				
Trichlorofluoromethane	13		"	10.0		135	67-139				
Vinyl Chloride	14		"	10.0		138	58-145				
Surrogate: 1,2-Dichloroethane-d4	10.3		"	10.0		103	69-130				
Surrogate: Toluene-d8	9.67		"	10.0		96.7	81-117				
Surrogate: p-Bromofluorobenzene	9.67		"	10.0		96.7	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD70001 - EPA 5030B											
LCS Dup (BD70001-BSD1)						Prepared & Analyzed: 04/02/2017					
1,1,1,2-Tetrachloroethane	11		ug/L	10.0		107	82-126		3.91	30	
1,1,1-Trichloroethane	12		"	10.0		118	78-136		1.62	30	
1,1,2,2-Tetrachloroethane	11		"	10.0		106	76-129		2.34	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	12		"	10.0		119	54-165		1.27	30	
1,1,2-Trichloroethane	11		"	10.0		106	82-123		4.23	30	
1,1-Dichloroethane	12		"	10.0		118	82-129		1.02	30	
1,1-Dichloroethylene	12		"	10.0		118	68-138		2.23	30	
1,2,3-Trichlorobenzene	11		"	10.0		109	76-136		22.5	30	
1,2,3-Trichloropropane	10		"	10.0		101	77-128		1.28	30	
1,2,4-Trichlorobenzene	9.6		"	10.0		96.1	76-137		11.1	30	
1,2,4-Trimethylbenzene	12		"	10.0		116	82-132		1.38	30	
1,2-Dibromo-3-chloropropane	10		"	10.0		100	45-147		14.2	30	
1,2-Dibromoethane	10		"	10.0		101	83-124		3.83	30	
1,2-Dichlorobenzene	11		"	10.0		108	79-123		3.29	30	
1,2-Dichloroethane	12		"	10.0		117	73-132		2.17	30	
1,2-Dichloropropane	11		"	10.0		114	78-126		5.05	30	
1,3,5-Trimethylbenzene	11		"	10.0		114	80-131		0.966	30	
1,3-Dichlorobenzene	11		"	10.0		109	86-122		0.737	30	
1,4-Dichlorobenzene	11		"	10.0		109	85-124		0.550	30	
1,4-Dioxane	250		"	200		123	10-349		9.61	30	
2-Butanone	13		"	10.0		127	49-152		4.91	30	
2-Hexanone	11		"	10.0		111	51-146		5.00	30	
4-Methyl-2-pentanone	12		"	10.0		118	57-145		8.55	30	
Acetone	12		"	10.0		116	14-150		6.34	30	
Acrolein	10		"	10.0		102	10-153		8.15	30	
Acrylonitrile	13		"	10.0		134	51-150		3.03	30	
Benzene	12		"	10.0		118	85-126		3.44	30	
Bromochloromethane	12		"	10.0		125	77-128		1.27	30	
Bromodichloromethane	11		"	10.0		105	79-128		3.28	30	
Bromoform	8.9		"	10.0		89.1	78-133		3.31	30	
Bromomethane	3.3		"	10.0		32.7	43-168	Low Bias	3.74	30	
Carbon disulfide	11		"	10.0		114	68-146		2.40	30	
Carbon tetrachloride	12		"	10.0		116	77-141		1.91	30	
Chlorobenzene	10		"	10.0		105	88-120		0.383	30	
Chloroethane	14		"	10.0		137	65-136	High Bias	1.09	30	
Chloroform	11		"	10.0		113	82-128		0.177	30	
Chloromethane	11		"	10.0		113	43-155		7.52	30	
cis-1,2-Dichloroethylene	12		"	10.0		119	83-129		2.90	30	
cis-1,3-Dichloropropylene	11		"	10.0		108	80-131		4.62	30	
Cyclohexane	13		"	10.0		132	63-149		1.69	30	
Dibromochloromethane	10		"	10.0		101	80-130		0.989	30	
Dibromomethane	11		"	10.0		108	72-134		2.93	30	
Dichlorodifluoromethane	14		"	10.0		136	44-144		0.516	30	
Ethyl Benzene	11		"	10.0		110	80-131		2.57	30	
Hexachlorobutadiene	9.3		"	10.0		92.8	67-146		11.3	30	
Isopropylbenzene	11		"	10.0		115	76-140		2.02	30	
Methyl acetate	12		"	10.0		124	51-139		0.645	30	
Methyl tert-butyl ether (MTBE)	11		"	10.0		107	76-135		3.52	30	
Methylcyclohexane	11		"	10.0		114	72-143		4.85	30	
Methylene chloride	12		"	10.0		124	55-137		2.95	30	
n-Butylbenzene	12		"	10.0		115	79-132		0.961	30	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BD70001 - EPA 5030B

LCS Dup (BD70001-BSD1)

Prepared & Analyzed: 04/02/2017

n-Propylbenzene	11		ug/L	10.0		114	78-133		1.76	30	
o-Xylene	11		"	10.0		108	78-130		2.33	30	
p- & m- Xylenes	23		"	20.0		113	77-133		3.19	30	
p-Isopropyltoluene	11		"	10.0		107	81-136		0.373	30	
sec-Butylbenzene	11		"	10.0		115	79-137		0.876	30	
Styrene	11		"	10.0		108	67-132		3.30	30	
tert-Butyl alcohol (TBA)	12		"	10.0		116	25-162		1.63	30	
tert-Butylbenzene	11		"	10.0		106	77-138		2.59	30	
Tetrachloroethylene	10		"	10.0		104	82-131		5.71	30	
Toluene	11		"	10.0		112	80-127		6.05	30	
trans-1,2-Dichloroethylene	12		"	10.0		118	80-132		1.28	30	
trans-1,3-Dichloropropylene	10		"	10.0		100	78-131		0.300	30	
Trichloroethylene	10		"	10.0		104	82-128		6.17	30	
Trichlorofluoromethane	13		"	10.0		133	67-139		1.12	30	
Vinyl Chloride	14		"	10.0		142	58-145		3.07	30	
Surrogate: 1,2-Dichloroethane-d4	9.87		"	10.0		98.7	69-130				
Surrogate: Toluene-d8	9.75		"	10.0		97.5	81-117				
Surrogate: p-Bromofluorobenzene	9.63		"	10.0		96.3	79-122				

Matrix Spike (BD70001-MS1)

*Source sample: 17C1049-01 (MW16_032817)

Prepared & Analyzed: 04/02/2017

1,1,1,2-Tetrachloroethane	11		ug/L	10.0	ND	106	45-161				
1,1,1-Trichloroethane	11		"	10.0	ND	114	70-146				
1,1,2,2-Tetrachloroethane	11		"	10.0	ND	112	74-121				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.6		"	10.0	ND	96.4	21-217				
1,1,2-Trichloroethane	10		"	10.0	ND	104	59-146				
1,1-Dichloroethane	11		"	10.0	ND	110	54-146				
1,1-Dichloroethylene	10		"	10.0	ND	104	44-165				
1,2,3-Trichlorobenzene	6.7		"	10.0	ND	67.3	40-161				
1,2,3-Trichloropropane	10		"	10.0	ND	105	74-127				
1,2,4-Trichlorobenzene	7.6		"	10.0	ND	76.1	41-161				
1,2,4-Trimethylbenzene	12		"	10.0	ND	120	72-129				
1,2-Dibromo-3-chloropropane	8.9		"	10.0	ND	89.0	31-151				
1,2-Dibromoethane	9.7		"	10.0	ND	97.1	75-125				
1,2-Dichlorobenzene	11		"	10.0	ND	107	63-122				
1,2-Dichloroethane	11		"	10.0	ND	105	68-131				
1,2-Dichloropropane	11		"	10.0	ND	105	77-121				
1,3,5-Trimethylbenzene	12		"	10.0	ND	121	69-126				
1,3-Dichlorobenzene	11		"	10.0	ND	111	74-119				
1,4-Dichlorobenzene	11		"	10.0	ND	112	70-124				
1,4-Dioxane	310		"	200	ND	157	10-310				
2-Butanone	15		"	10.0	ND	153	10-193				
2-Hexanone	11		"	10.0	ND	114	53-133				
4-Methyl-2-pentanone	11		"	10.0	ND	112	38-150				
Acetone	11		"	10.0	1.2	93.3	13-149				
Acrolein	11		"	10.0	ND	110	10-195				
Acrylonitrile	12		"	10.0	ND	115	37-165				
Benzene	11		"	10.0	ND	110	38-155				
Bromochloromethane	12		"	10.0	ND	116	75-121				
Bromodichloromethane	10		"	10.0	ND	101	70-129				
Bromoform	8.5		"	10.0	ND	85.1	66-136				
Bromomethane	2.7		"	10.0	ND	27.1	30-158	Low Bias			



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD70001 - EPA 5030B										
Matrix Spike (BD70001-MS1)	*Source sample: 17C1049-01 (MW16_032817)					Prepared & Analyzed: 04/02/2017				
Carbon disulfide	9.4		ug/L	10.0	ND	94.4	10-138			
Carbon tetrachloride	11		"	10.0	ND	111	71-146			
Chlorobenzene	10		"	10.0	ND	104	81-117			
Chloroethane	11		"	10.0	ND	113	51-145			
Chloroform	11		"	10.0	ND	108	80-124			
Chloromethane	8.1		"	10.0	ND	80.7	16-163			
cis-1,2-Dichloroethylene	35		"	10.0	25	108	76-125			
cis-1,3-Dichloropropylene	9.8		"	10.0	ND	97.6	58-131			
Cyclohexane	11		"	10.0	ND	113	70-130			
Dibromochloromethane	10		"	10.0	ND	99.9	71-129			
Dibromomethane	10		"	10.0	ND	99.7	76-120			
Dichlorodifluoromethane	7.3		"	10.0	ND	73.4	30-147			
Ethyl Benzene	11		"	10.0	ND	110	72-128			
Hexachlorobutadiene	7.2		"	10.0	ND	72.5	34-166			
Isopropylbenzene	12		"	10.0	ND	121	66-139			
Methyl acetate	10		"	10.0	ND	99.9	10-200			
Methyl tert-butyl ether (MTBE)	9.6		"	10.0	ND	96.2	75-128			
Methylcyclohexane	9.3		"	10.0	ND	92.6	70-130			
Methylene chloride	11		"	10.0	0.62	108	57-128			
n-Butylbenzene	11		"	10.0	ND	111	61-138			
n-Propylbenzene	12		"	10.0	ND	120	66-134			
o-Xylene	11		"	10.0	ND	108	69-126			
p- & m- Xylenes	22		"	20.0	ND	111	67-130			
p-Isopropyltoluene	11		"	10.0	ND	106	64-137			
sec-Butylbenzene	12		"	10.0	ND	118	53-155			
Styrene	10		"	10.0	ND	104	69-125			
tert-Butyl alcohol (TBA)	13		"	10.0	ND	131	10-130	High Bias		
tert-Butylbenzene	11		"	10.0	ND	113	65-139			
Tetrachloroethylene	41		"	10.0	33	82.6	64-139			
Toluene	11		"	10.0	ND	108	76-123			
trans-1,2-Dichloroethylene	11		"	10.0	ND	107	79-131			
trans-1,3-Dichloropropylene	9.8		"	10.0	ND	98.3	55-130			
Trichloroethylene	13		"	10.0	2.9	97.5	53-145			
Trichlorofluoromethane	11		"	10.0	ND	114	61-142			
Vinyl Chloride	12		"	10.0	0.86	107	31-165			
Surrogate: 1,2-Dichloroethane-d4	9.69		"	10.0		96.9	69-130			
Surrogate: Toluene-d8	9.56		"	10.0		95.6	81-117			
Surrogate: p-Bromofluorobenzene	9.89		"	10.0		98.9	79-122			



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD70001 - EPA 5030B											
Matrix Spike Dup (BD70001-MSD1)		*Source sample: 17C1049-01 (MW16_032817)					Prepared & Analyzed: 04/02/2017				
1,1,1,2-Tetrachloroethane	11		ug/L	10.0	ND	107	45-161		1.78	30	
1,1,1-Trichloroethane	11		"	10.0	ND	114	70-146		0.352	30	
1,1,2,2-Tetrachloroethane	11		"	10.0	ND	114	74-121		2.13	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.8		"	10.0	ND	98.5	21-217		2.15	30	
1,1,2-Trichloroethane	10		"	10.0	ND	103	59-146		0.484	30	
1,1-Dichloroethane	11		"	10.0	ND	112	54-146		1.81	30	
1,1-Dichloroethylene	11		"	10.0	ND	106	44-165		2.19	30	
1,2,3-Trichlorobenzene	14		"	10.0	ND	141	40-161		70.5	30	Non-dir.
1,2,3-Trichloropropane	11		"	10.0	ND	110	74-127		4.66	30	
1,2,4-Trichlorobenzene	11		"	10.0	ND	112	41-161		37.9	30	Non-dir.
1,2,4-Trimethylbenzene	12		"	10.0	ND	116	72-129		3.81	30	
1,2-Dibromo-3-chloropropane	11		"	10.0	ND	111	31-151		21.7	30	
1,2-Dibromoethane	10		"	10.0	ND	100	75-125		3.44	30	
1,2-Dichlorobenzene	11		"	10.0	ND	106	63-122		1.32	30	
1,2-Dichloroethane	11		"	10.0	ND	106	68-131		0.284	30	
1,2-Dichloropropane	11		"	10.0	ND	108	77-121		2.35	30	
1,3,5-Trimethylbenzene	12		"	10.0	ND	116	69-126		3.88	30	
1,3-Dichlorobenzene	11		"	10.0	ND	108	74-119		2.93	30	
1,4-Dichlorobenzene	11		"	10.0	ND	108	70-124		3.82	30	
1,4-Dioxane	350		"	200	ND	177	10-310		11.6	30	
2-Butanone	17		"	10.0	ND	170	10-193		10.6	30	
2-Hexanone	11		"	10.0	ND	114	53-133		0.263	30	
4-Methyl-2-pentanone	11		"	10.0	ND	114	38-150		2.13	30	
Acetone	9.4		"	10.0	1.2	81.6	13-149		13.4	30	
Acrolein	9.6		"	10.0	ND	96.3	10-195		13.5	30	
Acrylonitrile	11		"	10.0	ND	114	37-165		1.05	30	
Benzene	11		"	10.0	ND	112	38-155		1.17	30	
Bromochloromethane	12		"	10.0	ND	117	75-121		0.770	30	
Bromodichloromethane	10		"	10.0	ND	101	70-129		0.297	30	
Bromoform	9.0		"	10.0	ND	89.5	66-136		5.04	30	
Bromomethane	2.7		"	10.0	ND	27.4	30-158	Low Bias	1.10	30	
Carbon disulfide	9.8		"	10.0	ND	97.7	10-138		3.44	30	
Carbon tetrachloride	11		"	10.0	ND	112	71-146		0.628	30	
Chlorobenzene	11		"	10.0	ND	107	81-117		2.93	30	
Chloroethane	11		"	10.0	ND	113	51-145		0.620	30	
Chloroform	11		"	10.0	ND	108	80-124		0.186	30	
Chloromethane	8.6		"	10.0	ND	86.2	16-163		6.59	30	
cis-1,2-Dichloroethylene	34		"	10.0	25	97.9	76-125		10.0	30	
cis-1,3-Dichloropropylene	10		"	10.0	ND	104	58-131		5.96	30	
Cyclohexane	12		"	10.0	ND	116	70-130		2.97	30	
Dibromochloromethane	10		"	10.0	ND	103	71-129		2.86	30	
Dibromomethane	10		"	10.0	ND	102	76-120		2.08	30	
Dichlorodifluoromethane	7.7		"	10.0	ND	77.2	30-147		5.05	30	
Ethyl Benzene	11		"	10.0	ND	113	72-128		3.05	30	
Hexachlorobutadiene	9.6		"	10.0	ND	95.6	34-166		27.5	30	
Isopropylbenzene	11		"	10.0	ND	114	66-139		5.71	30	
Methyl acetate	9.8		"	10.0	ND	97.8	10-200		2.12	30	
Methyl tert-butyl ether (MTBE)	9.7		"	10.0	ND	97.1	75-128		0.931	30	
Methylcyclohexane	9.7		"	10.0	ND	96.6	70-130		4.23	30	
Methylene chloride	11		"	10.0	0.62	106	57-128		1.50	30	
n-Butylbenzene	11		"	10.0	ND	106	61-138		3.87	30	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BD70001 - EPA 5030B

Matrix Spike Dup (BD70001-MSD1)		*Source sample: 17C1049-01 (MW16_032817)					Prepared & Analyzed: 04/02/2017				
n-Propylbenzene	12		ug/L	10.0	ND	118	66-134		1.59	30	
o-Xylene	11		"	10.0	ND	111	69-126		2.47	30	
p- & m- Xylenes	23		"	20.0	ND	113	67-130		2.19	30	
p-Isopropyltoluene	10		"	10.0	ND	103	64-137		3.25	30	
sec-Butylbenzene	11		"	10.0	ND	114	53-155		3.19	30	
Styrene	11		"	10.0	ND	108	69-125		3.02	30	
tert-Butyl alcohol (TBA)	13		"	10.0	ND	127	10-130		3.18	30	
tert-Butylbenzene	11		"	10.0	ND	107	65-139		5.36	30	
Tetrachloroethylene	38		"	10.0	33	53.8	64-139	Low Bias	42.2	30	Non-dir.
Toluene	11		"	10.0	ND	111	76-123		2.47	30	
trans-1,2-Dichloroethylene	11		"	10.0	ND	108	79-131		1.49	30	
trans-1,3-Dichloropropylene	10		"	10.0	ND	102	55-130		3.50	30	
Trichloroethylene	13		"	10.0	2.9	97.7	53-145		0.205	30	
Trichlorofluoromethane	12		"	10.0	ND	116	61-142		1.39	30	
Vinyl Chloride	12		"	10.0	0.86	112	31-165		4.03	30	
Surrogate: 1,2-Dichloroethane-d4	9.88		"	10.0		98.8	69-130				
Surrogate: Toluene-d8	9.77		"	10.0		97.7	81-117				
Surrogate: p-Bromofluorobenzene	9.12		"	10.0		91.2	79-122				



Gas Chromatography/Flame Ionization Detector - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BD70089 - Preparation for GC Analysis

Blank (BD70089-BLK1)

Prepared & Analyzed: 04/04/2017

Methane	ND	10	ug/L
Ethane	ND	10	"
Ethylene (Ethene)	ND	10	"

Duplicate (BD70089-DUP1)

*Source sample: 17C1049-01 (MW16_032817)

Prepared & Analyzed: 04/04/2017

Methane	1400	100	ug/L	1600	10.6	30
Ethane	ND	100	"	ND		30
Ethylene (Ethene)	ND	100	"	ND		30



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	Limit	Flag
Batch BC71313 - EPA 3015A											
Blank (BC71313-BLK1)								Prepared & Analyzed: 03/29/2017			
Iron - Dissolved	ND	0.0200	mg/L								
Duplicate (BC71313-DUP1)								Prepared & Analyzed: 03/29/2017			
Iron - Dissolved	2.28	0.0222	mg/L		2.35				3.04	20	
Matrix Spike (BC71313-MS1)								Prepared & Analyzed: 03/29/2017			
Iron - Dissolved	3.50	0.0222	mg/L	1.11	2.35	104	75-125				
Reference (BC71313-SRM1)								Prepared & Analyzed: 03/29/2017			
Iron - Dissolved	0.775		ug/mL	0.759		102	84.9-115				
Batch BC71316 - EPA 3015A											
Blank (BC71316-BLK1)								Prepared & Analyzed: 03/29/2017			
Iron	ND	0.0200	mg/L								
Duplicate (BC71316-DUP1)								Prepared & Analyzed: 03/29/2017			
Iron	4.35	0.0222	mg/L		4.28				1.52	20	
Matrix Spike (BC71316-MS1)								Prepared & Analyzed: 03/29/2017			
Iron	5.40	0.0222	mg/L	1.11	4.28	101	75-125				
Reference (BC71316-SRM1)								Prepared & Analyzed: 03/29/2017			
Iron	0.720		ug/mL	0.759		94.9	84.9-115				



Anions by Ion Chromatography - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC71393 - EPA 300											
Blank (BC71393-BLK1)						Prepared & Analyzed: 03/29/2017					
Chloride	ND	0.500	mg/L								
Nitrite as N	ND	0.0500	"								
Sulfate	ND	1.00	"								
LCS (BC71393-BS1)						Prepared & Analyzed: 03/29/2017					
Chloride	9.42	0.500	mg/L	10.0		94.2	85-115				
Nitrite as N	9.51	0.0500	"	10.0		95.1	90-110				
Sulfate	9.78	1.00	"	10.0		97.8	85-115				
Reference (BC71393-SRM1)						Prepared & Analyzed: 03/29/2017					
Chloride	11.4		mg/L	11.3		101	90-110				
Nitrite as N	3.72		"	4.00		93.1	90-110				
Sulfate	7.53		"	6.95		108	90-110				
Batch BC71394 - EPA 300											
Blank (BC71394-BLK1)						Prepared & Analyzed: 03/29/2017					
Nitrite as N	ND	0.0500	mg/L								
LCS (BC71394-BS1)						Prepared & Analyzed: 03/30/2017					
Nitrite as N	9.30	0.0500	mg/L	10.0		93.0	90-110				
Duplicate (BC71394-DUP1)						Prepared & Analyzed: 03/29/2017					
*Source sample: 17C1049-01 (MW16_032817)											
Nitrite as N	0.395	0.0500	mg/L		0.392				0.585	15	
Matrix Spike (BC71394-MS1)						Prepared & Analyzed: 03/29/2017					
*Source sample: 17C1049-01 (MW16_032817)											
Nitrite as N	9.56	0.0500	mg/L	10.0	0.392	91.7	90-110				



Anions by Ion Chromatography - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BC71394 - EPA 300

Reference (BC71394-SRM1)

Prepared & Analyzed: 03/29/2017

Nitrite as N	3.61		mg/L	4.00		90.3	90-110				
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Batch BD70031 - EPA 300

Blank (BD70031-BLK1)

Prepared & Analyzed: 03/31/2017

Chloride	ND	0.500	mg/L								
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LCS (BD70031-BS1)

Prepared & Analyzed: 03/31/2017

Chloride	9.38	0.500	mg/L	10.0		93.8	85-115				
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Reference (BD70031-SRM1)

Prepared & Analyzed: 03/31/2017

Chloride	12.2		mg/L	11.3		108	90-110				
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Wet Chemistry Parameters - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC71467 - Analysis Preparation											
Blank (BC71467-BLK1)								Prepared & Analyzed: 03/31/2017			
Total Organic Carbon (TOC)	ND	1.00	mg/L								
LCS (BC71467-BS1)								Prepared & Analyzed: 03/31/2017			
Total Organic Carbon (TOC)	79.8	1.00	mg/L	78.3		102	79.5-125.1				
Duplicate (BC71467-DUP1) *Source sample: 17C1049-01 (MW16_032817)								Prepared & Analyzed: 03/31/2017			
Total Organic Carbon (TOC)	6.29	1.00	mg/L		5.79				8.28	20	
Matrix Spike (BC71467-MS1) *Source sample: 17C1049-01 (MW16_032817)								Prepared & Analyzed: 03/31/2017			
Total Organic Carbon (TOC)	27.4	1.00	mg/L	20.0	5.79	108	70-130				
Batch BD70091 - Analysis Preparation											
Duplicate (BD70091-DUP1) *Source sample: 17C1049-01 (MW16_032817)								Prepared & Analyzed: 04/04/2017			
Alkalinity, total	450	2.00	mg/L		460				2.20	15	
Reference (BD70091-SRM1)								Prepared & Analyzed: 04/04/2017			
Alkalinity, total	160	2.00	mg/L	160		100	90.6-111				
Batch BD70120 - Analysis Preparation											
Duplicate (BD70120-DUP1) *Source sample: 17C1049-01 (MW16_032817)								Prepared & Analyzed: 04/04/2017			
Salinity	ND	0.100	parts/thousan d		ND					15	



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
17C1049-01	MW16_032817	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17C1049-02	MW07_032817	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17C1049-03	MW05_032817	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17C1049-04	DUP01_032817	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17C1049-05	TB01_032817	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Notes and Definitions

SCAL-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.
*	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.



YORK ANALYTICAL LABORATORIES
120 RESEARCH DR.
STRAITFORD, CT 06615
(203) 325-1371
Fax (203) 357-0166

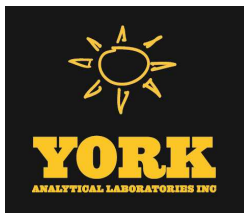
Field Chain-of-Custody Record

Page 1 of 1

York Project No. 17C1049

NOTE: York's Std. Terms & Conditions are listed on the back side of this document. This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions.

YOUR INFORMATION		Report To:		Invoice To:		YOUR PROJECT ID		Turn-Around Time		Report Type	
Company: <u>Lanigan</u>	Company: <u>SAFME</u>	Company: <u>SAFME</u>	Company: <u>SAFME</u>	Company: <u>SAFME</u>	Company: <u>SAFME</u>	Company: <u>SAFME</u>	Company: <u>SAFME</u>	Company: <u>SAFME</u>	Company: <u>SAFME</u>	Company: <u>SAFME</u>	Company: <u>SAFME</u>
Address: <u>300 W. 31st Street</u>	Address: <u>SAFME</u>	Address: <u>SAFME</u>	Address: <u>SAFME</u>	Address: <u>SAFME</u>	Address: <u>SAFME</u>	Address: <u>SAFME</u>	Address: <u>SAFME</u>	Address: <u>SAFME</u>	Address: <u>SAFME</u>	Address: <u>SAFME</u>	Address: <u>SAFME</u>
Phone No. <u>212-479-5400</u>	Phone No. <u>SAFME</u>	Phone No. <u>SAFME</u>	Phone No. <u>SAFME</u>	Phone No. <u>SAFME</u>	Phone No. <u>SAFME</u>	Phone No. <u>SAFME</u>	Phone No. <u>SAFME</u>	Phone No. <u>SAFME</u>	Phone No. <u>SAFME</u>	Phone No. <u>SAFME</u>	Phone No. <u>SAFME</u>
Contact Person: <u>Brian Grobman</u>	Contact Person: <u>SAFME</u>	Contact Person: <u>SAFME</u>	Contact Person: <u>SAFME</u>	Contact Person: <u>SAFME</u>	Contact Person: <u>SAFME</u>	Contact Person: <u>SAFME</u>	Contact Person: <u>SAFME</u>	Contact Person: <u>SAFME</u>	Contact Person: <u>SAFME</u>	Contact Person: <u>SAFME</u>	Contact Person: <u>SAFME</u>
E-Mail Address: <u>Brian.Grobman@lanigan.com</u>	E-Mail Address: <u>SAFME</u>	E-Mail Address: <u>SAFME</u>	E-Mail Address: <u>SAFME</u>	E-Mail Address: <u>SAFME</u>	E-Mail Address: <u>SAFME</u>	E-Mail Address: <u>SAFME</u>	E-Mail Address: <u>SAFME</u>	E-Mail Address: <u>SAFME</u>	E-Mail Address: <u>SAFME</u>	E-Mail Address: <u>SAFME</u>	E-Mail Address: <u>SAFME</u>
Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.											
Samples Collected/Authorized By (Signature): <u>[Signature]</u> Name (printed): <u>Elizabeth Peade Adkins</u>											
Matrix Codes S - soil Other - specify (oil, etc.) WW - wastewater DW - groundwater DW - drinking water Air-A - ambient air Air-SV - soil vapor											
Choose Analyses Needed from the Menu Above and Enter Below											
Sample Identification	Date/Time Sampled	Sample Matrix									
MW16-032817	3/28/17 0920	GW									
MW16-032817-MSMSD	3/28/17 0930	GW									
MW07-032817	3/28/17 1445	GW									
MW05-032817	3/28/17 1420	GW									
AP01-032817	3/28/17	GW									
TP01-032817	3/28/17 1515	Tripe Blank									
Container Description(s) 10 10 10 10 10 2											
Temperature on Receipt <u>3.2°C</u>											



Technical Report

prepared for:

Langan Engineering & Environmental Services (NYC)

21 Penn Plaza, 360 West 31st Street

New York NY, 10001

Attention: Brian Gochenaur

Report Date: 04/06/2017

Client Project ID: 170264501

York Project (SDG) No.: 17C1105

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

120 RESEARCH DRIVE
www.YORKLAB.com

STRATFORD, CT 06615
(203) 325-1371



132-02 89th AVENUE
FAX (203) 357-0166

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 04/06/2017
Client Project ID: 170264501
York Project (SDG) No.: 17C1105

Langan Engineering & Environmental Services (NYC)
21 Penn Plaza, 360 West 31st Street
New York NY, 10001
Attention: Brian Gochenaur

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 March 29, 2017 and listed below. The project was identified as your project: **170264501**.

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>
17C1105-01	MW12_032917	Water	03/29/2017	03/29/2017
17C1105-02	MW13_032917	Water	03/29/2017	03/29/2017
17C1105-03	MW14_032917	Water	03/29/2017	03/29/2017
17C1105-04	MW15_032917	Water	03/29/2017	03/29/2017
17C1105-05	TB01_032917	Water	03/29/2017	03/29/2017
17C1105-06	FB01_032917	Water	03/29/2017	03/29/2017

General Notes for York Project (SDG) No.: 17C1105

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.
9. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 04/06/2017





Sample Information

Client Sample ID: MW12_032917

York Sample ID: 17C1105-01

York Project (SDG) No.

17C1105

Client Project ID

170264501

Matrix

Water

Collection Date/Time

March 29, 2017 8:15 am

Date Received

03/29/2017

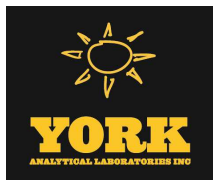
Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
78-93-3	2-Butanone	51		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
591-78-6	2-Hexanone	0.79		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS



Sample Information

Client Sample ID: MW12_032917

York Sample ID: 17C1105-01

York Project (SDG) No.
17C1105

Client Project ID
170264501

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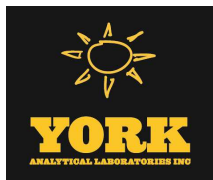
Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
67-64-1	Acetone	1800		ug/L	50	100	50	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 14:47	SS
107-02-8	Acrolein	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
71-43-2	Benzene	0.95		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-15-0	Carbon disulfide	0.27	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
156-59-2	cis-1,2-Dichloroethylene	1.6		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS



Sample Information

Client Sample ID: MW12_032917

York Sample ID: 17C1105-01

York Project (SDG) No.

17C1105

Client Project ID

170264501

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03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 10:33	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 10:33	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-65-0	tert-Butyl alcohol (TBA)	3.3		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
127-18-4	Tetrachloroethylene	5.0	SCAL- E	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
108-88-3	Toluene	0.61		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
79-01-6	Trichloroethylene	2.6		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
75-01-4	Vinyl Chloride	1.4		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/05/2017 18:56	04/06/2017 10:33	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	107 %	69-130								



Sample Information

Client Sample ID: MW12_032917

York Sample ID: 17C1105-01

York Project (SDG) No.
17C1105

Client Project ID
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March 29, 2017 8:15 am

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Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
2037-26-5	Surrogate: Toluene-d8	97.4 %			81-117						
460-00-4	Surrogate: p-Bromofluorobenzene	116 %			79-122						

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	3900		ug/L	500	500	50	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:24	RQB
74-84-0	* Ethane	ND		ug/L	500	500	50	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:24	RQB
74-85-1	* Ethylene (Ethene)	ND		ug/L	500	500	50	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:24	RQB

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	39.7		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	04/03/2017 10:04	04/03/2017 14:51	KV

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.468		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/31/2017 09:46	03/31/2017 15:29	KV

Chloride

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	Chloride	830		mg/L	1.38	10.0	20	EPA 300.0 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	04/01/2017 00:10	04/01/2017 00:10	DM1

Nitrite as N

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.00400	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	03/30/2017 23:09	03/30/2017 23:09	DM1

Sulfate as SO4

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: MW12_032917

York Sample ID: 17C1105-01

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Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	8.93		mg/L	0.0860	1.00	1	EPA 300.0	03/30/2017 23:09	03/30/2017 23:09	DM1
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Alkalinity, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Alkalinity, total	680		mg/L	2.00	2.00	1	SM 2320B	04/04/2017 09:52	04/04/2017 16:26	PAM
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Salinity

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Salinity	ND		parts/thous and		0.100	1	SM 2520B	04/04/2017 15:11	04/04/2017 16:19	PAM
Certifications:											

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	127		mg/L	10.0	10.0	10	SM 5310C	04/04/2017 11:51	04/04/2017 16:48	AD
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Sample Information

Client Sample ID: MW13_032917

York Sample ID: 17C1105-02

York Project (SDG) No.

Client Project ID

Matrix

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Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 10:59	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 10:59	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 10:59	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 10:59	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											



Sample Information

Client Sample ID: MW13_032917

York Sample ID: 17C1105-02

York Project (SDG) No.

Client Project ID

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17C1105

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Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
78-93-3	2-Butanone	45		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
591-78-6	2-Hexanone	0.99		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
67-64-1	Acetone	210		ug/L	10	20	10	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 15:13	SS
107-02-8	Acrolein	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS



Sample Information

Client Sample ID: MW13_032917

York Sample ID: 17C1105-02

York Project (SDG) No.
17C1105

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 29, 2017 7:45 am

Date Received
03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
156-59-2	cis-1,2-Dichloroethylene	16		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS



Sample Information

Client Sample ID: MW13_032917

York Sample ID: 17C1105-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1105

170264501

Water

March 29, 2017 7:45 am

03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 10:59	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 10:59	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
127-18-4	Tetrachloroethylene	3.8	SCAL- E	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
156-60-5	trans-1,2-Dichloroethylene	0.62		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
79-01-6	Trichloroethylene	2.8		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
75-01-4	Vinyl Chloride	15		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/05/2017 18:56	04/06/2017 10:59	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	100 %	69-130								
2037-26-5	Surrogate: Toluene-d8	102 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	112 %	79-122								

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: MW13_032917

York Sample ID: 17C1105-02

York Project (SDG) No.
17C1105

Client Project ID
170264501

Matrix
Water

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March 29, 2017 7:45 am

Date Received
03/29/2017

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	3700		ug/L	500	500	50	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:27	RQB
74-84-0	* Ethane	ND		ug/L	500	500	50	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:27	RQB
74-85-1	* Ethylene (Ethene)	ND		ug/L	500	500	50	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:27	RQB

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	23.3		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	04/03/2017 10:04	04/03/2017 14:56	KV

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.143		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/31/2017 09:46	03/31/2017 15:34	KV

Chloride

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	Chloride	894		mg/L	1.38	10.0	20	EPA 300.0 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	04/01/2017 01:13	04/01/2017 01:13	DM1

Nitrite as N

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.00400	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	03/30/2017 23:30	03/30/2017 23:30	DM1

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	ND		mg/L	1.72	20.0	20	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	04/01/2017 01:13	04/01/2017 01:13	DM1



Sample Information

Client Sample ID: MW13_032917

York Sample ID: 17C1105-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1105

170264501

Water

March 29, 2017 7:45 am

03/29/2017

Alkalinity, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Alkalinity, total	685		mg/L	2.00	2.00	1	SM 2320B	04/04/2017 09:52	04/04/2017 16:26	PAM
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Salinity

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Salinity	ND		parts/thous and		0.100	1	SM 2520B	04/04/2017 15:11	04/04/2017 16:19	PAM
Certifications:											

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	90.7		mg/L	10.0	10.0	10	SM 5310C	04/04/2017 11:51	04/04/2017 16:48	AD
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Sample Information

Client Sample ID: MW14_032917

York Sample ID: 17C1105-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1105

170264501

Water

March 29, 2017 7:00 am

03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:24	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:24	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:24	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:24	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:24	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:24	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:24	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											



Sample Information

Client Sample ID: MW14_032917

York Sample ID: 17C1105-03

York Project (SDG) No.
17C1105

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 29, 2017 7:00 am

Date Received
03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
107-02-8	Acrolein	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS



Sample Information

Client Sample ID: MW14_032917

York Sample ID: 17C1105-03

York Project (SDG) No.

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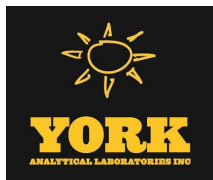
Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
156-59-2	cis-1,2-Dichloroethylene	30		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	0.58		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 11:24	SS



Sample Information

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Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 11:24	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
127-18-4	Tetrachloroethylene	19	SCAL-E	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
156-60-5	trans-1,2-Dichloroethylene	0.21	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
79-01-6	Trichloroethylene	6.4		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/05/2017 18:56	04/06/2017 11:24	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	105 %	69-130								
2037-26-5	Surrogate: Toluene-d8	104 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	112 %	79-122								

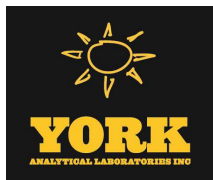
Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:31	RQB
74-84-0	* Ethane	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:31	RQB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:31	RQB



Sample Information

Client Sample ID: MW14_032917

York Sample ID: 17C1105-03

York Project (SDG) No.
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Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	2.57		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	04/03/2017 10:04	04/03/2017 15:01	KV

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.0780		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/31/2017 09:46	03/31/2017 15:40	KV

Chloride

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	Chloride	248		mg/L	0.0690	0.500	1	EPA 300.0 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/30/2017 23:51	03/30/2017 23:51	DM1

Nitrite as N

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.00400	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	03/30/2017 23:51	03/30/2017 23:51	DM1

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	485		mg/L	0.0860	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/30/2017 23:51	03/30/2017 23:51	DM1

Alkalinity, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Alkalinity, total	365		mg/L	2.00	2.00	1	SM 2520B Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	04/04/2017 09:52	04/04/2017 16:26	PAM

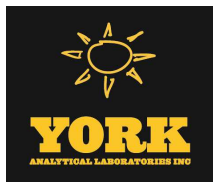
Salinity

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Salinity	ND		parts/thous and		0.100	1	SM 2520B Certifications:	04/04/2017 15:11	04/04/2017 16:19	PAM



Sample Information

Client Sample ID: MW14_032917

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Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	4.13		mg/L	1.00	1.00	1	SM 5310C	04/04/2017 11:51	04/04/2017 16:48	AD
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Sample Information

Client Sample ID: MW15_032917

York Sample ID: 17C1105-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1105

170264501

Water

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Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	2.0	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: NELAC-NY10854,NJDEP											
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: NELAC-NY10854,NJDEP											
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: NELAC-NY10854,NJDEP											
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/05/2017 18:56	04/06/2017 11:49	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											



Sample Information

Client Sample ID: MW15_032917

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Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications:	04/05/2017 18:56 NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
67-64-1	Acetone	1.2	J	ug/L	1.0	2.0	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
107-02-8	Acrolein	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	04/05/2017 18:56 CTDOH,NELAC-NY10854,NJDEP	04/06/2017 11:49	SS



Sample Information

Client Sample ID: MW15_032917

York Sample ID: 17C1105-04

York Project (SDG) No.
17C1105

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 29, 2017 8:30 am

Date Received
03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 11:49	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 11:49	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
127-18-4	Tetrachloroethylene	21	SCAL-E	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS



Sample Information

Client Sample ID: MW15_032917

York Sample ID: 17C1105-04

York Project (SDG) No.

17C1105

Client Project ID

170264501

Matrix

Water

Collection Date/Time

March 29, 2017 8:30 am

Date Received

03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
79-01-6	Trichloroethylene	0.32	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/05/2017 18:56	04/06/2017 11:49	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	110 %	69-130								
2037-26-5	Surrogate: Toluene-d8	96.6 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	105 %	79-122								

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:33	RQB
74-84-0	* Ethane	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:33	RQB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:33	RQB

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	2.94		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	04/03/2017 10:04	04/03/2017 15:06	KV

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.0986		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/31/2017 09:46	03/31/2017 15:45	KV



Sample Information

Client Sample ID: MW15_032917

York Sample ID: 17C1105-04

York Project (SDG) No.
17C1105

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 29, 2017 8:30 am

Date Received
03/29/2017

Chloride

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	Chloride	43.3		mg/L	0.0690	0.500	1	EPA 300.0	03/31/2017 00:12	03/31/2017 00:12	DM1
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											

Nitrite as N

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.00400	0.0500	1	EPA 300.0	03/31/2017 00:12	03/31/2017 00:12	DM1
Certifications: NELAC-NY10854,CTDOH,PADEP											

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	132		mg/L	0.0860	1.00	1	EPA 300.0	03/31/2017 00:12	03/31/2017 00:12	DM1
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Alkalinity, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Alkalinity, total	124		mg/L	2.00	2.00	1	SM 2320B	04/04/2017 09:52	04/04/2017 16:26	PAM
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Salinity

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Salinity	ND		parts/thous and		0.100	1	SM 2520B	04/04/2017 15:11	04/04/2017 16:19	PAM
Certifications:											

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	4.12		mg/L	1.00	1.00	1	SM 5310C	04/04/2017 11:51	04/04/2017 16:48	AD
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											



Sample Information

Client Sample ID: TB01_032917

York Sample ID: 17C1105-05

York Project (SDG) No.
17C1105

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 29, 2017 9:00 am

Date Received
03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS



Sample Information

Client Sample ID: TB01_032917

York Sample ID: 17C1105-05

York Project (SDG) No.
17C1105

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 29, 2017 9:00 am

Date Received
03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
107-02-8	Acrolein	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS



Sample Information

Client Sample ID: TB01_032917

York Sample ID: 17C1105-05

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1105

170264501

Water

March 29, 2017 9:00 am

03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-09-2	Methylene chloride	2.0	J	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 12:15	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 12:15	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/05/2017 18:56	04/06/2017 12:15	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	102 %	69-130								
2037-26-5	Surrogate: Toluene-d8	97.7 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	121 %	79-122								



Sample Information

Client Sample ID: TB01_032917

York Sample ID: 17C1105-05

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
17C1105	170264501	Water	March 29, 2017 9:00 am	03/29/2017

Sample Information

Client Sample ID: FB01_032917

York Sample ID: 17C1105-06

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
17C1105	170264501	Water	March 29, 2017 9:00 am	03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS



Sample Information

Client Sample ID: FB01_032917

York Sample ID: 17C1105-06

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1105

170264501

Water

March 29, 2017 9:00 am

03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
123-91-1	1,4-Dioxane	ND		ug/L	40	40	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
67-64-1	Acetone	3.8		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
107-02-8	Acrolein	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
107-13-1	Acrylonitrile	ND		ug/L	0.20	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
67-66-3	Chloroform	0.26	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
110-82-7	Cyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS



Sample Information

Client Sample ID: FB01_032917

York Sample ID: 17C1105-06

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1105

170264501

Water

March 29, 2017 9:00 am

03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
79-20-9	Methyl acetate	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
108-87-2	Methylcyclohexane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
75-09-2	Methylene chloride	1.5	J	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 12:40	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	04/05/2017 18:56	04/06/2017 12:40	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/L	0.50	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS



Sample Information

Client Sample ID: FB01_032917

York Sample ID: 17C1105-06

York Project (SDG) No.
17C1105

Client Project ID
170264501

Matrix
Water

Collection Date/Time
March 29, 2017 9:00 am

Date Received
03/29/2017

Volatile Organics, 8260 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	04/05/2017 18:56	04/06/2017 12:40	SS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	116 %			69-130						
2037-26-5	Surrogate: Toluene-d8	94.7 %			81-117						
460-00-4	Surrogate: p-Bromofluorobenzene	108 %			79-122						

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-82-8	* Methane	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:36	RQB
74-84-0	* Ethane	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:36	RQB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	10	1	GC/Headspace Certifications:	04/04/2017 09:09	04/04/2017 14:36	RQB

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.866		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	04/03/2017 10:04	04/03/2017 15:24	KV

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.107		mg/L	0.0222	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/31/2017 09:46	03/31/2017 15:50	KV

Chloride

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16887-00-6	Chloride	ND		mg/L	0.0690	0.500	1	EPA 300.0 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/31/2017 00:33	03/31/2017 00:33	DM1

Nitrite as N

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: FB01_032917

York Sample ID: 17C1105-06

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17C1105

170264501

Water

March 29, 2017 9:00 am

03/29/2017

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.00400	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	03/31/2017 00:33	03/31/2017 00:33	DM1

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	ND		mg/L	0.0860	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/31/2017 00:33	03/31/2017 00:33	DM1

Alkalinity, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Alkalinity, total	2.00		mg/L	2.00	2.00	1	SM 2320B Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	04/04/2017 09:52	04/04/2017 16:26	PAM

Salinity

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Salinity	ND		parts/thous and		0.100	1	SM 2520B Certifications:	04/04/2017 15:11	04/04/2017 16:19	PAM

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	1.82		mg/L	1.00	1.00	1	SM 5310C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	04/04/2017 11:51	04/04/2017 16:48	AD



Analytical Batch Summary

Batch ID: BC71454 **Preparation Method:** EPA 3015A **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
17C1105-01	MW12_032917	03/31/17
17C1105-02	MW13_032917	03/31/17
17C1105-03	MW14_032917	03/31/17
17C1105-04	MW15_032917	03/31/17
17C1105-06	FB01_032917	03/31/17
BC71454-BLK1	Blank	03/31/17
BC71454-SRM1	Reference	03/31/17

Batch ID: BC71484 **Preparation Method:** EPA 300 **Prepared By:** DM1

YORK Sample ID	Client Sample ID	Preparation Date
17C1105-01	MW12_032917	03/30/17
17C1105-02	MW13_032917	03/30/17
17C1105-03	MW14_032917	03/30/17
17C1105-04	MW15_032917	03/31/17
17C1105-06	FB01_032917	03/31/17
BC71484-BLK1	Blank	03/30/17
BC71484-BS1	LCS	03/30/17
BC71484-SRM1	Reference	03/30/17

Batch ID: BC71487 **Preparation Method:** EPA 300 **Prepared By:** DM1

YORK Sample ID	Client Sample ID	Preparation Date
17C1105-03	MW14_032917	03/30/17
17C1105-04	MW15_032917	03/31/17
BC71487-BLK1	Blank	03/31/17
BC71487-BS1	LCS	03/31/17
BC71487-SRM1	Reference	03/31/17

Batch ID: BD70031 **Preparation Method:** EPA 300 **Prepared By:** DM1

YORK Sample ID	Client Sample ID	Preparation Date
17C1105-01	MW12_032917	04/01/17
17C1105-02	MW13_032917	04/01/17
BD70031-BLK1	Blank	03/31/17
BD70031-BS1	LCS	03/31/17
BD70031-SRM1	Reference	03/31/17

Batch ID: BD70036 **Preparation Method:** EPA 3015A **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
17C1105-01	MW12_032917	04/03/17
17C1105-02	MW13_032917	04/03/17



17C1105-03	MW14_032917	04/03/17
17C1105-04	MW15_032917	04/03/17
17C1105-06	FB01_032917	04/03/17
BD70036-BLK1	Blank	04/03/17
BD70036-SRM1	Reference	04/03/17

Batch ID: BD70089 **Preparation Method:** Preparation for GC Analysis **Prepared By:** RQB

YORK Sample ID	Client Sample ID	Preparation Date
17C1105-01	MW12_032917	04/04/17
17C1105-02	MW13_032917	04/04/17
17C1105-03	MW14_032917	04/04/17
17C1105-04	MW15_032917	04/04/17
17C1105-06	FB01_032917	04/04/17
BD70089-BLK1	Blank	04/04/17

Batch ID: BD70091 **Preparation Method:** Analysis Preparation **Prepared By:** PAM

YORK Sample ID	Client Sample ID	Preparation Date
17C1105-01	MW12_032917	04/04/17
17C1105-02	MW13_032917	04/04/17
17C1105-03	MW14_032917	04/04/17
17C1105-04	MW15_032917	04/04/17
17C1105-06	FB01_032917	04/04/17
BD70091-SRM1	Reference	04/04/17

Batch ID: BD70105 **Preparation Method:** Analysis Preparation **Prepared By:** TJM

YORK Sample ID	Client Sample ID	Preparation Date
17C1105-01	MW12_032917	04/04/17
17C1105-02	MW13_032917	04/04/17
17C1105-03	MW14_032917	04/04/17
17C1105-04	MW15_032917	04/04/17
17C1105-06	FB01_032917	04/04/17
BD70105-BLK1	Blank	04/04/17
BD70105-BS1	LCS	04/04/17

Batch ID: BD70120 **Preparation Method:** Analysis Preparation **Prepared By:** AD

YORK Sample ID	Client Sample ID	Preparation Date
17C1105-01	MW12_032917	04/04/17
17C1105-02	MW13_032917	04/04/17
17C1105-03	MW14_032917	04/04/17
17C1105-04	MW15_032917	04/04/17
17C1105-06	FB01_032917	04/04/17

Batch ID: BD70186 **Preparation Method:** EPA 5030B **Prepared By:** RDS



YORK Sample ID	Client Sample ID	Preparation Date
17C1105-01	MW12_032917	04/05/17
17C1105-01RE1	MW12_032917	04/05/17
17C1105-02	MW13_032917	04/05/17
17C1105-02RE1	MW13_032917	04/05/17
17C1105-03	MW14_032917	04/05/17
17C1105-04	MW15_032917	04/05/17
17C1105-05	TB01_032917	04/05/17
17C1105-06	FB01_032917	04/05/17
BD70186-BLK1	Blank	04/05/17
BD70186-BS1	LCS	04/05/17
BD70186-BSD1	LCS Dup	04/05/17



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD70186 - EPA 5030B											
Blank (BD70186-BLK1)											
Prepared: 04/05/2017 Analyzed: 04/06/2017											
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L								
1,1,1-Trichloroethane	ND	0.50	"								
1,1,2,2-Tetrachloroethane	ND	0.50	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"								
1,1,2-Trichloroethane	ND	0.50	"								
1,1-Dichloroethane	ND	0.50	"								
1,1-Dichloroethylene	ND	0.50	"								
1,2,3-Trichlorobenzene	0.37	0.50	"								
1,2,3-Trichloropropane	ND	0.50	"								
1,2,4-Trichlorobenzene	ND	0.50	"								
1,2,4-Trimethylbenzene	ND	0.50	"								
1,2-Dibromo-3-chloropropane	ND	0.50	"								
1,2-Dibromoethane	ND	0.50	"								
1,2-Dichlorobenzene	ND	0.50	"								
1,2-Dichloroethane	ND	0.50	"								
1,2-Dichloropropane	ND	0.50	"								
1,3,5-Trimethylbenzene	ND	0.50	"								
1,3-Dichlorobenzene	ND	0.50	"								
1,4-Dichlorobenzene	ND	0.50	"								
1,4-Dioxane	ND	40	"								
2-Butanone	ND	0.50	"								
2-Hexanone	ND	0.50	"								
4-Methyl-2-pentanone	ND	0.50	"								
Acetone	ND	2.0	"								
Acrolein	ND	0.50	"								
Acrylonitrile	ND	0.50	"								
Benzene	ND	0.50	"								
Bromochloromethane	ND	0.50	"								
Bromodichloromethane	ND	0.50	"								
Bromoform	ND	0.50	"								
Bromomethane	ND	0.50	"								
Carbon disulfide	ND	0.50	"								
Carbon tetrachloride	ND	0.50	"								
Chlorobenzene	ND	0.50	"								
Chloroethane	ND	0.50	"								
Chloroform	ND	0.50	"								
Chloromethane	ND	0.50	"								
cis-1,2-Dichloroethylene	ND	0.50	"								
cis-1,3-Dichloropropylene	ND	0.50	"								
Cyclohexane	ND	0.50	"								
Dibromochloromethane	ND	0.50	"								
Dibromomethane	ND	0.50	"								
Dichlorodifluoromethane	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Hexachlorobutadiene	ND	0.50	"								
Isopropylbenzene	ND	0.50	"								
Methyl acetate	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Methylcyclohexane	ND	0.50	"								
Methylene chloride	ND	2.0	"								



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BD70186 - EPA 5030B

Blank (BD70186-BLK1)

Prepared: 04/05/2017 Analyzed: 04/06/2017

n-Butylbenzene	ND	0.50	ug/L
n-Propylbenzene	ND	0.50	"
o-Xylene	ND	0.50	"
p- & m- Xylenes	ND	1.0	"
p-Isopropyltoluene	ND	0.50	"
sec-Butylbenzene	ND	0.50	"
Styrene	ND	0.50	"
tert-Butyl alcohol (TBA)	ND	1.0	"
tert-Butylbenzene	ND	0.50	"
Tetrachloroethylene	ND	0.50	"
Toluene	ND	0.50	"
trans-1,2-Dichloroethylene	ND	0.50	"
trans-1,3-Dichloropropylene	ND	0.50	"
Trichloroethylene	ND	0.50	"
Trichlorofluoromethane	ND	0.50	"
Vinyl Chloride	ND	0.50	"
Xylenes, Total	ND	1.5	"

Surrogate: 1,2-Dichloroethane-d4	10.3	"	10.0	103	69-130
Surrogate: Toluene-d8	10.4	"	10.0	104	81-117
Surrogate: p-Bromofluorobenzene	10.9	"	10.0	109	79-122

LCS (BD70186-BS1)

Prepared: 04/05/2017 Analyzed: 04/06/2017

1,1,1,2-Tetrachloroethane	10	ug/L	10.0	101	82-126
1,1,1-Trichloroethane	11	"	10.0	106	78-136
1,1,2,2-Tetrachloroethane	11	"	10.0	111	76-129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11	"	10.0	111	54-165
1,1,2-Trichloroethane	11	"	10.0	106	82-123
1,1-Dichloroethane	10	"	10.0	104	82-129
1,1-Dichloroethylene	10	"	10.0	104	68-138
1,2,3-Trichlorobenzene	10	"	10.0	100	76-136
1,2,3-Trichloropropane	11	"	10.0	113	77-128
1,2,4-Trichlorobenzene	11	"	10.0	108	76-137
1,2,4-Trimethylbenzene	11	"	10.0	114	82-132
1,2-Dibromo-3-chloropropane	11	"	10.0	106	45-147
1,2-Dibromoethane	10	"	10.0	104	83-124
1,2-Dichlorobenzene	11	"	10.0	108	79-123
1,2-Dichloroethane	10	"	10.0	105	73-132
1,2-Dichloropropane	11	"	10.0	106	78-126
1,3,5-Trimethylbenzene	12	"	10.0	115	80-131
1,3-Dichlorobenzene	11	"	10.0	109	86-122
1,4-Dichlorobenzene	11	"	10.0	108	85-124
1,4-Dioxane	370	"	200	186	10-349
2-Butanone	9.7	"	10.0	97.3	49-152
2-Hexanone	11	"	10.0	107	51-146
4-Methyl-2-pentanone	11	"	10.0	111	57-145
Acetone	8.5	"	10.0	84.8	14-150
Acrolein	10	"	10.0	101	10-153
Acrylonitrile	10	"	10.0	104	51-150
Benzene	10	"	10.0	104	85-126
Bromochloromethane	11	"	10.0	109	77-128
Bromodichloromethane	11	"	10.0	107	79-128



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

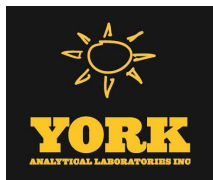
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BD70186 - EPA 5030B

LCS (BD70186-BS1)

Prepared: 04/05/2017 Analyzed: 04/06/2017

Bromoform	9.3		ug/L	10.0		92.9	78-133				
Bromomethane	8.0		"	10.0		80.1	43-168				
Carbon disulfide	9.5		"	10.0		95.4	68-146				
Carbon tetrachloride	11		"	10.0		106	77-141				
Chlorobenzene	10		"	10.0		101	88-120				
Chloroethane	10		"	10.0		104	65-136				
Chloroform	10		"	10.0		102	82-128				
Chloromethane	13		"	10.0		133	43-155				
cis-1,2-Dichloroethylene	10		"	10.0		101	83-129				
cis-1,3-Dichloropropylene	10		"	10.0		103	80-131				
Cyclohexane	11		"	10.0		108	63-149				
Dibromochloromethane	10		"	10.0		102	80-130				
Dibromomethane	10		"	10.0		103	72-134				
Dichlorodifluoromethane	9.5		"	10.0		95.2	44-144				
Ethyl Benzene	11		"	10.0		107	80-131				
Hexachlorobutadiene	12		"	10.0		117	67-146				
Isopropylbenzene	12		"	10.0		118	76-140				
Methyl acetate	9.8		"	10.0		98.0	51-139				
Methyl tert-butyl ether (MTBE)	9.7		"	10.0		97.3	76-135				
Methylcyclohexane	11		"	10.0		111	72-143				
Methylene chloride	8.8		"	10.0		88.1	55-137				
n-Butylbenzene	12		"	10.0		117	79-132				
n-Propylbenzene	12		"	10.0		117	78-133				
o-Xylene	11		"	10.0		107	78-130				
p- & m- Xylenes	22		"	20.0		110	77-133				
p-Isopropyltoluene	11		"	10.0		112	81-136				
sec-Butylbenzene	12		"	10.0		115	79-137				
Styrene	10		"	10.0		104	67-132				
tert-Butyl alcohol (TBA)	11		"	10.0		106	25-162				
tert-Butylbenzene	12		"	10.0		115	77-138				
Tetrachloroethylene	9.4		"	10.0		93.5	82-131				
Toluene	11		"	10.0		108	80-127				
trans-1,2-Dichloroethylene	10		"	10.0		100	80-132				
trans-1,3-Dichloropropylene	10		"	10.0		105	78-131				
Trichloroethylene	10		"	10.0		105	82-128				
Trichlorofluoromethane	11		"	10.0		110	67-139				
Vinyl Chloride	12		"	10.0		123	58-145				
Surrogate: 1,2-Dichloroethane-d4	10.3		"	10.0		103	69-130				
Surrogate: Toluene-d8	9.98		"	10.0		99.8	81-117				
Surrogate: p-Bromofluorobenzene	10.7		"	10.0		107	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD70186 - EPA 5030B											
LCS Dup (BD70186-BSD1)						Prepared: 04/05/2017 Analyzed: 04/06/2017					
1,1,1,2-Tetrachloroethane	10		ug/L	10.0		102	82-126		1.08	30	
1,1,1-Trichloroethane	10		"	10.0		105	78-136		1.70	30	
1,1,2,2-Tetrachloroethane	11		"	10.0		109	76-129		1.73	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	12		"	10.0		118	54-165		6.02	30	
1,1,2-Trichloroethane	10		"	10.0		102	82-123		4.43	30	
1,1-Dichloroethane	10		"	10.0		104	82-129		0.193	30	
1,1-Dichloroethylene	12		"	10.0		117	68-138		12.0	30	
1,2,3-Trichlorobenzene	11		"	10.0		114	76-136		13.0	30	
1,2,3-Trichloropropane	11		"	10.0		109	77-128		3.61	30	
1,2,4-Trichlorobenzene	11		"	10.0		110	76-137		1.19	30	
1,2,4-Trimethylbenzene	12		"	10.0		120	82-132		4.94	30	
1,2-Dibromo-3-chloropropane	9.6		"	10.0		95.5	45-147		10.0	30	
1,2-Dibromoethane	10		"	10.0		103	83-124		1.45	30	
1,2-Dichlorobenzene	11		"	10.0		108	79-123		0.0929	30	
1,2-Dichloroethane	10		"	10.0		104	73-132		0.574	30	
1,2-Dichloropropane	10		"	10.0		101	78-126		4.25	30	
1,3,5-Trimethylbenzene	11		"	10.0		114	80-131		1.57	30	
1,3-Dichlorobenzene	11		"	10.0		107	86-122		1.76	30	
1,4-Dichlorobenzene	11		"	10.0		107	85-124		0.651	30	
1,4-Dioxane	340		"	200		171	10-349		8.33	30	
2-Butanone	8.3		"	10.0		83.3	49-152		15.5	30	
2-Hexanone	11		"	10.0		105	51-146		1.42	30	
4-Methyl-2-pentanone	11		"	10.0		107	57-145		4.31	30	
Acetone	11		"	10.0		108	14-150		24.1	30	
Acrolein	11		"	10.0		110	10-153		8.88	30	
Acrylonitrile	10		"	10.0		102	51-150		1.45	30	
Benzene	10		"	10.0		101	85-126		2.83	30	
Bromochloromethane	11		"	10.0		110	77-128		0.549	30	
Bromodichloromethane	11		"	10.0		105	79-128		1.79	30	
Bromoform	9.5		"	10.0		94.8	78-133		2.02	30	
Bromomethane	8.0		"	10.0		79.8	43-168		0.375	30	
Carbon disulfide	9.9		"	10.0		99.3	68-146		4.01	30	
Carbon tetrachloride	11		"	10.0		105	77-141		0.474	30	
Chlorobenzene	10		"	10.0		101	88-120		0.595	30	
Chloroethane	11		"	10.0		111	65-136		7.17	30	
Chloroform	10		"	10.0		103	82-128		1.18	30	
Chloromethane	13		"	10.0		133	43-155		0.225	30	
cis-1,2-Dichloroethylene	10		"	10.0		100	83-129		1.29	30	
cis-1,3-Dichloropropylene	10		"	10.0		100	80-131		2.96	30	
Cyclohexane	11		"	10.0		106	63-149		1.31	30	
Dibromochloromethane	10		"	10.0		104	80-130		1.46	30	
Dibromomethane	10		"	10.0		105	72-134		1.63	30	
Dichlorodifluoromethane	9.6		"	10.0		95.6	44-144		0.419	30	
Ethyl Benzene	11		"	10.0		107	80-131		0.0935	30	
Hexachlorobutadiene	13		"	10.0		130	67-146		10.7	30	
Isopropylbenzene	12		"	10.0		116	76-140		1.28	30	
Methyl acetate	10		"	10.0		102	51-139		4.10	30	
Methyl tert-butyl ether (MTBE)	10		"	10.0		101	76-135		3.43	30	
Methylcyclohexane	10		"	10.0		104	72-143		6.43	30	
Methylene chloride	9.5		"	10.0		94.8	55-137		7.33	30	
n-Butylbenzene	12		"	10.0		117	79-132		0.0854	30	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BD70186 - EPA 5030B

LCS Dup (BD70186-BSD1)

Prepared: 04/05/2017 Analyzed: 04/06/2017

n-Propylbenzene	12		ug/L	10.0		115	78-133		1.29	30	
o-Xylene	11		"	10.0		108	78-130		0.279	30	
p- & m- Xylenes	22		"	20.0		110	77-133		0.137	30	
p-Isopropyltoluene	11		"	10.0		113	81-136		0.797	30	
sec-Butylbenzene	12		"	10.0		116	79-137		0.952	30	
Styrene	11		"	10.0		106	67-132		1.71	30	
tert-Butyl alcohol (TBA)	12		"	10.0		124	25-162		15.9	30	
tert-Butylbenzene	11		"	10.0		113	77-138		1.93	30	
Tetrachloroethylene	10		"	10.0		101	82-131		7.71	30	
Toluene	10		"	10.0		105	80-127		3.29	30	
trans-1,2-Dichloroethylene	10		"	10.0		101	80-132		0.398	30	
trans-1,3-Dichloropropylene	9.9		"	10.0		98.6	78-131		6.00	30	
Trichloroethylene	10		"	10.0		101	82-128		4.28	30	
Trichlorofluoromethane	11		"	10.0		112	67-139		1.71	30	
Vinyl Chloride	12		"	10.0		125	58-145		1.45	30	
Surrogate: 1,2-Dichloroethane-d4	10.3		"	10.0		103	69-130				
Surrogate: Toluene-d8	9.85		"	10.0		98.5	81-117				
Surrogate: p-Bromofluorobenzene	10.6		"	10.0		106	79-122				



Gas Chromatography/Flame Ionization Detector - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD Limit	Flag
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Batch BD70089 - Preparation for GC Analysis

Blank (BD70089-BLK1)

Prepared & Analyzed: 04/04/2017

Methane	ND	10	ug/L
Ethane	ND	10	"
Ethylene (Ethene)	ND	10	"



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BC71454 - EPA 3015A

Blank (BC71454-BLK1)

Prepared & Analyzed: 03/31/2017

Iron - Dissolved ND 0.0200 mg/L

Reference (BC71454-SRM1)

Prepared & Analyzed: 03/31/2017

Iron - Dissolved 0.735 ug/mL 0.759 96.9 84.9-115

Batch BD70036 - EPA 3015A

Blank (BD70036-BLK1)

Prepared & Analyzed: 04/03/2017

Iron ND 0.0200 mg/L

Reference (BD70036-SRM1)

Prepared & Analyzed: 04/03/2017

Iron 0.727 ug/mL 0.759 95.7 84.9-115



Anions by Ion Chromatography - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC71484 - EPA 300											
Blank (BC71484-BLK1)						Prepared & Analyzed: 03/30/2017					
Chloride	ND	0.500	mg/L								
Nitrite as N	ND	0.0500	"								
Sulfate	ND	1.00	"								
LCS (BC71484-BS1)						Prepared & Analyzed: 03/30/2017					
Chloride	10.6	0.500	mg/L	10.0		106	85-115				
Nitrite as N	10.6	0.0500	"	10.0		106	90-110				
Sulfate	10.3	1.00	"	10.0		103	85-115				
Reference (BC71484-SRM1)						Prepared & Analyzed: 03/30/2017					
Chloride	11.6		mg/L	11.3		102	90-110				
Nitrite as N	3.70		"	4.00		92.4	90-110				
Sulfate	7.31		"	6.95		105	90-110				
Batch BC71487 - EPA 300											
Blank (BC71487-BLK1)						Prepared & Analyzed: 03/31/2017					
Chloride	ND	0.500	mg/L								
Sulfate	ND	1.00	"								
LCS (BC71487-BS1)						Prepared & Analyzed: 03/31/2017					
Chloride	9.77	0.500	mg/L	10.0		97.7	85-115				
Sulfate	10.2	1.00	"	10.0		102	85-115				
Reference (BC71487-SRM1)						Prepared & Analyzed: 03/31/2017					
Chloride	11.1		mg/L	11.3		98.3	90-110				
Sulfate	7.14		"	6.95		103	90-110				



Anions by Ion Chromatography - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BD70031 - EPA 300

Blank (BD70031-BLK1)

Prepared & Analyzed: 03/31/2017

Chloride	ND	0.500	mg/L
Sulfate	ND	1.00	"

LCS (BD70031-BS1)

Prepared & Analyzed: 03/31/2017

Chloride	9.38	0.500	mg/L	10.0	93.8	85-115
Sulfate	9.51	1.00	"	10.0	95.1	85-115

Reference (BD70031-SRM1)

Prepared & Analyzed: 03/31/2017

Chloride	12.2	mg/L	11.3	108	90-110
Sulfate	7.55	"	6.95	109	90-110



Wet Chemistry Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BD70091 - Analysis Preparation

Reference (BD70091-SRM1)

Prepared & Analyzed: 04/04/2017

Alkalinity, total	160	2.00	mg/L	160		100	90.6-111				
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Batch BD70105 - Analysis Preparation

Blank (BD70105-BLK1)

Prepared & Analyzed: 04/04/2017

Total Organic Carbon (TOC)	ND	1.00	mg/L								
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LCS (BD70105-BS1)

Prepared & Analyzed: 04/04/2017

Total Organic Carbon (TOC)	77.5	1.00	mg/L	78.3		99.0	79.5-125.1				
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Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
17C1105-01	MW12_032917	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17C1105-02	MW13_032917	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17C1105-03	MW14_032917	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17C1105-04	MW15_032917	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17C1105-05	TB01_032917	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17C1105-06	FB01_032917	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Notes and Definitions

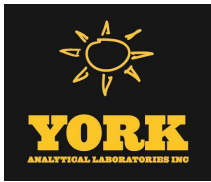
SCAL-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.
*	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.





YORK ANALYTICAL LABORATORIES
120 RESEARCH DR.
STRATFORD, CT 06615
(203) 325-1371
FAX (203) 357-0166

YORK
ANALYTICAL LABORATORIES INC.

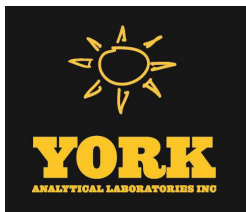
Field Chain-of-Custody Record

Page 1 of 1

York Project No. 17C1105

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions.

YOUR INFORMATION		Report To:		Invoice To:		YOUR PROJECT ID		Turn-Around Time		Report Type	
Company: <u>Langan</u>	Company: <u>SAME</u>	Company: <u>SAME</u>	Company: <u>SAME</u>	RUSH - Same Day ☐	RUSH - Next Day ☐	RUSH - Two Day ☐	RUSH - Three Day ☐	RUSH - Four Day ☐	Summary Report ☒	Summary w/ QA Summary ☐	CT RCP Package ☐
Address: <u>360 W. 31st Street</u>	Address: <u>SAME</u>	Address: <u>SAME</u>	Address: <u>SAME</u>	Purchase Order No. <u>170264501</u>		Purchase Order No. <u>170264501</u>		CT RCP DQA/DUE Pkg ☐		NY ASP A Package ☐	
Phone No. <u>212-479-5400</u>	Phone No. <u>SAME</u>	Phone No. <u>SAME</u>	Phone No. <u>SAME</u>	Samples from: CT ☒ NY ☒ NJ ☐		Samples from: CT ☒ NY ☒ NJ ☐		NY ASP B Package ☐		NUDEP Red. Deliv. ☐	
Contact Person: <u>Brian Grochenaur</u>	Attention: <u>SAME</u>	Attention: <u>SAME</u>	Attention: <u>SAME</u>	E-Mail Address: <u>BGROCHENAU@langan.com</u>		E-Mail Address: <u>BGROCHENAU@langan.com</u>		NUDEP Red. Deliv. ☐		Electronic Data Deliverables (EDD) ☒	
E-Mail Address: <u>BGROCHENAU@langan.com</u>	E-Mail Address: <u>BGROCHENAU@langan.com</u>		E-Mail Address: <u>BGROCHENAU@langan.com</u>		E-Mail Address: <u>BGROCHENAU@langan.com</u>		E-Mail Address: <u>BGROCHENAU@langan.com</u>		Simple Excel ☐		Simple Excel ☒
Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.											
Samples Collected/Authorized By (Signature) <u>[Signature]</u> Name (printed) <u>Elizabeth Reade Adkins</u>											
Matrix Codes S - soil ☐ Other - specify (oil, etc.) ☐ WW - wastewater ☐ GW - groundwater ☐ DW - drinking water ☐ Air-A - ambient air ☐ Air-SV - soil vapor ☐											
Sample Identification		Date/Time Sampled		Sample Matrix		Choose Analyses Needed from the Menu Above and Enter Below		Container Description(s)		Temperature on Receipt	
MW12 - 032917		3/29/17 08:15		GW		①		10		2.2 °C	
MW13 - 032917		3/29/17 07:45		GW		①		10			
MW14 - 032917		3/29/17 07:00		GW		①		10			
MW15 - 032917		3/29/17 08:30		GW		①		10			
TB01 - 032917		3/29/17 09:00		Top Blank		①		2			
FB01 - 032917		3/29/17 09:00		Field Blank		①		10			
Comments: <u>DOCS, total dissolved van (lab to filter), total organic carbon, sulfate, nitrate, chloride, dissolved gases, salinity, alkalinity</u>											
Preservation: ☒ Frozen ☐ MeOH ☐ HNO₃ ☐ H₂SO₄ ☐ NaOH ☐ Other ☐ Check those Applicable: ☐ ZnAc ☐ Ascorbic Acid ☐ 1400 Special Instructions: ☐ Field Filtered ☐ Lab to Filter ☒ Samples Relinquished By <u>Danella Dorman</u> Date/Time <u>3/29/17 14:00</u> Samples Relinquished By <u>[Signature]</u> Date/Time <u>3/29/17 18:26</u>											



Technical Report

prepared for:

Langan Engineering & Environmental Services (NYC)

21 Penn Plaza, 360 West 31st Street

New York NY, 10001

Attention: Brian Gochenaur

Report Date: 07/17/2017

Client Project ID: 170264501

York Project (SDG) No.: 17G0203

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

120 RESEARCH DRIVE
www.YORKLAB.com

STRATFORD, CT 06615
(203) 325-1371



132-02 89th AVENUE
FAX (203) 357-0166

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 07/17/2017
Client Project ID: 170264501
York Project (SDG) No.: 17G0203

Langan Engineering & Environmental Services (NYC)
21 Penn Plaza, 360 West 31st Street
New York NY, 10001
Attention: Brian Gochenaur

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 July 10, 2017 and listed below. The project was identified as your project: **170264501**.

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>
17G0203-01	MW07_071017	Water	07/10/2017	07/10/2017
17G0203-02	MW12_071017	Water	07/10/2017	07/10/2017
17G0203-03	MW13_071017	Water	07/10/2017	07/10/2017
17G0203-04	MW15_071017	Water	07/10/2017	07/10/2017
17G0203-05	MW14_071017	Water	07/10/2017	07/10/2017
17G0203-06	MW05_071017	Water	07/10/2017	07/10/2017
17G0203-07	MW16_071017	Water	07/10/2017	07/10/2017
17G0203-08	DUP01_071017	Water	07/10/2017	07/10/2017
17G0203-09	FB01_071017	Water	07/10/2017	07/10/2017
17G0203-10	TB01_071017	Water	07/10/2017	07/10/2017

General Notes for York Project (SDG) No.: 17G0203

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.
9. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 07/17/2017





Sample Information

Client Sample ID: MW07_071017

York Sample ID: 17G0203-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17G0203

170264501

Water

July 10, 2017 3:30 pm

07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
67-66-3	Chloroform	0.33	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS



Sample Information

Client Sample ID: MW07_071017

York Sample ID: 17G0203-01

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:30 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 15:36	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 15:36	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
127-18-4	Tetrachloroethylene	20	CCV-E, ICV-E, SCAL-E	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
79-01-6	Trichloroethylene	0.70		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/14/2017 10:32	07/14/2017 15:36	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	114 %	69-130								
2037-26-5	Surrogate: Toluene-d8	101 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	95.2 %	79-122								

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	18.4		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/14/2017 09:49	07/17/2017 14:35	KML

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

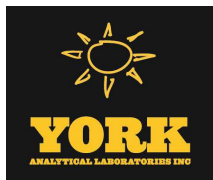
Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.239		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/12/2017 09:48	07/14/2017 15:24	KML

Sulfate as SO4

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: MW07_071017

York Sample ID: 17G0203-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17G0203

170264501

Water

July 10, 2017 3:30 pm

07/10/2017

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	6.94		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/11/2017 20:54	07/11/2017 20:54	DM1

Sample Information

Client Sample ID: MW12_071017

York Sample ID: 17G0203-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17G0203

170264501

Water

July 10, 2017 3:10 pm

07/10/2017

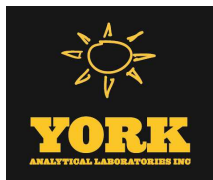
Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
78-93-3	2-Butanone	18	CCV-E	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
67-64-1	Acetone	380	SCAL-E	ug/L	10	20	10	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 14:13	SS
71-43-2	Benzene	0.25	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS



Sample Information

Client Sample ID: MW12_071017

York Sample ID: 17G0203-02

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:10 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
156-59-2	cis-1,2-Dichloroethylene	1.8		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
75-09-2	Methylene chloride	1.3	SCAL- E, J	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 16:16	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 16:16	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
127-18-4	Tetrachloroethylene	0.41	CCV-E, ICV-E, SCAL- E, J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
108-88-3	Toluene	0.72		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
79-01-6	Trichloroethylene	1.5		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
75-01-4	Vinyl Chloride	0.71		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/14/2017 10:32	07/14/2017 16:16	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	108 %	69-130								
2037-26-5	Surrogate: Toluene-d8	102 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	87.5 %	79-122								

Iron by EPA 6010

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: MW12_071017

York Sample ID: 17G0203-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17G0203

170264501

Water

July 10, 2017 3:10 pm

07/10/2017

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	37.2		mg/L	0.0222	1	EPA 6010C	07/14/2017 09:49	07/17/2017 14:40	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	1.39		mg/L	0.0222	1	EPA 6010C	07/12/2017 09:48	07/14/2017 15:29	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	ND		mg/L	1.00	1	EPA 300.0	07/11/2017 21:14	07/11/2017 21:14	DM1
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Sample Information

Client Sample ID: MW13_071017

York Sample ID: 17G0203-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17G0203

170264501

Water

July 10, 2017 2:50 pm

07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 16:56	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 16:56	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 16:56	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 16:56	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 16:56	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 16:56	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 16:56	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		



Sample Information

Client Sample ID: MW13_071017

York Sample ID: 17G0203-03

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 2:50 pm

Date Received
07/10/2017

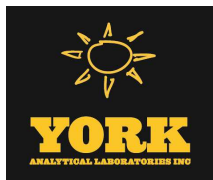
Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications:	07/14/2017 10:32 NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
67-64-1	Acetone	9.8	SCAL- E, B	ug/L	1.0	2.0	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
156-59-2	cis-1,2-Dichloroethylene	31		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	07/14/2017 10:32 NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 NELAC-NY10854	07/14/2017 16:56	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications:	07/14/2017 10:32 NELAC-NY10854	07/14/2017 16:56	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
127-18-4	Tetrachloroethylene	2.5	CCV-E, SCAL- E, ICV-E	ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS
108-88-3	Toluene	0.20	J	ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 16:56	SS



Sample Information

Client Sample ID: MW13_071017

York Sample ID: 17G0203-03

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 2:50 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
156-60-5	trans-1,2-Dichloroethylene	0.36	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:56	SS
79-01-6	Trichloroethylene	3.3		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:56	SS
75-01-4	Vinyl Chloride	10		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 16:56	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/14/2017 10:32	07/14/2017 16:56	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	107 %	69-130								
2037-26-5	Surrogate: Toluene-d8	104 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	96.3 %	79-122								

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	18.2		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/14/2017 09:49	07/17/2017 14:45	KML

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	ND		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/12/2017 09:48	07/14/2017 15:48	KML

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	ND		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/11/2017 21:34	07/11/2017 21:34	DM1

Sample Information

Client Sample ID: MW15_071017

York Sample ID: 17G0203-04

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:00 pm

Date Received
07/10/2017



Sample Information

Client Sample ID: MW15_071017

York Sample ID: 17G0203-04

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:00 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
67-66-3	Chloroform	0.58		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS



Sample Information

Client Sample ID: MW15_071017

York Sample ID: 17G0203-04

York Project (SDG) No.

17G0203

Client Project ID

170264501

Matrix

Water

Collection Date/Time

July 10, 2017 3:00 pm

Date Received

07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 17:36	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 17:36	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
127-18-4	Tetrachloroethylene	16		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
			CCV-E, SCAL- E, ICV-E								
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
79-01-6	Trichloroethylene	0.31	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/14/2017 10:32	07/14/2017 17:36	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	112 %	69-130								
2037-26-5	Surrogate: Toluene-d8	103 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	93.3 %	79-122								

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	2.31		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/14/2017 09:49	07/17/2017 14:51	KML

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

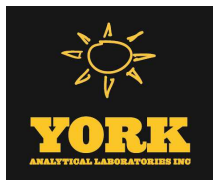
Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	ND		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/12/2017 09:48	07/14/2017 15:54	KML

Sulfate as SO4

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: MW15_071017

York Sample ID: 17G0203-04

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
17G0203	170264501	Water	July 10, 2017 3:00 pm	07/10/2017

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	12.1		mg/L	1.00	1	EPA 300.0	07/11/2017 21:53	07/11/2017 21:53	DM1
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Sample Information

Client Sample ID: MW14_071017

York Sample ID: 17G0203-05

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
17G0203	170264501	Water	July 10, 2017 2:40 pm	07/10/2017

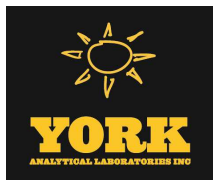
Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications:	07/14/2017 10:32 NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	07/14/2017 10:32 CTDOH,NELAC-NY10854,NJDEP	07/14/2017 18:16	SS



Sample Information

Client Sample ID: MW14_071017

York Sample ID: 17G0203-05

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 2:40 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	0.28	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
156-59-2	cis-1,2-Dichloroethylene	44		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 14:46	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	1.1		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 18:16	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 18:16	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
127-18-4	Tetrachloroethylene	30	CCV-E, SCAL- E, ICV-E	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
79-01-6	Trichloroethylene	11		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/14/2017 10:32	07/14/2017 18:16	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	112 %	69-130								
2037-26-5	Surrogate: Toluene-d8	103 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	88.1 %	79-122								

Iron by EPA 6010

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: MW14_071017

York Sample ID: 17G0203-05

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17G0203

170264501

Water

July 10, 2017 2:40 pm

07/10/2017

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.195		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/14/2017 09:49	07/17/2017 14:56	KML

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	ND		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/12/2017 09:48	07/14/2017 15:59	KML

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	55.3		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/11/2017 22:53	07/11/2017 22:53	DM1

Sample Information

Client Sample ID: MW05_071017

York Sample ID: 17G0203-06

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17G0203

170264501

Water

July 10, 2017 2:15 pm

07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS



Sample Information

Client Sample ID: MW05_071017

York Sample ID: 17G0203-06

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 2:15 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
67-66-3	Chloroform	1.8		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 18:56	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 18:56	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
127-18-4	Tetrachloroethylene	10	CCV-E, SCAL- E, ICV-E	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS



Sample Information

Client Sample ID: MW05_071017

York Sample ID: 17G0203-06

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 2:15 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
79-01-6	Trichloroethylene	0.38	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/14/2017 10:32	07/14/2017 18:56	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	115 %				69-130					
2037-26-5	Surrogate: Toluene-d8	101 %				81-117					
460-00-4	Surrogate: p-Bromofluorobenzene	86.8 %				79-122					

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.518		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/14/2017 09:49	07/17/2017 15:15	KML

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	ND		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/12/2017 09:48	07/14/2017 16:04	KML

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	10.7		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/11/2017 23:12	07/11/2017 23:12	DM1

Sample Information

Client Sample ID: MW16_071017

York Sample ID: 17G0203-07

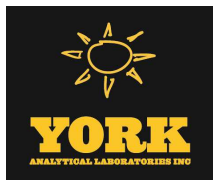
York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 11:30 am

Date Received
07/10/2017



Sample Information

Client Sample ID: MW16_071017

York Sample ID: 17G0203-07

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 11:30 am

Date Received
07/10/2017

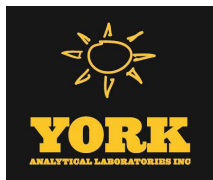
Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
67-66-3	Chloroform	0.52		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
156-59-2	cis-1,2-Dichloroethylene	10		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS



Sample Information

Client Sample ID: MW16_071017

York Sample ID: 17G0203-07

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 11:30 am

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/17/2017 07:30	07/17/2017 15:18	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/17/2017 07:30	07/17/2017 15:18	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
127-18-4	Tetrachloroethylene	20		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
79-01-6	Trichloroethylene	2.3		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
75-01-4	Vinyl Chloride	0.28	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/17/2017 07:30	07/17/2017 15:18	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	109 %		69-130							
2037-26-5	Surrogate: Toluene-d8	97.7 %		81-117							
460-00-4	Surrogate: p-Bromofluorobenzene	94.5 %		79-122							

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	6.42		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/14/2017 09:49	07/17/2017 15:20	KML

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	1.50		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/12/2017 09:48	07/14/2017 16:09	KML

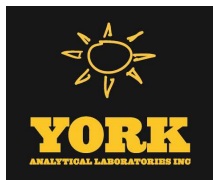
Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: MW16_071017

York Sample ID: 17G0203-07

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 11:30 am

Date Received
07/10/2017

Sulfate as SO₄

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	400		mg/L	10.0	10	EPA 300.0	07/15/2017 10:27	07/15/2017 10:27	AD
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		

Sample Information

Client Sample ID: DUP01_071017

York Sample ID: 17G0203-08

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:00 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	NELAC-NY10854,NJDEP		
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C	07/14/2017 10:32	07/14/2017 19:36	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP		



Sample Information

Client Sample ID: DUP01_071017

York Sample ID: 17G0203-08

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:00 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
67-66-3	Chloroform	0.60		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
156-59-2	cis-1,2-Dichloroethylene	11		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 19:36	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 19:36	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
127-18-4	Tetrachloroethylene	15	ICV-E, CCV-E, SCAL-E	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
79-01-6	Trichloroethylene	1.9		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
75-01-4	Vinyl Chloride	0.29	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/14/2017 10:32	07/14/2017 19:36	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	116 %	69-130								
2037-26-5	Surrogate: Toluene-d8	101 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	83.4 %	79-122								



Sample Information

Client Sample ID: DUP01_071017

York Sample ID: 17G0203-08

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:00 pm

Date Received
07/10/2017

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	5.60		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/14/2017 09:49	07/17/2017 15:39	KML

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.692		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/12/2017 09:48	07/14/2017 16:29	KML

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	34.7		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/11/2017 23:52	07/11/2017 23:52	DM1

Sample Information

Client Sample ID: FB01_071017

York Sample ID: 17G0203-09

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:00 pm

Date Received
07/10/2017

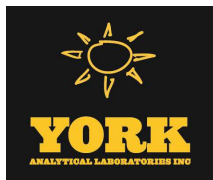
Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS



Sample Information

Client Sample ID: FB01_071017

York Sample ID: 17G0203-09

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:00 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
67-64-1	Acetone	2.8	SCAL- E, B	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
75-09-2	Methylene chloride	1.3	SCAL- E, J	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 14:16	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 14:16	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS



Sample Information

Client Sample ID: FB01_071017

York Sample ID: 17G0203-09

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:00 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/14/2017 10:32	07/14/2017 14:16	SS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	117 %			69-130						
2037-26-5	Surrogate: Toluene-d8	101 %			81-117						
460-00-4	Surrogate: p-Bromofluorobenzene	96.3 %			79-122						

Iron by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	ND		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/14/2017 09:49	07/17/2017 15:45	KML

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	ND		mg/L	0.0222	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/12/2017 09:48	07/11/2017 16:34	KML

Sulfate as SO4

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14808-79-8	Sulfate	ND		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/11/2017 19:18	07/11/2017 19:18	DM1

Sample Information

Client Sample ID: TB01_071017

York Sample ID: 17G0203-10

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:00 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: TB01_071017

York Sample ID: 17G0203-10

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

17G0203

170264501

Water

July 10, 2017 3:00 pm

07/10/2017

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
67-64-1	Acetone	2.4	SCAL- E, B	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 14:56	SS



Sample Information

Client Sample ID: TB01_071017

York Sample ID: 17G0203-10

York Project (SDG) No.
17G0203

Client Project ID
170264501

Matrix
Water

Collection Date/Time
July 10, 2017 3:00 pm

Date Received
07/10/2017

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/14/2017 10:32	07/14/2017 14:56	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/14/2017 10:32	07/14/2017 14:56	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	113 %	69-130								
2037-26-5	Surrogate: Toluene-d8	101 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	96.9 %	79-122								



Analytical Batch Summary

Batch ID: BG70403

Preparation Method: EPA 3015A

Prepared By: SY

YORK Sample ID	Client Sample ID	Preparation Date
17G0203-01	MW07_071017	07/12/17
17G0203-02	MW12_071017	07/12/17
17G0203-03	MW13_071017	07/12/17
17G0203-04	MW15_071017	07/12/17
17G0203-05	MW14_071017	07/12/17
17G0203-06	MW05_071017	07/12/17
17G0203-07	MW16_071017	07/12/17
17G0203-08	DUP01_071017	07/12/17
17G0203-09	FB01_071017	07/12/17
BG70403-BLK1	Blank	07/12/17
BG70403-DUP1	Duplicate	07/12/17
BG70403-MS1	Matrix Spike	07/12/17
BG70403-SRM1	Reference	07/12/17

Batch ID: BG70426

Preparation Method: EPA 300

Prepared By: DM1

YORK Sample ID	Client Sample ID	Preparation Date
17G0203-01	MW07_071017	07/11/17
17G0203-02	MW12_071017	07/11/17
17G0203-03	MW13_071017	07/11/17
17G0203-04	MW15_071017	07/11/17
17G0203-05	MW14_071017	07/11/17
17G0203-06	MW05_071017	07/11/17
17G0203-08	DUP01_071017	07/11/17
17G0203-09	FB01_071017	07/11/17
BG70426-BLK1	Blank	07/11/17
BG70426-BS1	LCS	07/11/17
BG70426-DUP1	Duplicate	07/11/17
BG70426-MS1	Matrix Spike	07/11/17

Batch ID: BG70518

Preparation Method: EPA 5030B

Prepared By: RDS

YORK Sample ID	Client Sample ID	Preparation Date
17G0203-01	MW07_071017	07/14/17
17G0203-02	MW12_071017	07/14/17
17G0203-03	MW13_071017	07/14/17
17G0203-04	MW15_071017	07/14/17
17G0203-05	MW14_071017	07/14/17
17G0203-06	MW05_071017	07/14/17
17G0203-08	DUP01_071017	07/14/17
17G0203-09	FB01_071017	07/14/17
17G0203-10	TB01_071017	07/14/17
BG70518-BLK1	Blank	07/14/17
BG70518-BS1	LCS	07/14/17
BG70518-BSD1	LCS Dup	07/14/17



Batch ID: BG70539

Preparation Method: EPA 3015A

Prepared By: SY

YORK Sample ID	Client Sample ID	Preparation Date
17G0203-01	MW07_071017	07/14/17
17G0203-02	MW12_071017	07/14/17
17G0203-03	MW13_071017	07/14/17
17G0203-04	MW15_071017	07/14/17
17G0203-05	MW14_071017	07/14/17
17G0203-06	MW05_071017	07/14/17
17G0203-07	MW16_071017	07/14/17
17G0203-08	DUP01_071017	07/14/17
17G0203-09	FB01_071017	07/14/17
BG70539-BLK1	Blank	07/14/17
BG70539-DUP1	Duplicate	07/14/17
BG70539-MS1	Matrix Spike	07/14/17
BG70539-SRM1	Reference	07/14/17

Batch ID: BG70590

Preparation Method: EPA 5030B

Prepared By: RDS

YORK Sample ID	Client Sample ID	Preparation Date
17G0203-02RE1	MW12_071017	07/17/17
17G0203-05RE1	MW14_071017	07/17/17
17G0203-07	MW16_071017	07/17/17
BG70590-BLK1	Blank	07/17/17
BG70590-BS1	LCS	07/17/17
BG70590-BSD1	LCS Dup	07/17/17

Batch ID: BG70638

Preparation Method: EPA 300

Prepared By: AD

YORK Sample ID	Client Sample ID	Preparation Date
17G0203-07	MW16_071017	07/15/17
BG70638-BLK1	Blank	07/15/17
BG70638-BS1	LCS	07/15/17
BG70638-DUP1	Duplicate	07/15/17
BG70638-MS1	Matrix Spike	07/15/17



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG70518 - EPA 5030B

Blank (BG70518-BLK1)

Prepared & Analyzed: 07/14/2017

1,1,1-Trichloroethane	ND	0.50	ug/L								
1,1-Dichloroethane	ND	0.50	"								
1,1-Dichloroethylene	ND	0.50	"								
1,2,4-Trimethylbenzene	ND	0.50	"								
1,2-Dichlorobenzene	ND	0.50	"								
1,2-Dichloroethane	ND	0.50	"								
1,3,5-Trimethylbenzene	ND	0.50	"								
1,3-Dichlorobenzene	ND	0.50	"								
1,4-Dichlorobenzene	ND	0.50	"								
1,4-Dioxane	ND	80	"								
2-Butanone	ND	0.50	"								
Acetone	1.8	2.0	"								
Benzene	ND	0.50	"								
Carbon tetrachloride	ND	0.50	"								
Chlorobenzene	ND	0.50	"								
Chloroform	ND	0.50	"								
cis-1,2-Dichloroethylene	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Methylene chloride	ND	2.0	"								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
sec-Butylbenzene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Tetrachloroethylene	ND	0.50	"								
Toluene	ND	0.50	"								
trans-1,2-Dichloroethylene	ND	0.50	"								
Trichloroethylene	ND	0.50	"								
Vinyl Chloride	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
Surrogate: 1,2-Dichloroethane-d4	11.2		"	10.0		112	69-130				
Surrogate: Toluene-d8	10.1		"	10.0		101	81-117				
Surrogate: p-Bromofluorobenzene	9.75		"	10.0		97.5	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG70518 - EPA 5030B

LCS (BG70518-BS1)

Prepared & Analyzed: 07/14/2017

1,1,1-Trichloroethane	11		ug/L	10.0		106	78-136				
1,1-Dichloroethane	10		"	10.0		101	82-129				
1,1-Dichloroethylene	9.0		"	10.0		90.3	68-138				
1,2,4-Trimethylbenzene	10		"	10.0		103	82-132				
1,2-Dichlorobenzene	11		"	10.0		110	79-123				
1,2-Dichloroethane	12		"	10.0		119	73-132				
1,3,5-Trimethylbenzene	10		"	10.0		100	80-131				
1,3-Dichlorobenzene	11		"	10.0		106	86-122				
1,4-Dichlorobenzene	10		"	10.0		103	85-124				
1,4-Dioxane	260		"	200		132	10-349				
2-Butanone	12		"	10.0		116	49-152				
Acetone	11		"	10.0		112	14-150				
Benzene	9.9		"	10.0		98.9	85-126				
Carbon tetrachloride	10		"	10.0		99.5	77-141				
Chlorobenzene	10		"	10.0		103	88-120				
Chloroform	11		"	10.0		110	82-128				
cis-1,2-Dichloroethylene	10		"	10.0		103	83-129				
Ethyl Benzene	10		"	10.0		104	80-131				
Methyl tert-butyl ether (MTBE)	12		"	10.0		118	76-135				
Methylene chloride	9.7		"	10.0		96.9	55-137				
Naphthalene	22		"	10.0		219	70-147	High Bias			
n-Butylbenzene	10		"	10.0		101	79-132				
n-Propylbenzene	10		"	10.0		104	78-133				
o-Xylene	11		"	10.0		107	78-130				
p- & m- Xylenes	19		"	20.0		95.7	77-133				
sec-Butylbenzene	9.6		"	10.0		96.2	79-137				
tert-Butylbenzene	9.6		"	10.0		96.4	77-138				
Tetrachloroethylene	12		"	10.0		122	82-131				
Toluene	10		"	10.0		105	80-127				
trans-1,2-Dichloroethylene	10		"	10.0		99.5	80-132				
Trichloroethylene	12		"	10.0		121	82-128				
Vinyl Chloride	9.8		"	10.0		98.2	58-145				
Surrogate: 1,2-Dichloroethane-d4	11.4		"	10.0		114	69-130				
Surrogate: Toluene-d8	10.1		"	10.0		101	81-117				
Surrogate: p-Bromofluorobenzene	10.0		"	10.0		100	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG70518 - EPA 5030B

LCS Dup (BG70518-BSD1)

Prepared & Analyzed: 07/14/2017

1,1,1-Trichloroethane	11		ug/L	10.0		106	78-136		0.284	30	
1,1-Dichloroethane	10		"	10.0		104	82-129		2.72	30	
1,1-Dichloroethylene	9.3		"	10.0		93.0	68-138		2.95	30	
1,2,4-Trimethylbenzene	9.7		"	10.0		97.2	82-132		6.08	30	
1,2-Dichlorobenzene	11		"	10.0		108	79-123		1.28	30	
1,2-Dichloroethane	12		"	10.0		123	73-132		3.14	30	
1,3,5-Trimethylbenzene	9.1		"	10.0		91.3	80-131		9.30	30	
1,3-Dichlorobenzene	10		"	10.0		103	86-122		2.78	30	
1,4-Dichlorobenzene	10		"	10.0		102	85-124		1.08	30	
1,4-Dioxane	310		"	200		153	10-349		14.9	30	
2-Butanone	12		"	10.0		121	49-152		3.63	30	
Acetone	10		"	10.0		104	14-150		7.39	30	
Benzene	10		"	10.0		99.6	85-126		0.705	30	
Carbon tetrachloride	10		"	10.0		100	77-141		0.900	30	
Chlorobenzene	10		"	10.0		104	88-120		1.45	30	
Chloroform	11		"	10.0		111	82-128		1.18	30	
cis-1,2-Dichloroethylene	10		"	10.0		105	83-129		1.83	30	
Ethyl Benzene	10		"	10.0		105	80-131		0.478	30	
Methyl tert-butyl ether (MTBE)	12		"	10.0		124	76-135		5.36	30	
Methylene chloride	9.9		"	10.0		99.1	55-137		2.24	30	
Naphthalene	23		"	10.0		235	70-147	High Bias	6.74	30	
n-Butylbenzene	9.8		"	10.0		98.4	79-132		2.21	30	
n-Propylbenzene	9.5		"	10.0		95.3	78-133		8.35	30	
o-Xylene	11		"	10.0		111	78-130		3.39	30	
p- & m- Xylenes	19		"	20.0		95.2	77-133		0.524	30	
sec-Butylbenzene	8.9		"	10.0		89.1	79-137		7.66	30	
tert-Butylbenzene	8.5		"	10.0		85.2	77-138		12.3	30	
Tetrachloroethylene	11		"	10.0		112	82-131		8.96	30	
Toluene	11		"	10.0		106	80-127		1.23	30	
trans-1,2-Dichloroethylene	10		"	10.0		100	80-132		0.701	30	
Trichloroethylene	11		"	10.0		106	82-128		13.4	30	
Vinyl Chloride	10		"	10.0		101	58-145		2.61	30	
Surrogate: 1,2-Dichloroethane-d4	11.7		"	10.0		117	69-130				
Surrogate: Toluene-d8	10.1		"	10.0		101	81-117				
Surrogate: p-Bromofluorobenzene	9.11		"	10.0		91.1	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG70590 - EPA 5030B

Blank (BG70590-BLK1)

Prepared & Analyzed: 07/17/2017

1,1,1-Trichloroethane	ND	0.50	ug/L								
1,1-Dichloroethane	ND	0.50	"								
1,1-Dichloroethylene	ND	0.50	"								
1,2,4-Trimethylbenzene	ND	0.50	"								
1,2-Dichlorobenzene	ND	0.50	"								
1,2-Dichloroethane	ND	0.50	"								
1,3,5-Trimethylbenzene	ND	0.50	"								
1,3-Dichlorobenzene	ND	0.50	"								
1,4-Dichlorobenzene	ND	0.50	"								
1,4-Dioxane	ND	80	"								
2-Butanone	ND	0.50	"								
Acetone	ND	2.0	"								
Benzene	ND	0.50	"								
Carbon tetrachloride	ND	0.50	"								
Chlorobenzene	ND	0.50	"								
Chloroform	ND	0.50	"								
cis-1,2-Dichloroethylene	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Methylene chloride	ND	2.0	"								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
sec-Butylbenzene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Tetrachloroethylene	ND	0.50	"								
Toluene	ND	0.50	"								
trans-1,2-Dichloroethylene	ND	0.50	"								
Trichloroethylene	ND	0.50	"								
Vinyl Chloride	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
Surrogate: 1,2-Dichloroethane-d4	9.57		"	10.0		95.7	69-130				
Surrogate: Toluene-d8	10.2		"	10.0		102	81-117				
Surrogate: p-Bromofluorobenzene	10.5		"	10.0		105	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG70590 - EPA 5030B

LCS (BG70590-BS1)

Prepared & Analyzed: 07/17/2017

1,1,1-Trichloroethane	11		ug/L	10.0		106	78-136				
1,1-Dichloroethane	11		"	10.0		107	82-129				
1,1-Dichloroethylene	10		"	10.0		104	68-138				
1,2,4-Trimethylbenzene	11		"	10.0		108	82-132				
1,2-Dichlorobenzene	10		"	10.0		101	79-123				
1,2-Dichloroethane	10		"	10.0		99.8	73-132				
1,3,5-Trimethylbenzene	11		"	10.0		108	80-131				
1,3-Dichlorobenzene	11		"	10.0		106	86-122				
1,4-Dichlorobenzene	11		"	10.0		106	85-124				
1,4-Dioxane	350		"	200		173	10-349				
2-Butanone	11		"	10.0		107	49-152				
Acetone	8.8		"	10.0		87.7	14-150				
Benzene	11		"	10.0		107	85-126				
Carbon tetrachloride	11		"	10.0		105	77-141				
Chlorobenzene	10		"	10.0		105	88-120				
Chloroform	11		"	10.0		107	82-128				
cis-1,2-Dichloroethylene	11		"	10.0		107	83-129				
Ethyl Benzene	11		"	10.0		110	80-131				
Methyl tert-butyl ether (MTBE)	10		"	10.0		102	76-135				
Methylene chloride	9.2		"	10.0		91.6	55-137				
Naphthalene	11		"	10.0		106	70-147				
n-Butylbenzene	11		"	10.0		112	79-132				
n-Propylbenzene	11		"	10.0		109	78-133				
o-Xylene	11		"	10.0		108	78-130				
p- & m- Xylenes	22		"	20.0		110	77-133				
sec-Butylbenzene	11		"	10.0		110	79-137				
tert-Butylbenzene	11		"	10.0		108	77-138				
Tetrachloroethylene	10		"	10.0		100	82-131				
Toluene	10		"	10.0		104	80-127				
trans-1,2-Dichloroethylene	10		"	10.0		104	80-132				
Trichloroethylene	10		"	10.0		103	82-128				
Vinyl Chloride	10		"	10.0		104	58-145				
Surrogate: 1,2-Dichloroethane-d4	10.0		"	10.0		100	69-130				
Surrogate: Toluene-d8	9.77		"	10.0		97.7	81-117				
Surrogate: p-Bromofluorobenzene	9.77		"	10.0		97.7	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG70590 - EPA 5030B

LCS Dup (BG70590-BSD1)

Prepared & Analyzed: 07/17/2017

1,1,1-Trichloroethane	11		ug/L	10.0		107	78-136		0.376	30	
1,1-Dichloroethane	11		"	10.0		106	82-129		1.41	30	
1,1-Dichloroethylene	11		"	10.0		107	68-138		2.85	30	
1,2,4-Trimethylbenzene	11		"	10.0		106	82-132		2.24	30	
1,2-Dichlorobenzene	10		"	10.0		101	79-123		0.396	30	
1,2-Dichloroethane	10		"	10.0		100	73-132		0.500	30	
1,3,5-Trimethylbenzene	11		"	10.0		106	80-131		1.86	30	
1,3-Dichlorobenzene	10		"	10.0		103	86-122		2.96	30	
1,4-Dichlorobenzene	10		"	10.0		102	85-124		3.36	30	
1,4-Dioxane	330		"	200		166	10-349		4.49	30	
2-Butanone	9.4		"	10.0		93.7	49-152		13.0	30	
Acetone	7.6		"	10.0		75.9	14-150		14.4	30	
Benzene	11		"	10.0		106	85-126		0.749	30	
Carbon tetrachloride	11		"	10.0		107	77-141		1.32	30	
Chlorobenzene	10		"	10.0		103	88-120		1.35	30	
Chloroform	10		"	10.0		105	82-128		2.55	30	
cis-1,2-Dichloroethylene	11		"	10.0		106	83-129		0.468	30	
Ethyl Benzene	11		"	10.0		110	80-131		0.182	30	
Methyl tert-butyl ether (MTBE)	9.6		"	10.0		95.5	76-135		6.78	30	
Methylene chloride	9.1		"	10.0		91.2	55-137		0.438	30	
Naphthalene	11		"	10.0		111	70-147		4.87	30	
n-Butylbenzene	11		"	10.0		110	79-132		1.90	30	
n-Propylbenzene	11		"	10.0		110	78-133		0.366	30	
o-Xylene	11		"	10.0		110	78-130		1.56	30	
p- & m- Xylenes	22		"	20.0		111	77-133		1.04	30	
sec-Butylbenzene	11		"	10.0		108	79-137		1.29	30	
tert-Butylbenzene	11		"	10.0		106	77-138		1.40	30	
Tetrachloroethylene	10		"	10.0		101	82-131		0.199	30	
Toluene	11		"	10.0		106	80-127		1.43	30	
trans-1,2-Dichloroethylene	10		"	10.0		104	80-132		0.288	30	
Trichloroethylene	11		"	10.0		106	82-128		3.15	30	
Vinyl Chloride	10		"	10.0		103	58-145		0.483	30	
Surrogate: 1,2-Dichloroethane-d4	9.76		"	10.0		97.6	69-130				
Surrogate: Toluene-d8	9.81		"	10.0		98.1	81-117				
Surrogate: p-Bromofluorobenzene	9.49		"	10.0		94.9	79-122				



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG70403 - EPA 3015A											
Blank (BG70403-BLK1)											
										Prepared: 07/12/2017 Analyzed: 07/14/2017	
Iron - Dissolved	ND	0.0222	mg/L								
Duplicate (BG70403-DUP1)											
										Prepared: 07/12/2017 Analyzed: 07/14/2017	
Iron - Dissolved	1.82	0.0222	mg/L		1.50				19.1	20	
Matrix Spike (BG70403-MS1)											
										Prepared: 07/12/2017 Analyzed: 07/14/2017	
Iron - Dissolved	2.95	0.0222	mg/L	1.11	1.50	130	75-125	High Bias			
Reference (BG70403-SRM1)											
										Prepared: 07/12/2017 Analyzed: 07/14/2017	
Iron - Dissolved	0.718		ug/mL	0.759		94.6	84.9-115				
Batch BG70539 - EPA 3015A											
Blank (BG70539-BLK1)											
										Prepared: 07/14/2017 Analyzed: 07/17/2017	
Iron	ND	0.0222	mg/L								
Duplicate (BG70539-DUP1)											
										Prepared: 07/14/2017 Analyzed: 07/17/2017	
Iron	6.14	0.0222	mg/L		6.42				4.51	20	
Matrix Spike (BG70539-MS1)											
										Prepared: 07/14/2017 Analyzed: 07/17/2017	
Iron	8.43	0.0222	mg/L	1.11	6.42	180	75-125	High Bias			
Reference (BG70539-SRM1)											
										Prepared: 07/14/2017 Analyzed: 07/17/2017	
Iron	0.459		ug/mL	0.759		60.5	84.9-115	Low Bias			



Anions by Ion Chromatography - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG70426 - EPA 300											
Blank (BG70426-BLK1)								Prepared & Analyzed: 07/11/2017			
Sulfate	ND	1.00	mg/L								
LCS (BG70426-BS1)								Prepared & Analyzed: 07/11/2017			
Sulfate	9.35	1.00	mg/L	10.0		93.5	85-115				
Duplicate (BG70426-DUP1) *Source sample: 17G0203-09 (FB01_071017)								Prepared & Analyzed: 07/11/2017			
Sulfate	ND	1.00	mg/L		ND					15	
Matrix Spike (BG70426-MS1) *Source sample: 17G0203-09 (FB01_071017)								Prepared & Analyzed: 07/11/2017			
Sulfate	9.43	1.00	mg/L	10.0	ND	94.3	85-115				
Batch BG70638 - EPA 300											
Blank (BG70638-BLK1)								Prepared & Analyzed: 07/15/2017			
Sulfate	ND	1.00	mg/L								
LCS (BG70638-BS1)								Prepared & Analyzed: 07/15/2017			
Sulfate	9.38	1.00	mg/L	10.0		93.8	85-115				
Duplicate (BG70638-DUP1) *Source sample: 17G0203-07 (MW16_071017)								Prepared & Analyzed: 07/15/2017			
Sulfate	404	10.0	mg/L		400				0.865	15	
Matrix Spike (BG70638-MS1) *Source sample: 17G0203-07 (MW16_071017)								Prepared & Analyzed: 07/15/2017			
Sulfate	519	10.0	mg/L	10.0	400	NR	85-115	High Bias			



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
17G0203-01	MW07_071017	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17G0203-02	MW12_071017	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17G0203-03	MW13_071017	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17G0203-04	MW15_071017	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17G0203-05	MW14_071017	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17G0203-06	MW05_071017	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17G0203-07	MW16_071017	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17G0203-08	DUP01_071017	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17G0203-09	FB01_071017	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
17G0203-10	TB01_071017	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

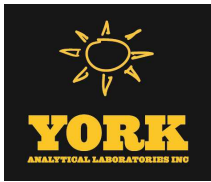


Notes and Definitions

SCAL-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
ICV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

*	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.



York Analytical Laboratories, Inc.
120 Research Drive 132-02 89th Ave
Stratford, CT 06615 Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record

YORK Project No.

1760725

Page 2 of 2

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
Your signature binds you to YORK's Standard Terms & Conditions.

[illegible]

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2017
Issued April 01, 2016
Revised February 28, 2017

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. ROBERT Q. BRADLEY
YORK ANALYTICAL LABORATORIES INC
120 RESEARCH DRIVE
STRATFORD, CT 06615

NY Lab Id No: 10854

is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2003) for the category
ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved analytes are listed below:

Acrylates		Chlorinated Hydrocarbon Pesticides	
Acrolein (Propenal)	EPA 8260C EPA 624	4,4'-DDD	EPA 8081B EPA 608
Acrylonitrile	EPA 8260C EPA 624	4,4'-DDE	EPA 8081B EPA 608
Methyl methacrylate	EPA 8260C	4,4'-DDT	EPA 8081B EPA 608
Amines		Aldrin	EPA 8081B EPA 608
1,2-Diphenylhydrazine	EPA 8270D	alpha-BHC	EPA 8081B EPA 608
2-Nitroaniline	EPA 8270D	alpha-Chlordane	EPA 8081B EPA 608
3-Nitroaniline	EPA 8270D	beta-BHC	EPA 8081B EPA 608
4-Chloroaniline	EPA 8270D	Chlordane Total	EPA 8081B EPA 608
4-Nitroaniline	EPA 8270D	delta-BHC	EPA 8081B EPA 608
Aniline	EPA 625 EPA 8270D	Dieldrin	EPA 8081B EPA 608
Carbazole	EPA 625 EPA 8270D	Endosulfan I	EPA 8081B EPA 608
Diphenylamine	EPA 8270D	Endosulfan II	EPA 8081B EPA 608
Pyridine	EPA 625 EPA 8270D	Endosulfan sulfate	EPA 8081B EPA 608
Benzidines		Endrin	EPA 8081B
3,3'-Dichlorobenzidine	EPA 625 EPA 8270D		
Benzidine	EPA 625 EPA 8270D		

Serial No.: 55504

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Chlorinated Hydrocarbon Pesticides

Endrin	EPA 608
Endrin aldehyde	EPA 8081B
	EPA 608
Endrin Ketone	EPA 8081B
gamma-Chlordane	EPA 8081B
Heptachlor	EPA 8081B
	EPA 608
Heptachlor epoxide	EPA 8081B
	EPA 608
Lindane	EPA 8081B
	EPA 608
Methoxychlor	EPA 8081B
	EPA 608
Mirex	EPA 8081B
Toxaphene	EPA 8081B
	EPA 608

Chlorinated Hydrocarbons

1,2,3-Trichlorobenzene	EPA 8260C
1,2,4,5-Tetrachlorobenzene	EPA 8270D
1,2,4-Trichlorobenzene	EPA 625
	EPA 8270D
2-Chloronaphthalene	EPA 625
	EPA 8270D
Hexachlorobenzene	EPA 625
	EPA 8270D

Chlorinated Hydrocarbons

Hexachlorobutadiene	EPA 625
	EPA 8270D
Hexachlorocyclopentadiene	EPA 625
	EPA 8270D
Hexachloroethane	EPA 625
	EPA 8270D
Pentachlorobenzene	EPA 8270D

Chlorophenoxy Acid Pesticides

2,4,5-T	EPA 8151A
2,4,5-TP (Silvex)	EPA 8151A
	SM 6640B-01
2,4-D	EPA 8151A
Dicamba	EPA 8151A

Demand

Biochemical Oxygen Demand	SM 5210B-01,-11
Carbonaceous BOD	SM 5210B-01,-11
Chemical Oxygen Demand	SM 5220D-97,-11

Fuel Oxygenates

Di-isopropyl ether	EPA 8260C
Ethanol	EPA 8260C
Methyl tert-butyl ether	EPA 8260C
tert-amyl alcohol	EPA 8260C
tert-amyl methyl ether (TAME)	EPA 8260C
tert-butyl alcohol	EPA 8260C

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Fuel Oxygenates

tert-butyl ethyl ether (ETBE) EPA 8260C

Haloethers

2,2'-Oxybis(1-chloropropane) EPA 625
EPA 8270D

4-Bromophenylphenyl ether EPA 625
EPA 8270D

4-Chlorophenylphenyl ether EPA 625
EPA 8270D

Bis(2-chloroethoxy)methane EPA 625
EPA 8270D

Bis(2-chloroethyl)ether EPA 625
EPA 8270D

Low Level Halocarbons

1,2,3-Trichloropropane, Low Level EPA 8011

1,2-Dibromo-3-chloropropane, Low Level EPA 8011

1,2-Dibromoethane, Low Level EPA 8011

Low Level Polynuclear Aromatics

Acenaphthene Low Level EPA 8270D

Acenaphthylene Low Level EPA 8270D

Anthracene Low Level EPA 8270D

Benzo(a)anthracene Low Level EPA 8270D

Benzo(a)pyrene Low Level EPA 8270D

Benzo(b)fluoranthene Low Level EPA 8270D

Benzo(g,h,i)perylene Low Level EPA 8270D

Low Level Polynuclear Aromatics

Benzo(k)fluoranthene Low Level EPA 8270D

Chrysene Low Level EPA 8270D

Dibenzo(a,h)anthracene Low Level EPA 8270D

Fluoranthene Low Level EPA 8270D

Fluorene Low Level EPA 8270D

Indeno(1,2,3-cd)pyrene Low Level EPA 8270D

Naphthalene Low Level EPA 8270D

Phenanthrene Low Level EPA 8270D

Pyrene Low Level EPA 8270D

Metals I

Barium, Total EPA 200.7 Rev. 4.4
EPA 6010C
EPA 6020A

Cadmium, Total EPA 200.8 Rev. 5.4
EPA 200.7 Rev. 4.4
EPA 6010C
EPA 6020A

Calcium, Total EPA 200.8 Rev. 5.4
EPA 200.7 Rev. 4.4
EPA 6010C

Chromium, Total EPA 200.7 Rev. 4.4
EPA 6010C
EPA 6020A

Copper, Total EPA 200.8 Rev. 5.4
EPA 200.7 Rev. 4.4

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Metals I

Copper, Total	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Iron, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Lead, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Magnesium, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
Manganese, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Nickel, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Potassium, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
Silver, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A

Metals I

Silver, Total	EPA 200.8 Rev. 5.4
Sodium, Total	EPA 200.7 Rev. 4.4
	EPA 6010C

Metals II

Aluminum, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Antimony, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Arsenic, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Beryllium, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Chromium VI	EPA 7196A
	SM 3500-Cr B-09,-11
Mercury, Total	EPA 245.1 Rev. 3.0
	EPA 245.2 (1974, Rev. 1983)
	EPA 7470A

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NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2017
Issued April 01, 2016
Revised February 28, 2017

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. ROBERT Q. BRADLEY
YORK ANALYTICAL LABORATORIES INC
120 RESEARCH DRIVE
STRATFORD, CT 06615

NY Lab Id No: 10854

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National Environmental Laboratory Accreditation Conference Standards (2003) for the category
ENVIRONMENTAL ANALYSES NON POTABLE WATER
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Metals II

Mercury, Total	EPA 7473
Selenium, Total	EPA 200.7 Rev. 4.4 EPA 6010C
Vanadium, Total	EPA 200.7 Rev. 4.4 EPA 6010C EPA 6020A EPA 200.8 Rev. 5.4
Zinc, Total	EPA 200.7 Rev. 4.4 EPA 6010C

Metals III

Cobalt, Total	EPA 200.7 Rev. 4.4 EPA 6010C EPA 6020A EPA 200.8 Rev. 5.4
Molybdenum, Total	EPA 6020A EPA 200.8 Rev. 5.4
Thallium, Total	EPA 200.7 Rev. 4.4 EPA 6010C EPA 6020A EPA 200.8 Rev. 5.4
Tin, Total	EPA 6020A EPA 200.8 Rev. 5.4
Titanium, Total	EPA 6020A EPA 200.8 Rev. 5.4

Mineral

Alkalinity	SM 2320B-97,-11
Calcium Hardness	EPA 200.7 Rev. 4.4
Chloride	EPA 300.0 Rev. 2.1
Fluoride, Total	EPA 300.0 Rev. 2.1
Hardness, Total	EPA 200.7 Rev. 4.4
Sulfate (as SO ₄)	EPA 300.0 Rev. 2.1

Miscellaneous

Boron, Total	EPA 6020A EPA 200.8 Rev. 5.4
Bromide	EPA 300.0 Rev. 2.1
Color	SM 2120B-01,-11
Cyanide, Total	SM 4500-CN E-99,-11
Oil and Grease Total Recoverable (HEM)	EPA 1664A
Organic Carbon, Total	SM 5310C-00,-11
Phenols	EPA 420.1 Rev. 1978
Specific Conductance	EPA 120.1 Rev. 1982
Sulfide (as S)	SM 4500-S2- F-00,-11
Surfactant (MBAS)	SM 5540C-00,-11
Turbidity	EPA 180.1 Rev. 2.0

Nitroaromatics and Isophorone

2,4-Dinitrotoluene	EPA 625 EPA 8270D
2,6-Dinitrotoluene	EPA 625 EPA 8270D
Isophorone	EPA 625

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Nitroaromatics and Isophorone

Isophorone	EPA 8270D
Nitrobenzene	EPA 625
	EPA 8270D

Nitrosoamines

N-Nitrosodimethylamine	EPA 625
	EPA 8270D
N-Nitrosodi-n-propylamine	EPA 625
	EPA 8270D
N-Nitrosodiphenylamine	EPA 625
	EPA 8270D

Nutrient

Ammonia (as N)	SM 4500-NH3 D or E-97,-11
Kjeldahl Nitrogen, Total	SM 4500-N Org D-97,-11
	SM 4500-NH3 D or E-97,-11
Nitrate (as N)	EPA 300.0 Rev. 2.1
Nitrite (as N)	EPA 300.0 Rev. 2.1
Orthophosphate (as P)	EPA 300.0 Rev. 2.1
	SM 4500-P E-99,-11
Phosphorus, Total	SM 4500-P E-99,-11

Organophosphate Pesticides

Atrazine	EPA 8270D
Parathion ethyl	EPA 8270D

Petroleum Hydrocarbons

Diesel Range Organics	EPA 8015D
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Petroleum Hydrocarbons

Gasoline Range Organics	EPA 8015D
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Phthalate Esters

Benzyl butyl phthalate	EPA 625
	EPA 8270D
Bis(2-ethylhexyl) phthalate	EPA 625
	EPA 8270D
Diethyl phthalate	EPA 625
	EPA 8270D
Dimethyl phthalate	EPA 625
	EPA 8270D
Di-n-butyl phthalate	EPA 625
	EPA 8270D
Di-n-octyl phthalate	EPA 625
	EPA 8270D

Polychlorinated Biphenyls

PCB-1016	EPA 8082A
	EPA 608
PCB-1221	EPA 8082A
	EPA 608
PCB-1232	EPA 8082A
	EPA 608
PCB-1242	EPA 8082A
	EPA 608
PCB-1248	EPA 8082A
	EPA 608

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Polychlorinated Biphenyls

PCB-1254	EPA 8082A
	EPA 608
PCB-1260	EPA 8082A
	EPA 608
PCB-1262	EPA 8082A
PCB-1268	EPA 8082A

Polynuclear Aromatics

Acenaphthene	EPA 625
	EPA 8270D
Acenaphthylene	EPA 625
	EPA 8270D
Anthracene	EPA 625
	EPA 8270D
Benzo(a)anthracene	EPA 625
	EPA 8270D
Benzo(a)pyrene	EPA 625
	EPA 8270D
Benzo(b)fluoranthene	EPA 625
	EPA 8270D
Benzo(ghi)perylene	EPA 625
	EPA 8270D
Benzo(k)fluoranthene	EPA 625
	EPA 8270D
Chrysene	EPA 625
	EPA 8270D

Polynuclear Aromatics

Dibenzo(a,h)anthracene	EPA 625
	EPA 8270D
Fluoranthene	EPA 625
	EPA 8270D
Fluorene	EPA 625
	EPA 8270D
Indeno(1,2,3-cd)pyrene	EPA 625
	EPA 8270D
Naphthalene	EPA 625
	EPA 8270D
Phenanthrene	EPA 625
	EPA 8270D
Pyrene	EPA 625
	EPA 8270D

Priority Pollutant Phenols

2,3,4,6 Tetrachlorophenol	EPA 8270D
2,4,5-Trichlorophenol	EPA 625
	EPA 8270D
2,4,6-Trichlorophenol	EPA 625
	EPA 8270D
2,4-Dichlorophenol	EPA 625
	EPA 8270D
2,4-Dimethylphenol	EPA 625
	EPA 8270D
2,4-Dinitrophenol	EPA 625

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Priority Pollutant Phenols

2,4-Dinitrophenol	EPA 8270D
2-Chlorophenol	EPA 625
	EPA 8270D
2-Methyl-4,6-dinitrophenol	EPA 625
	EPA 8270D
2-Methylphenol	EPA 625
	EPA 8270D
2-Nitrophenol	EPA 625
	EPA 8270D
4-Chloro-3-methylphenol	EPA 625
	EPA 8270D
4-Methylphenol	EPA 625
	EPA 8270D
4-Nitrophenol	EPA 625
	EPA 8270D
Cresols, Total	EPA 8270D
Pentachlorophenol	EPA 625
	EPA 8270D
Phenol	EPA 625
	EPA 8270D

Residue

Settleable Solids	SM 2540 F-97,-11
Solids, Total	SM 2540 B-97,-11
Solids, Total Dissolved	SM 2540 C-97,-11
Solids, Total Suspended	SM 2540 D-97,-11

Semi-Volatile Organics

1,1'-Biphenyl	EPA 8270D
1,2-Dichlorobenzene, Semi-volatile	EPA 8270D
1,3-Dichlorobenzene, Semi-volatile	EPA 8270D
1,4-Dichlorobenzene, Semi-volatile	EPA 8270D
2-Methylnaphthalene	EPA 8270D
Acetophenone	EPA 8270D
alpha-Terpineol	EPA 625
Benzaldehyde	EPA 8270D
Benzoic Acid	EPA 8270D
Benzyl alcohol	EPA 8270D
Caprolactam	EPA 8270D
Dibenzofuran	EPA 8270D

Volatile Aromatics

1,2,4-Trichlorobenzene, Volatile	EPA 8260C
1,2,4-Trimethylbenzene	EPA 8260C
1,2-Dichlorobenzene	EPA 8260C
	EPA 624
1,3,5-Trimethylbenzene	EPA 8260C
1,3-Dichlorobenzene	EPA 8260C
	EPA 624
1,4-Dichlorobenzene	EPA 8260C
	EPA 624
2-Chlorotoluene	EPA 8260C
4-Chlorotoluene	EPA 8260C
Benzene	EPA 8260C

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Volatile Aromatics

Benzene	EPA 624
Bromobenzene	EPA 8260C
Chlorobenzene	EPA 8260C
	EPA 624
Ethyl benzene	EPA 8260C
	EPA 624
Isopropylbenzene	EPA 8260C
m/p-Xylenes	EPA 8260C
	EPA 624
Naphthalene, Volatile	EPA 8260C
n-Butylbenzene	EPA 8260C
n-Propylbenzene	EPA 8260C
o-Xylene	EPA 8260C
	EPA 624
p-Isopropyltoluene (P-Cymene)	EPA 8260C
sec-Butylbenzene	EPA 8260C
Styrene	EPA 8260C
	EPA 624
tert-Butylbenzene	EPA 8260C
Toluene	EPA 8260C
	EPA 624
Total Xylenes	EPA 8260C
	EPA 624

Volatile Halocarbons

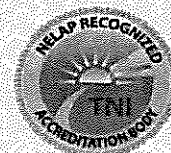
1,1,1,2-Tetrachloroethane	EPA 8260C
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Volatile Halocarbons

1,1,1-Trichloroethane	EPA 8260C
	EPA 624
1,1,2,2-Tetrachloroethane	EPA 8260C
	EPA 624
1,1,2-Trichloro-1,2,2-Trifluoroethane	EPA 8260C
1,1,2-Trichloroethane	EPA 8260C
	EPA 624
1,1-Dichloroethane	EPA 8260C
	EPA 624
1,1-Dichloroethene	EPA 8260C
	EPA 624
1,1-Dichloropropene	EPA 8260C
1,2,3-Trichloropropane	EPA 8260C
1,2-Dibromo-3-chloropropane	EPA 8260C
1,2-Dibromoethane	EPA 8260C
1,2-Dichloroethane	EPA 8260C
	EPA 624
1,2-Dichloropropane	EPA 8260C
	EPA 624
1,3-Dichloropropane	EPA 8260C
2,2-Dichloropropane	EPA 8260C
2-Chloroethylvinyl ether	EPA 8260C
	EPA 624
Bromochloromethane	EPA 8260C
Bromodichloromethane	EPA 8260C
	EPA 624

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Volatile Halocarbons

Bromoform	EPA 8260C EPA 624
Bromomethane	EPA 8260C EPA 624
Carbon tetrachloride	EPA 8260C EPA 624
Chloroethane	EPA 8260C EPA 624
Chloroform	EPA 8260C EPA 624
Chloromethane	EPA 8260C EPA 624
cis-1,2-Dichloroethene	EPA 8260C EPA 624
cis-1,3-Dichloropropene	EPA 8260C EPA 624
Dibromochloromethane	EPA 8260C EPA 624
Dibromomethane	EPA 8260C EPA 624
Dichlorodifluoromethane	EPA 8260C EPA 624
Hexachlorobutadiene, Volatile	EPA 8260C EPA 624
Methylene chloride	EPA 8260C EPA 624
Tetrachloroethene	EPA 8260C EPA 624

Volatile Halocarbons

trans-1,2-Dichloroethene	EPA 8260C EPA 624
trans-1,3-Dichloropropene	EPA 8260C EPA 624
trans-1,4-Dichloro-2-butene	EPA 8260C
Trichloroethene	EPA 8260C EPA 624
Trichlorofluoromethane	EPA 8260C EPA 624
Vinyl chloride	EPA 8260C EPA 624

Volatiles Organics

1,4-Dioxane	EPA 8260C
2-Butanone (Methylethyl ketone)	EPA 8260C
2-Hexanone	EPA 8260C
4-Methyl-2-Pentanone	EPA 8260C
Acetone	EPA 8260C
Carbon Disulfide	EPA 8260C
Cyclohexane	EPA 8260C
Methyl acetate	EPA 8260C
Methyl cyclohexane	EPA 8260C
Vinyl acetate	EPA 8260C

Sample Preparation Methods

SM 4500-P B(5)-99,-11
EPA 5030C

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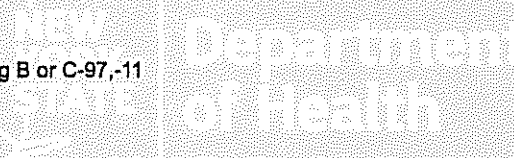
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Sample Preparation Methods

SM 4500-CN B or C-99,-11
EPA 3015A
EPA 3010A
EPA 3005A
EPA 3510C
SM 4500-N Org B or C-97,-11



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Acrylates

Acrolein (Propenal)	EPA 8260C
	EPA 624
Acrylonitrile	EPA 8260C
	EPA 624
Methyl methacrylate	EPA 8260C

Amines

1,2-Diphenylhydrazine	EPA 8270D
2-Nitroaniline	EPA 8270D
3-Nitroaniline	EPA 8270D
4-Chloroaniline	EPA 8270D
4-Nitroaniline	EPA 8270D
Aniline	EPA 625
	EPA 8270D
Carbazole	EPA 625
	EPA 8270D
Diphenylamine	EPA 8270D
Pyridine	EPA 625
	EPA 8270D

Benzidines

3,3'-Dichlorobenzidine	EPA 625
	EPA 8270D
Benzidine	EPA 625
	EPA 8270D

Chlorinated Hydrocarbon Pesticides

4,4'-DDD	EPA 8081B
	EPA 608
4,4'-DDE	EPA 8081B
	EPA 608
4,4'-DDT	EPA 8081B
	EPA 608
Aldrin	EPA 8081B
	EPA 608
alpha-BHC	EPA 8081B
	EPA 608
alpha-Chlordane	EPA 8081B
beta-BHC	EPA 8081B
	EPA 608
Chlordane Total	EPA 8081B
	EPA 608
delta-BHC	EPA 8081B
	EPA 608
Dieldrin	EPA 8081B
	EPA 608
Endosulfan I	EPA 8081B
	EPA 608
Endosulfan II	EPA 8081B
	EPA 608
Endosulfan sulfate	EPA 8081B
	EPA 608
Endrin	EPA 8081B

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Chlorinated Hydrocarbon Pesticides

Endrin	EPA 608
Endrin aldehyde	EPA 8081B
	EPA 608
Endrin Ketone	EPA 8081B
gamma-Chlordane	EPA 8081B
Heptachlor	EPA 8081B
	EPA 608
Heptachlor epoxide	EPA 8081B
	EPA 608
Lindane	EPA 8081B
	EPA 608
Methoxychlor	EPA 8081B
	EPA 608
Mirex	EPA 8081B
Toxaphene	EPA 8081B
	EPA 608

Chlorinated Hydrocarbons

1,2,3-Trichlorobenzene	EPA 8260C
1,2,4,5-Tetrachlorobenzene	EPA 8270D
1,2,4-Trichlorobenzene	EPA 625
	EPA 8270D
2-Chloronaphthalene	EPA 625
	EPA 8270D
Hexachlorobenzene	EPA 625
	EPA 8270D

Chlorinated Hydrocarbons

Hexachlorobutadiene	EPA 625
	EPA 8270D
Hexachlorocyclopentadiene	EPA 625
	EPA 8270D
Hexachloroethane	EPA 625
	EPA 8270D
Pentachlorobenzene	EPA 8270D

Chlorophenoxy Acid Pesticides

2,4,5-T	EPA 8151A
2,4,5-TP (Silvex)	EPA 8151A
	SM 6640B-01
2,4-D	EPA 8151A
Dicamba	EPA 8151A

Demand

Biochemical Oxygen Demand	SM 5210B-01,-11
Carbonaceous BOD	SM 5210B-01,-11
Chemical Oxygen Demand	SM 5220D-97,-11

Fuel Oxygenates

Di-isopropyl ether	EPA 8260C
Ethanol	EPA 8260C
Methyl tert-butyl ether	EPA 8260C
tert-amyl alcohol	EPA 8260C
tert-amyl methyl ether (TAME)	EPA 8260C
tert-butyl alcohol	EPA 8260C

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ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved analytes are listed below:*

Fuel Oxygenates

tert-butyl ethyl ether (ETBE) EPA 8260C

Haloethers

2,2'-Oxybis(1-chloropropane) EPA 625

EPA 8270D

4-Bromophenylphenyl ether EPA 625

EPA 8270D

4-Chlorophenylphenyl ether EPA 625

EPA 8270D

Bis(2-chloroethoxy)methane EPA 625

EPA 8270D

Bis(2-chloroethyl)ether EPA 625

EPA 8270D

Low Level Halocarbons

1,2,3-Trichloropropane, Low Level EPA 8011

1,2-Dibromo-3-chloropropane, Low Level EPA 8011

1,2-Dibromoethane, Low Level EPA 8011

Low Level Polynuclear Aromatics

Acenaphthene Low Level EPA 8270D

Acenaphthylene Low Level EPA 8270D

Anthracene Low Level EPA 8270D

Benzo(a)anthracene Low Level EPA 8270D

Benzo(a)pyrene Low Level EPA 8270D

Benzo(b)fluoranthene Low Level EPA 8270D

Benzo(g,h,i)perylene Low Level EPA 8270D

Low Level Polynuclear Aromatics

Benzo(k)fluoranthene Low Level EPA 8270D

Chrysene Low Level EPA 8270D

Dibenzo(a,h)anthracene Low Level EPA 8270D

Fluoranthene Low Level EPA 8270D

Fluorene Low Level EPA 8270D

Indeno(1,2,3-cd)pyrene Low Level EPA 8270D

Naphthalene Low Level EPA 8270D

Phenanthrene Low Level EPA 8270D

Pyrene Low Level EPA 8270D

Metals I

Barium, Total EPA 200.7 Rev. 4.4

EPA 6010C

EPA 6020A

EPA 200.8 Rev. 5.4

Cadmium, Total EPA 200.7 Rev. 4.4

EPA 6010C

EPA 6020A

EPA 200.8 Rev. 5.4

Calcium, Total EPA 200.7 Rev. 4.4

EPA 6010C

Chromium, Total EPA 200.7 Rev. 4.4

EPA 6010C

EPA 6020A

EPA 200.8 Rev. 5.4

Copper, Total EPA 200.7 Rev. 4.4

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NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



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Issued April 01, 2017
Revised May 18, 2017

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. ROBERT Q. BRADLEY
YORK ANALYTICAL LABORATORIES INC
120 RESEARCH DRIVE
STRATFORD, CT 06615

NY Lab Id No: 10854

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Metals I

Copper, Total	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Iron, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Lead, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Magnesium, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
Manganese, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Nickel, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Potassium, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
Silver, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A

Metals I

Silver, Total	EPA 200.8 Rev. 5.4
Sodium, Total	EPA 200.7 Rev. 4.4
	EPA 6010C

Metals II

Aluminum, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Antimony, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Arsenic, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Beryllium, Total	EPA 200.7 Rev. 4.4
	EPA 6010C
	EPA 6020A
	EPA 200.8 Rev. 5.4
Chromium VI	EPA 7196A
	SM 3500-Cr B-09,-11
Mercury, Total	EPA 245.1 Rev. 3.0
	EPA 245.2 (1974, Rev. 1983)
	EPA 7470A

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Metals II		Metals III	
Mercury, Total	EPA 7473	Titanium, Total	EPA 200.8 Rev. 5.4
Selenium, Total	EPA 200.7 Rev. 4.4	Mineral	
	EPA 6010C		
	EPA 6020A		
	EPA 200.8 Rev. 5.4		
Vanadium, Total	EPA 200.7 Rev. 4.4		
	EPA 6010C	Alkalinity	SM 2320B-97,-11
	EPA 6020A	Calcium Hardness	EPA 200.7 Rev. 4.4
	EPA 200.8 Rev. 5.4	Chloride	EPA 300.0 Rev. 2.1
Zinc, Total	EPA 200.7 Rev. 4.4	Fluoride, Total	EPA 300.0 Rev. 2.1
	EPA 6010C	Hardness, Total	EPA 200.7 Rev. 4.4
		Sulfate (as SO ₄)	EPA 300.0 Rev. 2.1
Metals III		Miscellaneous	
Cobalt, Total	EPA 200.7 Rev. 4.4	Boron, Total	EPA 6020A
	EPA 6010C		EPA 200.8 Rev. 5.4
	EPA 6020A	Bromide	EPA 300.0 Rev. 2.1
	EPA 200.8 Rev. 5.4	Color	SM 2120B-01,-11
Molybdenum, Total	EPA 6020A	Cyanide, Total	SM 4500-CN E-99,-11
	EPA 200.8 Rev. 5.4	Oil and Grease Total Recoverable (HEM)	EPA 1664A
Thallium, Total	EPA 200.7 Rev. 4.4	Organic Carbon, Total	SM 5310C-00,-11
	EPA 6010C	Phenols	EPA 420.1 Rev. 1978
	EPA 6020A	Specific Conductance	EPA 120.1 Rev. 1982
	EPA 200.8 Rev. 5.4	Sulfide (as S)	SM 4500-S2- F-00,-11
Tin, Total	EPA 6020A	Surfactant (MBAS)	SM 5540C-00,-11
	EPA 200.8 Rev. 5.4	Turbidity	EPA 180.1 Rev. 2.0
Titanium, Total	EPA 6020A	Nitroaromatics and Isophorone	
		2,4-Dinitrotoluene	EPA 625
			EPA 8270D

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Nitroaromatics and Isophorone

2,6-Dinitrotoluene	EPA 625 EPA 8270D
Isophorone	EPA 625 EPA 8270D
Nitrobenzene	EPA 625 EPA 8270D

Nitrosoamines

N-Nitrosodimethylamine	EPA 625 EPA 8270D
N-Nitrosodi-n-propylamine	EPA 625 EPA 8270D
N-Nitrosodiphenylamine	EPA 625 EPA 8270D

Nutrient

Ammonia (as N)	SM 4500-NH3 D or E-97,-11
Kjeldahl Nitrogen, Total	SM 4500-N Org D-97,-11 SM 4500-NH3 D or E-97,-11
Nitrate (as N)	EPA 300.0 Rev. 2.1
Nitrate-Nitrite (as N)	EPA 300.0 Rev. 2.1
Nitrite (as N)	EPA 300.0 Rev. 2.1
Orthophosphate (as P)	EPA 300.0 Rev. 2.1
Phosphorus, Total	SM 4500-P E-99,-11

Organophosphate Pesticides

Atrazine	EPA 8270D
Parathion ethyl	EPA 8270D

Petroleum Hydrocarbons

Diesel Range Organics	EPA 8015D
Gasoline Range Organics	EPA 8015D

Phthalate Esters

Benzyl butyl phthalate	EPA 625 EPA 8270D
Bis(2-ethylhexyl) phthalate	EPA 625 EPA 8270D
Diethyl phthalate	EPA 625 EPA 8270D
Dimethyl phthalate	EPA 625 EPA 8270D
Di-n-butyl phthalate	EPA 625 EPA 8270D
Di-n-octyl phthalate	EPA 625 EPA 8270D

Polychlorinated Biphenyls

PCB-1016	EPA 8082A EPA 608 EPA 8082A EPA 608 EPA 8082A
PCB-1221	
PCB-1232	

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Polychlorinated Biphenyls

PCB-1232	EPA 608
PCB-1242	EPA 8082A
	EPA 608
PCB-1248	EPA 8082A
	EPA 608
PCB-1254	EPA 8082A
	EPA 608
PCB-1260	EPA 8082A
	EPA 608
PCB-1262	EPA 8082A
PCB-1268	EPA 8082A

Polynuclear Aromatics

Acenaphthene	EPA 625
	EPA 8270D
Acenaphthylene	EPA 625
	EPA 8270D
Anthracene	EPA 625
	EPA 8270D
Benzo(a)anthracene	EPA 625
	EPA 8270D
Benzo(a)pyrene	EPA 625
	EPA 8270D
Benzo(b)fluoranthene	EPA 625
	EPA 8270D
Benzo(ghi)perylene	EPA 625

Polynuclear Aromatics

Benzo(ghi)perylene	EPA 8270D
Benzo(k)fluoranthene	EPA 625
	EPA 8270D
Chrysene	EPA 625
	EPA 8270D
Dibenzo(a,h)anthracene	EPA 625
	EPA 8270D
Fluoranthene	EPA 625
	EPA 8270D
Fluorene	EPA 625
	EPA 8270D
Indeno(1,2,3-cd)pyrene	EPA 625
	EPA 8270D
Naphthalene	EPA 625
	EPA 8270D
Phenanthrene	EPA 625
	EPA 8270D
Pyrene	EPA 625
	EPA 8270D

Priority Pollutant Phenols

2,3,4,6-Tetrachlorophenol	EPA 8270D
2,4,5-Trichlorophenol	EPA 625
	EPA 8270D
2,4,6-Trichlorophenol	EPA 625
	EPA 8270D

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Priority Pollutant Phenols

2,4-Dichlorophenol	EPA 625
	EPA 8270D
2,4-Dimethylphenol	EPA 625
	EPA 8270D
2,4-Dinitrophenol	EPA 625
	EPA 8270D
2-Chlorophenol	EPA 625
	EPA 8270D
2-Methyl-4,6-dinitrophenol	EPA 625
	EPA 8270D
2-Methylphenol	EPA 625
	EPA 8270D
2-Nitrophenol	EPA 625
	EPA 8270D
4-Chloro-3-methylphenol	EPA 625
	EPA 8270D
4-Methylphenol	EPA 625
	EPA 8270D
4-Nitrophenol	EPA 625
	EPA 8270D
Cresols, Total	EPA 8270D
Pentachlorophenol	EPA 625
	EPA 8270D
Phenol	EPA 625
	EPA 8270D

Residue

Settleable Solids	SM 2540 F-97,-11
Solids, Total	SM 2540 B-97,-11
Solids, Total Dissolved	SM 2540 C-97,-11
Solids, Total Suspended	SM 2540 D-97,-11

Semi-Volatile Organics

1,1'-Biphenyl	EPA 8270D
1,2-Dichlorobenzene, Semi-volatile	EPA 8270D
1,3-Dichlorobenzene, Semi-volatile	EPA 8270D
1,4-Dichlorobenzene, Semi-volatile	EPA 8270D
2-Methylnaphthalene	EPA 8270D
Acetophenone	EPA 8270D
alpha-Terpineol	EPA 625
Benzaldehyde	EPA 8270D
Benzoic Acid	EPA 8270D
Benzyl alcohol	EPA 8270D
Caprolactam	EPA 8270D
Dibenzofuran	EPA 8270D

Volatile Aromatics

1,2,4-Trichlorobenzene, Volatile	EPA 8260C
1,2,4-Trimethylbenzene	EPA 8260C
1,2-Dichlorobenzene	EPA 8260C
	EPA 624
1,3,5-Trimethylbenzene	EPA 8260C
1,3-Dichlorobenzene	EPA 8260C
	EPA 624

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Volatile Aromatics

1,4-Dichlorobenzene	EPA 8260C EPA 624
2-Chlorotoluene	EPA 8260C
4-Chlorotoluene	EPA 8260C
Benzene	EPA 8260C EPA 624
Bromobenzene	EPA 8260C
Chlorobenzene	EPA 8260C EPA 624
Ethyl benzene	EPA 8260C EPA 624
Isopropylbenzene	EPA 8260C
m/p-Xylenes	EPA 8260C EPA 624
Naphthalene, Volatile	EPA 8260C
n-Butylbenzene	EPA 8260C
n-Propylbenzene	EPA 8260C
o-Xylene	EPA 8260C EPA 624
p-Isopropyltoluene (P-Cymene)	EPA 8260C
sec-Butylbenzene	EPA 8260C
Styrene	EPA 8260C EPA 624
tert-Butylbenzene	EPA 8260C
Toluene	EPA 8260C EPA 624

Volatile Aromatics

Total Xylenes	EPA 8260C EPA 624
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Volatile Halocarbons

1,1,1,2-Tetrachloroethane	EPA 8260C
1,1,1-Trichloroethane	EPA 8260C EPA 624
1,1,2,2-Tetrachloroethane	EPA 8260C EPA 624
1,1,2-Trichloro-1,2,2-Trifluoroethane	EPA 8260C
1,1,2-Trichloroethane	EPA 8260C EPA 624
1,1-Dichloroethane	EPA 8260C EPA 624
1,1-Dichloroethene	EPA 8260C EPA 624
1,1-Dichloropropene	EPA 8260C
1,2,3-Trichloropropane	EPA 8260C
1,2-Dibromo-3-chloropropane	EPA 8260C
1,2-Dibromoethane	EPA 8260C
1,2-Dichloroethane	EPA 8260C EPA 624
1,2-Dichloropropane	EPA 8260C EPA 624
1,3-Dichloropropane	EPA 8260C
2,2-Dichloropropane	EPA 8260C

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Volatile Halocarbons

2-Chloroethylvinyl ether	EPA 8260C
	EPA 624
Bromochloromethane	EPA 8260C
Bromodichloromethane	EPA 8260C
	EPA 624
Bromoform	EPA 8260C
	EPA 624
Bromomethane	EPA 8260C
	EPA 624
Carbon tetrachloride	EPA 8260C
	EPA 624
Chloroethane	EPA 8260C
	EPA 624
Chloroform	EPA 8260C
	EPA 624
Chloromethane	EPA 8260C
	EPA 624
cis-1,2-Dichloroethene	EPA 8260C
	EPA 624
cis-1,3-Dichloropropene	EPA 8260C
	EPA 624
Dibromochloromethane	EPA 8260C
	EPA 624
Dibromomethane	EPA 8260C
Dichlorodifluoromethane	EPA 8260C
	EPA 624

Volatile Halocarbons

Hexachlorobutadiene, Volatile	EPA 8260C
Methylene chloride	EPA 8260C
	EPA 624
Tetrachloroethene	EPA 8260C
	EPA 624
trans-1,2-Dichloroethene	EPA 8260C
	EPA 624
trans-1,3-Dichloropropene	EPA 8260C
	EPA 624
trans-1,4-Dichloro-2-butene	EPA 8260C
Trichloroethene	EPA 8260C
	EPA 624
Trichlorofluoromethane	EPA 8260C
	EPA 624
Vinyl chloride	EPA 8260C
	EPA 624

Volatiles Organics

1,4-Dioxane	EPA 8260C
2-Butanone (Methylethyl ketone)	EPA 8260C
2-Hexanone	EPA 8260C
4-Methyl-2-Pentanone	EPA 8260C
Acetone	EPA 8260C
Carbon Disulfide	EPA 8260C
Cyclohexane	EPA 8260C
Methyl acetate	EPA 8260C

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Volatiles Organics

Methyl cyclohexane	EPA 8260C
Vinyl acetate	EPA 8260C

Sample Preparation Methods

SM 4500-P B(5)-99,-11
EPA 5030C
SM 4500-CN B or C-99,-11
EPA 3015A
EPA 3010A
EPA 3005A
EPA 3510C
SM 4500-N Org B or C-97,-11

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