October 12, 2018 Service Request No:R1809020

Ms. Alene Onion
New York State DEC
625 Broadway
Albany, NY 12233-3502

**Laboratory Results for: LCI 2018**

Dear Ms.Onion,

Enclosed are the results of the sample(s) submitted to our laboratory September 19, 2018
For your reference, these analyses have been assigned our service request number **R1809020.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Janice Jaeger
Project Manager

CC: Jason Fagel

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

# Narrative Documents

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Environmental

**Client:** New York State DEC
**Project:** LCI 2018
**Sample Matrix:** Water

**Service Request:** R1809020
**Date Received:** 09/19/2018

## CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV, validation deliverables including all summary forms and associated raw data. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

**Sample Receipt:**

Twenty six water samples were received for analysis at ALS Environmental on 09/19/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

**General Chemistry:**

Method 353.2, R1809020-005: Sample(s) required dilution due to the foaming nature of the matrix. The reporting limits are adjusted to reflect the dilution.

Approved by _____ Date 10/12/2018

## SAMPLE DETECTION SUMMARY

| CLIENT ID: 18BLK301 | | | Lab ID: R1809020-001 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Alkalinity, Total as CaCO3 | 16.0 | | 1.0 | 2.0 | mg/L | SM 2320 B-1997 (2011) |
| Carbon, Total Organic (TOC) | 4.7 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Chlorophyll A | 0.817 | | | 0.040 | ug/L | SM20 10200 H |
| Color, True | 12.0 | | | 1.0 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrogen, Total Kjeldahl (TKN) | 0.52 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 7.28 | | | | pH Units | SM 2120 B-2001 (2011) |

| CLIENT ID: 18BLK302 | | | Lab ID: R1809020-003 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Ammonia as Nitrogen, undistilled | 0.135 | | 0.0008 | 0.0050 | mg/L | ASTM D6919-09 |
| Carbon, Total Organic (TOC) | 4.1 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Color, True | 23.0 | | | 1.0 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrogen, Total Kjeldahl (TKN) | 0.54 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 7.01 | | | | pH Units | SM 2120 B-2001 (2011) |
| Phosphorus, Total | 0.0133 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK303 | | | Lab ID: R1809020-005 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Alkalinity, Total as CaCO3 | 15.2 | | 1.0 | 2.0 | mg/L | SM 2320 B-1997 (2011) |
| Carbon, Total Organic (TOC) | 4.2 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Chlorophyll A | 0.770 | | | 0.040 | ug/L | SM20 10200 H |
| Color, True | 16.0 | | | 1.0 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrogen, Total Kjeldahl (TKN) | 0.42 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 7.19 | | | | pH Units | SM 2120 B-2001 (2011) |

| CLIENT ID: 18BLK304 | | | Lab ID: R1809020-007 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Ammonia as Nitrogen, undistilled | 0.0283 | | 0.0008 | 0.0050 | mg/L | ASTM D6919-09 |
| Carbon, Total Organic (TOC) | 4.2 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Color, True | 48.0 | | | 1.0 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrate+Nitrite as Nitrogen | 0.165 | | 0.0007 | 0.0020 | mg/L | 353.2 |
| Nitrogen, Total Kjeldahl (TKN) | 0.27 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 6.78 | | | | pH Units | SM 2120 B-2001 (2011) |
| Phosphorus, Total | 0.0237 | | 0.0020 | 0.0050 | mg/L | 365.1 |

## SAMPLE DETECTION SUMMARY

| CLIENT ID: 18BLK304 Diss | | | Lab ID: R1809020-008 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Phosphorus, Dissolved | 0.0068 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK307 | | | Lab ID: R1809020-009 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Alkalinity, Total as CaCO3 | 5.6 | | 1.0 | 2.0 | mg/L | SM 2320 B-1997 (2011) |
| Carbon, Total Organic (TOC) | 6.0 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Chlorophyll A | 1.28 | | | 0.053 | ug/L | SM20 10200 H |
| Color, True | 38.0 | | | 1.0 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrogen, Total Kjeldahl (TKN) | 0.50 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 6.61 | | | | pH Units | SM 2120 B-2001 (2011) |
| Phosphorus, Total | 0.0062 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK308 | | | Lab ID: R1809020-011 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Ammonia as Nitrogen, undistilled | 0.490 | | 0.0008 | 0.0050 | mg/L | ASTM D6919-09 |
| Carbon, Total Organic (TOC) | 9.9 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Color, True | 320 | | | 10 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrate+Nitrite as Nitrogen | 0.0093 | | 0.0007 | 0.0020 | mg/L | 353.2 |
| Nitrogen, Total Kjeldahl (TKN) | 0.97 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 6.67 | | | | pH Units | SM 2120 B-2001 (2011) |
| Phosphorus, Total | 0.0189 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK308 Diss | | | Lab ID: R1809020-012 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Phosphorus, Dissolved | 0.0060 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK313 | | | Lab ID: R1809020-013 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Carbon, Total Organic (TOC) | 3.4 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Chlorophyll A | 0.995 | | | 0.040 | ug/L | SM20 10200 H |
| Color, True | 17.0 | | | 1.0 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrate+Nitrite as Nitrogen | 0.0146 | | 0.0007 | 0.0020 | mg/L | 353.2 |
| Nitrogen, Total Kjeldahl (TKN) | 0.36 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 6.48 | | | | pH Units | SM 2120 B-2001 (2011) |

| CLIENT ID: 18BLK314 | | | Lab ID: R1809020-015 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Ammonia as Nitrogen, undistilled | 0.160 | | 0.0008 | 0.0050 | mg/L | ASTM D6919-09 |

## SAMPLE DETECTION SUMMARY

| CLIENT ID: 18BLK314 | | | Lab ID: R1809020-015 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Carbon, Total Organic (TOC) | 3.6 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Color, True | 47.0 | | | 1.0 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrate+Nitrite as Nitrogen | 0.0914 | | 0.0007 | 0.0020 | mg/L | 353.2 |
| Nitrogen, Total Kjeldahl (TKN) | 0.46 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 6.24 | | | | pH Units | SM 2120 B-2001 (2011) |
| Phosphorus, Total | 0.0078 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK305 | | | Lab ID: R1809020-017 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Alkalinity, Total as CaCO3 | 4.0 | | 1.0 | 2.0 | mg/L | SM 2320 B-1997 (2011) |
| Ammonia as Nitrogen, undistilled | 0.0056 | | 0.0008 | 0.0050 | mg/L | ASTM D6919-09 |
| Carbon, Total Organic (TOC) | 7.3 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Chlorophyll A | 4.60 | | | 0.32 | ug/L | SM20 10200 H |
| Color, True | 52.0 | | | 1.0 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrogen, Total Kjeldahl (TKN) | 0.61 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 6.69 | | | | pH Units | SM 2120 B-2001 (2011) |
| Phosphorus, Total | 0.0072 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK306 | | | Lab ID: R1809020-019 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Ammonia as Nitrogen, undistilled | 0.296 | | 0.0008 | 0.0050 | mg/L | ASTM D6919-09 |
| Carbon, Total Organic (TOC) | 7.6 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Color, True | 210 | | | 10 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrate+Nitrite as Nitrogen | 0.0080 | | 0.0007 | 0.0020 | mg/L | 353.2 |
| Nitrogen, Total Kjeldahl (TKN) | 0.73 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 6.54 | | | | pH Units | SM 2120 B-2001 (2011) |
| Phosphorus, Total | 0.0165 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK306 Diss | | | Lab ID: R1809020-020 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Phosphorus, Dissolved | 0.0064 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK311 | | | Lab ID: R1809020-021 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Alkalinity, Total as CaCO3 | 18.4 | | 1.0 | 2.0 | mg/L | SM 2320 B-1997 (2011) |
| Ammonia as Nitrogen, undistilled | 0.0078 | | 0.0008 | 0.0050 | mg/L | ASTM D6919-09 |
| Carbon, Total Organic (TOC) | 15.8 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |

## SAMPLE DETECTION SUMMARY

| CLIENT ID: 18BLK311 | | | Lab ID: R1809020-021 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Chlorophyll A | 3.80 | | | 0.16 | ug/L | SM20 10200 H |
| Color, True | 160 | | | 10 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrogen, Total Kjeldahl (TKN) | 0.90 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 7.04 | | | | pH Units | SM 2120 B-2001 (2011) |
| Phosphorus, Total | 0.0232 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK311 Diss | | | Lab ID: R1809020-022 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Phosphorus, Dissolved | 0.0098 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK399 | | | Lab ID: R1809020-023 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Ammonia as Nitrogen, undistilled | 0.159 | | 0.0008 | 0.0050 | mg/L | ASTM D6919-09 |
| Carbon, Total Organic (TOC) | 3.6 | | 0.05 | 1.0 | mg/L | SM 5310 C-2000 (2011) |
| Color, True | 44.0 | | | 1.0 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrate+Nitrite as Nitrogen | 0.0913 | | 0.0007 | 0.0020 | mg/L | 353.2 |
| Nitrogen, Total Kjeldahl (TKN) | 0.40 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 6.29 | | | | pH Units | SM 2120 B-2001 (2011) |
| Phosphorus, Total | 0.0083 | | 0.0020 | 0.0050 | mg/L | 365.1 |

| CLIENT ID: 18BLK398 | | | Lab ID: R1809020-025 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Color, True | 8.0 | | | 1.0 | ColorUnits | SM 2120 B-2001 (2011) |
| Nitrogen, Total Kjeldahl (TKN) | 0.19 | | 0.08 | 0.10 | mg/L | 351.2 |
| pH of Color Analysis | 6.58 | | | | pH Units | SM 2120 B-2001 (2011) |

# Sample Receipt Information

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| R1809020-001 | 18BLK301 | 9/17/2018 | 1040 |
| R1809020-002 | 18BLK301 Diss | 9/17/2018 | 1040 |
| R1809020-003 | 18BLK302 | 9/17/2018 | 1050 |
| R1809020-004 | 18BLK302 Diss | 9/17/2018 | 1050 |
| R1809020-005 | 18BLK303 | 9/17/2018 | 1235 |
| R1809020-006 | 18BLK303 Diss | 9/17/2018 | 1235 |
| R1809020-007 | 18BLK304 | 9/17/2018 | 1245 |
| R1809020-008 | 18BLK304 Diss | 9/17/2018 | 1245 |
| R1809020-009 | 18BLK307 | 9/17/2018 | 1510 |
| R1809020-010 | 18BLK307 Diss | 9/17/2018 | 1510 |
| R1809020-011 | 18BLK308 | 9/17/2018 | 1515 |
| R1809020-012 | 18BLK308 Diss | 9/17/2018 | 1515 |
| R1809020-013 | 18BLK313 | 9/18/2018 | 0815 |
| R1809020-014 | 18BLK313 Diss | 9/18/2018 | 0815 |
| R1809020-015 | 18BLK314 | 9/18/2018 | 0825 |
| R1809020-016 | 18BLK314 Diss | 9/18/2018 | 0825 |
| R1809020-017 | 18BLK305 | 9/18/2018 | 1008 |
| R1809020-018 | 18BLK305 Diss | 9/18/2018 | 1008 |
| R1809020-019 | 18BLK306 | 9/18/2018 | 1015 |
| R1809020-020 | 18BLK306 Diss | 9/18/2018 | 1015 |
| R1809020-021 | 18BLK311 | 9/18/2018 | 1153 |
| R1809020-022 | 18BLK311 Diss | 9/18/2018 | 1153 |
| R1809020-023 | 18BLK399 | 9/18/2018 | 0825 |
| R1809020-024 | 18BLK399 Diss | 9/18/2018 | 0825 |
| R1809020-025 | 18BLK398 | 9/18/2018 | 1153 |
| R1809020-026 | 18BLK398 Diss | 9/18/2018 | 1153 |

# CHAIN OF CUSTODY



New York State Department of Environmental Conservation – Division of Water

| | | |
|---|---|---|
| **Project Name:** LCI | **Project Number:** LCI2018 | **NYSDEC SDG:** |
| **Sampler Collector:** Sara Gonzalez | **Sampler Signature:** Sara M. Gonzalez | **Sampler Phone No.:** 845-216-9575 |
| **Project Manager:** Alene Onion | **X Report to Project Manager** **Report to:** | ☐ **Bill to Project Manager** **Bill to:** Jason Fagel |
| **Address:** 625 Broadway, 4th Floor Albany, NY 12233-3502 | **Address:** | **Address:** 625 Broadway, 4th Floor Albany, NY 12233-3502 |
| **Phone:** (518) 402-8166 | **Phone:** | **Phone:** 518-402-8156 |
| **Email:** alene.onion@dec.ny.gov | **Email:** | **Email:** Jason.fagel@dec.ny.gov |

**Matrix Codes:**
**WW** = Wastewater
**GW** = Groundwater
**AW** = Ambient Water
**SE** = Sediment
**SL** = Sludge
**T** = Tissue
**O** = Other _____

**Preservative Codes:**
0 = Cool to < 6°C
1 = HCL
2 = $HNO_3$
3 = $H_2SO_4$
4 = NaOH
5 = Zn. Acetate
6 = MeOH
7 = NaHSO4
8 = Other_____

**Analyses Ordered (list)**

| NYSDEC LCI Sample ID | Collection Date | Collection Time | Matrix Code | No. of Containers | 3 TP, NH4, NOx, TKN | TP, NH4, NOx, TKN, NO3 12 | Dissolved TOP4 | 2 Fe, Mn, As, | Ca, Mg, Na, K | Fe, Mn, As, Ca, Mg, Na, K | 0 Color | 3 TOC | DOC ANC | 0 Alkalinity | SO4 & UV-254 | SO4, Cl 3.3 | SO4, Cl, UV-254 | 0 Chlorophyll a \| Vol (ml) | | Location Info |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18BLK301 | 09/17 | 10:40 | AW | 6 | X | | X | | | | X | X | | X | | | | X | 1000 | Bug L, epi |
| 18BLK302 | 09/17 | 10:50 | AW | 4 | X | | X | | | | X | X | | | | | | | | Bug L, hypo |
| 18BLK303 | 09/17 | 12:35 | AW | 6 | X | | X | | | | X | X | | X | | | | X | 1000 | Eighth L, epi |
| 18BLK304 | 09/17 | 12:45 | AW | 4 | X | | X | | | | X | X | | | | | | | | E. Eighth L, hypo |
| 18BLK307 | 09/17 | 15:10 | AW | 6 | X | | X | | | | X | X | | X | | | | X | 750 | L. Brown epi |
| 18BLK308 | 09/17 | 15:15 | AW | 4 | X | | X | | | | X | X | | | | | | | | L. Brown hypo |
| 18BLK313 | 09/18 | 8:15 | AW | 6 | X | | X | | | | X | X | | X | | | | X | 1000 | Woodhull L, epi |
| 18BLK314 | 09/18 | 8:25 | AW | 4 | X | | X | | | | X | X | | | | | | | | Woodhull L, hypo |
| 18BLK305 | 09/18 | 10:08 | AW | 6 | X | | X | | | | X | X | | X | | | | X | 500 | Long L, epi |
| 18BLK306 | 09/18 | 10:15 | AW | 4 | X | | X | | | | X | X | | | | | | | | Long L, hypo |

**Special Analysis Instructions:**

| Relinquished by Sampler: | Date: | Time: | Received by: | Date: | Time: |
|---|---|---|---|---|---|
| Sara Gonzalez | 09/18 | 15:00 | Brian McGlinch | 09/18/18 | 1500 |
| **Relinquished by:** Brian McGlinch | 9/19/18 | 500 | **Received by:** | **Date:** | **Time:** |
| **Relinquished by:** | **Date:** | **Time:** | **Received by Laboratory:** | **Date:** 9/19/18 | **Time:** 1400 |

**Laboratory Receipt Notes:**

Sample Temp
Properly Pr
Samples In

R1809020 5
New York State DEC
LCI 2018

split between 2 coolers

# CHAIN OF CUSTODY



New York State Department of Environmental Conservation – Division of Water

| | | |
|---|---|---|
| **Project Name:** LCI | **Project Number:** LCI2018 | **NYSDEC SDG:** |
| **Sampler Collector:** Sara Gonzalez | **Sampler Signature:** Sara M. Gonzalez | **Sampler Phone No.:** 845-216-9575 |
| **Project Manager:** Alene Onion | **X Report to Project Manager** **Report to:** | **☐ Bill to Project Manager** **Bill to:** Jason Fagel |
| **Address:** 625 Broadway, 4th Floor Albany, NY 12233-3502 | **Address:** | **Address:** 625 Broadway, 4th Floor Albany, NY 12233-3502 |
| **Phone:** (518) 402-8166 | **Phone:** | **Phone:** 518-402-8156 |
| **Email:** alene.onion@dec.ny.gov | **Email:** | **Email:** Jason.fagel@dec.ny.gov |

**Matrix Codes:**
**WW** = Wastewater
**GW** = Groundwater
**AW** = Ambient Water
**SE** = Sediment
**SL** = Sludge
**T** = Tissue
**O** = Other _____

**Preservative Codes:**
0 = Cool to < 6°C
1 = HCL
2 = $HNO_3$
3 = $H_2SO_4$
4 = NaOH
5 = Zn. Acetate
6 = MeOH
7 = NaHSO4
8 = Other_____

**Analyses Ordered (list)**

| NYSDEC LCI Sample ID | Collection Date | Collection Time | Matrix Code | No. of Containers | 3 TP, NH4, NOx, TKN | 3 TP, NH4, NOx, TKN, NO3 | Dissolved TOP4 | 2 Fe, Mn, As, ASC | Ca, Mg, Na, K | Fe, Mn, As, Ca, Mg, Na, K | 0 Color | 3 TOC | DOC ASC | 0 Alkalinity | SO4 & UV-254 | SO4, Cl ASC | SO4, Cl, UV-254 | 0 Chlorophyll a Vol (ml) | | Location Info |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18BLK311 | 09/18 | 11:55 | AW | 6 | X | | X | | | | X | X | | X | | | | X | 250 | Wheatstone Gulf |
| 18BLK399 | 09/18 | 8:25 | AW | 4 | X | X | | | | | X | X | | | | | | | | Weathull Hypocrite |
| 18BLK398 | 09/18 | 11:53 | AW | 5 | X | X | | | | | X | [redacted] | | X | | | | X | 250 | blank |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

**Special Analysis Instructions:** *18BLK398 Nutrients and dissolved TPO4 are not acidified *18BLK311 dissolved TPO4

| Relinquished by Sampler: | Date: | Time: | Received by: | Date: | Time: |
|---|---|---|---|---|---|
| Sara Gonzalez | 09/18 | 15:00 | Brianna Gillespie | 9/18/18 | 1500 |
| Relinquished by: Brianna McGuire | Date: 9/19/18 | Time: 5 PM | Received by: | Date: | Time: |
| Relinquished by: | Date: | Time: | Received by Laboratory: AES | Date: 9/19/18 | Time: 1700 |

**Laboratory Receipt Notes:** is not acidified

Sample Properly Sampled: R1809020 5
New York State DEC LCI 2018

# Cooler Receipt and Preservation Check Form

Project/Client_____ Folder Number_____.

Cooler received on 9/19/18 by: dw

COURIER: ALS UPS FEDEX VELOCITY CLIENT

| | | | | | |
|---|---|---|---|---|---|
| 1 | Were **Custody seals** on outside of cooler? | Y (N) | 5a | **Perchlorate** samples have required headspace? | Y N (NA) |
| 2 | **Custody papers** properly completed (ink, signed)? | (Y) N | 5b | Did VOA vials, Alk,or Sulfide have sig* **bubbles**? | Y (N) NA |
| 3 | Did all bottles arrive in good **condition** (unbroken)? | (Y) N | 6 | Where did the bottles originate? | ALS/ROC CLIENT |
| 4 | Circle: ~~Wet Ice~~ **Dry Ice Gel packs** present? | (Y) N | 7 | Soil VOA received as: | Bulk Encore 5035set (NA) |

8. Temperature Readings Date: 9/19/18 Time: 1725 ID: IR#7 (IR#10) From: Temp Blank (Sample Bottle)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Observed Temp (°C) | 4.6c | 5.2c | 0.9c | 1.3c | | | |
| Correction Factor (°C) | +1.0 | ±0.0 | ±0.0 | ±0.0 | | | |
| Corrected Temp (°C) | 5.6 | 5.2 | 0.9 | 1.3 | | | |
| Temp from:Type of bottle | 1L Amber | | | | | | |
| Within 0-6°C? | (Y) N | (Y) N | (Y) N | (Y) N | Y N | Y N | Y N |
| If <0°C, were samples frozen? | Y N | Y N | Y N | Y N | Y N | Y N | Y N |

**If out of Temperature, note packing/ice condition:** _____Ice melted Poorly Packed (described below) Same Day Rule

**&Client Approval to Run Samples:**_____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by dw on 9/19/18 at 1725
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 9/20/18 Time: 1255 by: @

| | | | |
|---|---|---|---|
| 9. | Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? | (YES) | NO |
| 10. | Did all bottle labels and tags agree with custody papers? | (YES) | NO |
| 11. | Were correct containers used for the tests indicated? | (YES) | NO |
| 12. | Were 5035 vials acceptable (no extra labels, not leaking)? | YES | NO (N/A) |
| 13. | Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized | Tedlar® Bags Inflated | (N/A) |

| pH | Lot of test paper | Reagent | Preserved? Yes | Preserved? No | Lot Received | Exp | Sample ID Adjusted | Vol. Added | Lot Added | Final pH |
|---|---|---|---|---|---|---|---|---|---|---|
| ≥12 | | NaOH | | | | | | | | |
| ≤2 | | $HNO_3$ | | | | | | | | |
| ≤2 | 209318 | $H_2SO_4$ | ✓ | ✓ | 2HB0071, 192169 | 9/19 | 25,26,21 | 0.5ml | 192169 | ≤2 |
| <4 | | $NaHSO_4$ | | | | | | | | |
| 5-9 | | For 608pest | | | No=Notify for 3day | | | | | |
| Residual Chlorine (-) | | For CN, Phenol, 625, 608pest, 522 | | | If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol). | | | | | |
| | | $Na_2S_2O_3$ | | | | | | | | |
| | | ZnAcetate | - | - | | | **VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives). | | | |
| | | HCl | ** | ** | | | | | | |

Bottle lot numbers: 8-072-001, 070218-2AHA

Explain all Discrepancies/ Other Comments:

| | |
|---|---|
| CLRES | BULK |
| DO | FLDT |
| HPROD | HGFB |
| (HTR) | LL3541 |
| PH | SUB |
| SO3 | MARRS |
| ALS | REV |

Labels secondary reviewed by: _____

PC Secondary Review: _____ 9/21/18

significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

# Miscellaneous Forms

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

# REPORT QUALIFIERS AND DEFINITIONS

| | |
|---|---|
| U | Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative. |
| J | Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors). |
| B | Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result. |
| E | Inorganics- Concentration is estimated due to the serial dilution was outside control limits. |
| E | Organics- Concentration has exceeded the calibration range for that specific analysis. |
| D | Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed. |
| * | Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time. |
| H | Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria. |
| # | Spike was diluted out. |
| + | Correlation coefficient for MSA is <0.995. |
| N | Inorganics- Matrix spike recovery was outside laboratory limits. |
| N | Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search. |
| S | Concentration has been determined using Method of Standard Additions (MSA). |
| W | Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance. |
| P | Concentration >40% difference between the two GC columns. |
| C | Confirmed by GC/MS |
| Q | DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns). |
| X | See Case Narrative for discussion. |
| MRL<br>LOQ | Method Reporting Limit. Also known as:<br>Limit of Quantitation (LOQ)<br>The lowest concentration at which the method analyte may be reliably quantified under the method conditions. |
| MDL | Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier). |
| LOD | Limit of Detection. A value at or above the MDL which has been verified to be detectable. |
| ND | Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier. |

## Rochester Lab ID # for State Certifications[1]

| | | |
|---|---|---|
| Connecticut ID # PH0556 | Maine ID #NY0032 | Pennsylvania ID# 68-786 |
| Delaware Approved | New Hampshire ID # 2941 | Rhode Island ID # 158 |
| DoD ELAP #65817 | New York ID # 10145 | Virginia #460167 |
| Florida ID # E87674 | North Carolina #676 | |

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

# ALS Laboratory Group

**Acronyms**

| | |
|---|---|
| ASTM | American Society for Testing and Materials |
| A2LA | American Association for Laboratory Accreditation |
| CARB | California Air Resources Board |
| CAS Number | Chemical Abstract Service registry Number |
| CFC | Chlorofluorocarbon |
| CFU | Colony-Forming Unit |
| DEC | Department of Environmental Conservation |
| DEQ | Department of Environmental Quality |
| DHS | Department of Health Services |
| DOE | Department of Ecology |
| DOH | Department of Health |
| EPA | U. S. Environmental Protection Agency |
| ELAP | Environmental Laboratory Accreditation Program |
| GC | Gas Chromatography |
| GC/MS | Gas Chromatography/Mass Spectrometry |
| LUFT | Leaking Underground Fuel Tank |
| M | Modified |
| MCL | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL | Method Detection Limit |
| MPN | Most Probable Number |
| MRL | Method Reporting Limit |
| NA | Not Applicable |
| NC | Not Calculated |
| NCASI | National Council of the Paper Industry for Air and Stream Improvement |
| ND | Not Detected |
| NIOSH | National Institute for Occupational Safety and Health |
| PQL | Practical Quantitation Limit |
| RCRA | Resource Conservation and Recovery Act |
| SIM | Selected Ion Monitoring |
| TPH | Total Petroleum Hydrocarbons |
| tr | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL. |

**Client:** New York State DEC **Service Request:** R1809020
**Project:** LCI 2018/LCI2018

## Non-Certified Analytes

**Certifying Agency:** New York Department of Health

| Method | Matrix | Analyte |
|---|---|---|
| SM20 10200 H | Water | Chlorophyll A |

**Client:** New York State DEC **Service Request:** R1809020
**Project:** LCI 2018/LCI2018

**Sample Name:** 18BLK301 **Date Collected:** 09/17/18
**Lab Code:** R1809020-001 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 2320 B-1997(2011) | | CWOODS |
| SM 5310 C-2000(2011) | | CWOODS |
| SM20 10200 H | | JQUACKENBUSH |

**Sample Name:** 18BLK301 Diss **Date Collected:** 09/17/18
**Lab Code:** R1809020-002 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Sample Name:** 18BLK302 **Date Collected:** 09/17/18
**Lab Code:** R1809020-003 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 5310 C-2000(2011) | | CWOODS |

**Client:** New York State DEC **Service Request:** R1809020
**Project:** LCI 2018/LCI2018

**Sample Name:** 18BLK302 Diss **Date Collected:** 09/17/18
**Lab Code:** R1809020-004 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Sample Name:** 18BLK303 **Date Collected:** 09/17/18
**Lab Code:** R1809020-005 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 2320 B-1997(2011) | | CWOODS |
| SM 5310 C-2000(2011) | | CWOODS |
| SM20 10200 H | | JQUACKENBUSH |

**Sample Name:** 18BLK303 Diss **Date Collected:** 09/17/18
**Lab Code:** R1809020-006 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Sample Name:** 18BLK304 **Date Collected:** 09/17/18
**Lab Code:** R1809020-007 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |

**Client:** New York State DEC **Service Request:** R1809020
**Project:** LCI 2018/LCI2018

**Sample Name:** 18BLK304 **Date Collected:** 09/17/18
**Lab Code:** R1809020-007 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 5310 C-2000(2011) | | CWOODS |

**Sample Name:** 18BLK304 Diss **Date Collected:** 09/17/18
**Lab Code:** R1809020-008 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Sample Name:** 18BLK307 **Date Collected:** 09/17/18
**Lab Code:** R1809020-009 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 2320 B-1997(2011) | | CWOODS |
| SM 5310 C-2000(2011) | | CWOODS |
| SM20 10200 H | | JQUACKENBUSH |

**Sample Name:** 18BLK307 Diss **Date Collected:** 09/17/18
**Lab Code:** R1809020-010 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Client:** New York State DEC **Service Request:** R1809020
**Project:** LCI 2018/LCI2018

**Sample Name:** 18BLK308 **Date Collected:** 09/17/18
**Lab Code:** R1809020-011 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 5310 C-2000(2011) | | CWOODS |

**Sample Name:** 18BLK308 Diss **Date Collected:** 09/17/18
**Lab Code:** R1809020-012 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Sample Name:** 18BLK313 **Date Collected:** 09/18/18
**Lab Code:** R1809020-013 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 2320 B-1997(2011) | | CWOODS |
| SM 5310 C-2000(2011) | | CWOODS |
| SM20 10200 H | | JQUACKENBUSH |

**Client:** New York State DEC **Service Request:** R1809020
**Project:** LCI 2018/LCI2018

**Sample Name:** 18BLK313 Diss **Date Collected:** 09/18/18
**Lab Code:** R1809020-014 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Sample Name:** 18BLK314 **Date Collected:** 09/18/18
**Lab Code:** R1809020-015 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 5310 C-2000(2011) | | CWOODS |

**Sample Name:** 18BLK314 Diss **Date Collected:** 09/18/18
**Lab Code:** R1809020-016 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Sample Name:** 18BLK305 **Date Collected:** 09/18/18
**Lab Code:** R1809020-017 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |

**Client:** New York State DEC **Service Request:** R1809020
**Project:** LCI 2018/LCI2018

**Sample Name:** 18BLK305 **Date Collected:** 09/18/18
**Lab Code:** R1809020-017 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| SM 2320 B-1997(2011) | | CWOODS |
| SM 5310 C-2000(2011) | | CWOODS |
| SM20 10200 H | | JQUACKENBUSH |

**Sample Name:** 18BLK305 Diss **Date Collected:** 09/18/18
**Lab Code:** R1809020-018 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Sample Name:** 18BLK306 **Date Collected:** 09/18/18
**Lab Code:** R1809020-019 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 5310 C-2000(2011) | | CWOODS |

**Sample Name:** 18BLK306 Diss **Date Collected:** 09/18/18
**Lab Code:** R1809020-020 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Client:** New York State DEC **Service Request:** R1809020
**Project:** LCI 2018/LCI2018

**Sample Name:** 18BLK311 **Date Collected:** 09/18/18
**Lab Code:** R1809020-021 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 2320 B-1997(2011) | | CWOODS |
| SM 5310 C-2000(2011) | | CWOODS |
| SM20 10200 H | | JQUACKENBUSH |

**Sample Name:** 18BLK311 Diss **Date Collected:** 09/18/18
**Lab Code:** R1809020-022 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

**Sample Name:** 18BLK399 **Date Collected:** 09/18/18
**Lab Code:** R1809020-023 **Date Received:** 09/19/18
**Sample Matrix:** Water

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 5310 C-2000(2011) | | CWOODS |

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | | |

| | | | |
|---|---|---|---|
| **Sample Name:** | 18BLK399 Diss | **Date Collected:** | 09/18/18 |
| **Lab Code:** | R1809020-024 | **Date Received:** | 09/19/18 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

| | | | |
|---|---|---|---|
| **Sample Name:** | 18BLK398 | **Date Collected:** | 09/18/18 |
| **Lab Code:** | R1809020-025 | **Date Received:** | 09/19/18 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 351.2 | NSMITH | GNITAJOUPPI |
| 353.2 | | MROGERSON |
| 365.1 | KWONG | GNITAJOUPPI |
| ASTM D6919-09 | | CWOODS |
| SM 2120 B-2001(2011) | | SCYMBAL |
| SM 2320 B-1997(2011) | | CWOODS |
| SM20 10200 H | | JQUACKENBUSH |

| | | | |
|---|---|---|---|
| **Sample Name:** | 18BLK398 Diss | **Date Collected:** | 09/18/18 |
| **Lab Code:** | R1809020-026 | **Date Received:** | 09/19/18 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 365.1 | KWONG | GNITAJOUPPI |

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

**Water/Liquid Matrix**

| Analytical Method | Preparation Method |
|---|---|
| 200.7 | 200.2 |
| 200.8 | 200.2 |
| 6010C | 3005A/3010A |
| 6020A | ILM05.3 |
| 9014 Cyanide Reactivity | SW846 Ch7, 7.3.4.2 |
| 9034 Sulfide Reactivity | SW846 Ch7, 7.3.4.2 |
| 9034 Sulfide Acid Soluble | 9030B |
| 9056A Bomb (Halogens) | 5050A |
| 9066 Manual Distillation | 9065 |
| SM 4500-CN-E Residual Cyanide | SM 4500-CN-G |
| SM 4500-CN-E WAD Cyanide | SM 4500-CN-I |

**Solid/Soil/Non-Aqueous Matrix**

| Analytical Method | Preparation Method |
|---|---|
| 6010C | 3050B |
| 6020A | 3050B |
| 6010C TCLP (1311) extract | 3005A/3010A |
| 6010 SPLP (1312) extract | 3005A/3010A |
| 7196A | 3060A |
| 7199 | 3060A |
| 9056A Halogens/Halides | 5050 |
| 300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions | DI extraction |

For analytical methods not listed, the preparation method is the same as the analytical method reference.

# Sample Results

**ALS Environmental—Rochester Laboratory**
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Phone (585) 288-5380 Fax (585) 288-8475
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# General Chemistry

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 10:40 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK301 | **Basis:** | NA |
| **Lab Code:** | R1809020-001 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | SM 2320 B-1997(2011) | **16.0** | | mg/L | 2.0 | 1 | 09/25/18 07:59 | NA | |
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/23/18 12:07 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **4.7** | | mg/L | 1.0 | 1 | 09/21/18 18:31 | NA | |
| Chlorophyll A | SM20 10200 H | **0.817** | | ug/L | 0.040 | 1 | 09/27/18 13:28 | NA | |
| Color, True | SM 2120 B-2001(2011) | **12.0** | | ColorUnits | 1.0 | 1 | 09/20/18 10:00 | NA | * |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.0020 | U | mg/L | 0.0020 | 1 | 09/27/18 16:47 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.52** | | mg/L | 0.10 | 1 | 09/27/18 11:57 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **7.28** | | pH Units | - | 1 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/28/18 18:29 | 09/27/18 | |

Analytical Report

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 10:40 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK301 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-002 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | 0.0050 U | mg/L | 0.0050 | 1 | 09/28/18 16:35 | 09/27/18 | |

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 10:50 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK302 | **Basis:** | NA |
| **Lab Code:** | R1809020-003 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | **0.135** | | mg/L | 0.0050 | 1 | 09/23/18 12:23 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **4.1** | | mg/L | 1.0 | 1 | 09/21/18 18:51 | NA | |
| Color, True | SM 2120 B-2001(2011) | **23.0** | | ColorUnits | 1.0 | 1 | 09/20/18 10:00 | NA | * |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.0020 | U | mg/L | 0.0020 | 1 | 09/27/18 16:49 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.54** | | mg/L | 0.10 | 1 | 09/27/18 11:58 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **7.01** | | pH Units | - | 1 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | **0.0133** | | mg/L | 0.0050 | 1 | 09/28/18 18:32 | 09/27/18 | |

Analytical Report

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 10:50 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK302 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-004 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | 0.0050 U | mg/L | 0.0050 | 1 | 09/28/18 16:36 | 09/27/18 | |

Analytical Report

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 12:35 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK303 | **Basis:** | NA |
| **Lab Code:** | R1809020-005 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | SM 2320 B-1997(2011) | **15.2** | | mg/L | 2.0 | 1 | 09/25/18 08:03 | NA | |
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/23/18 12:39 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **4.2** | | mg/L | 1.0 | 1 | 09/21/18 19:12 | NA | |
| Chlorophyll A | SM20 10200 H | **0.770** | | ug/L | 0.040 | 1 | 09/27/18 13:28 | NA | |
| Color, True | SM 2120 B-2001(2011) | **16.0** | | ColorUnits | 1.0 | 1 | 09/20/18 10:00 | NA | * |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.0020 | U | mg/L | 0.0020 | 1 | 09/27/18 16:50 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.42** | | mg/L | 0.10 | 1 | 09/27/18 11:58 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **7.19** | | pH Units | - | 1 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/28/18 18:33 | 09/27/18 | |

Analytical Report

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 12:35 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK303 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-006 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | 0.0050 U | mg/L | 0.0050 | 1 | 09/28/18 16:37 | 09/27/18 | |

Analytical Report

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 12:45 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK304 | **Basis:** | NA |
| **Lab Code:** | R1809020-007 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | **0.0283** | mg/L | 0.0050 | 1 | 09/23/18 12:55 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **4.2** | mg/L | 1.0 | 1 | 09/21/18 20:36 | NA | |
| Color, True | SM 2120 B-2001(2011) | **48.0** | ColorUnits | 1.0 | 1 | 09/20/18 10:00 | NA | * |
| Nitrate+Nitrite as Nitrogen | 353.2 | **0.165** | mg/L | 0.0020 | 1 | 09/27/18 16:53 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.27** | mg/L | 0.10 | 1 | 09/27/18 11:59 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **6.78** | pH Units | - | 1 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | **0.0237** | mg/L | 0.0050 | 1 | 09/28/18 18:34 | 09/27/18 | |

Analytical Report

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 12:45 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK304 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-008 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | **0.0068** | mg/L | 0.0050 | 1 | 09/28/18 16:40 | 09/27/18 | |

Analytical Report

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 15:10 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK307 | **Basis:** | NA |
| **Lab Code:** | R1809020-009 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | SM 2320 B-1997(2011) | **5.6** | | mg/L | 2.0 | 1 | 09/25/18 08:07 | NA | |
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/23/18 13:11 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **6.0** | | mg/L | 1.0 | 1 | 09/21/18 21:39 | NA | |
| Chlorophyll A | SM20 10200 H | **1.28** | | ug/L | 0.053 | 1 | 09/27/18 13:28 | NA | |
| Color, True | SM 2120 B-2001(2011) | **38.0** | | ColorUnits | 1.0 | 1 | 09/20/18 10:00 | NA | * |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.0020 | U | mg/L | 0.0020 | 1 | 09/27/18 16:57 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.50** | | mg/L | 0.10 | 1 | 09/27/18 12:01 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **6.61** | | pH Units | - | 1 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | **0.0062** | | mg/L | 0.0050 | 1 | 09/28/18 18:36 | 09/27/18 | |

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 15:10 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK307 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-010 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | 0.0050 U | mg/L | 0.0050 | 1 | 09/28/18 16:42 | 09/27/18 | |

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 15:15 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK308 | **Basis:** | NA |
| **Lab Code:** | R1809020-011 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | **0.490** | mg/L | 0.0050 | 1 | 09/23/18 13:27 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **9.9** | mg/L | 1.0 | 1 | 09/21/18 22:00 | NA | |
| Color, True | SM 2120 B-2001(2011) | **320** | ColorUnits | 10 | 10 | 09/20/18 10:00 | NA | * |
| Nitrate+Nitrite as Nitrogen | 353.2 | **0.0093** | mg/L | 0.0020 | 1 | 09/27/18 17:01 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.97** | mg/L | 0.10 | 1 | 09/27/18 12:02 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **6.67** | pH Units | - | 10 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | **0.0189** | mg/L | 0.0050 | 1 | 09/28/18 18:37 | 09/27/18 | |

Analytical Report

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 15:15 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK308 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-012 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | **0.0060** | mg/L | 0.0050 | 1 | 09/28/18 16:43 | 09/27/18 | |

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 08:15 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK313 | **Basis:** | NA |
| **Lab Code:** | R1809020-013 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | SM 2320 B-1997(2011) | 2.0 | U | mg/L | 2.0 | 1 | 09/25/18 08:10 | NA | |
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/23/18 13:43 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **3.4** | | mg/L | 1.0 | 1 | 09/21/18 22:21 | NA | |
| Chlorophyll A | SM20 10200 H | **0.995** | | ug/L | 0.040 | 1 | 09/27/18 13:28 | NA | |
| Color, True | SM 2120 B-2001(2011) | **17.0** | | ColorUnits | 1.0 | 1 | 09/20/18 10:00 | NA | * |
| Nitrate+Nitrite as Nitrogen | 353.2 | **0.0146** | | mg/L | 0.0020 | 1 | 09/27/18 17:03 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.36** | | mg/L | 0.10 | 1 | 09/27/18 12:03 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **6.48** | | pH Units | - | 1 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/28/18 18:38 | 09/27/18 | |

Analytical Report

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 08:15 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK313 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-014 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | 0.0050 U | mg/L | 0.0050 | 1 | 09/28/18 16:44 | 09/27/18 | |

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 08:25 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK314 | **Basis:** | NA |
| **Lab Code:** | R1809020-015 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | **0.160** | mg/L | 0.0050 | 1 | 09/23/18 13:59 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **3.6** | mg/L | 1.0 | 1 | 09/21/18 22:42 | NA | |
| Color, True | SM 2120 B-2001(2011) | **47.0** | ColorUnits | 1.0 | 1 | 09/20/18 10:00 | NA | * |
| Nitrate+Nitrite as Nitrogen | 353.2 | **0.0914** | mg/L | 0.0020 | 1 | 09/27/18 17:04 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.46** | mg/L | 0.10 | 1 | 09/27/18 12:03 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **6.24** | pH Units | - | 1 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | **0.0078** | mg/L | 0.0050 | 1 | 09/28/18 18:41 | 09/27/18 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 08:25 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK314 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-016 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | 0.0050 U | mg/L | 0.0050 | 1 | 09/28/18 16:45 | 09/27/18 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 10:08 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK305 | **Basis:** | NA |
| **Lab Code:** | R1809020-017 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | SM 2320 B-1997(2011) | **4.0** | mg/L | 2.0 | 1 | 09/25/18 08:22 | NA | |
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | **0.0056** | mg/L | 0.0050 | 1 | 09/23/18 18:48 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **7.3** | mg/L | 1.0 | 1 | 09/21/18 23:02 | NA | |
| Chlorophyll A | SM20 10200 H | **4.60** | ug/L | 0.32 | 4 | 09/27/18 13:28 | NA | |
| Color, True | SM 2120 B-2001(2011) | **52.0** | ColorUnits | 1.0 | 1 | 09/20/18 10:00 | NA | |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.0020 U | mg/L | 0.0020 | 1 | 09/27/18 17:05 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.61** | mg/L | 0.10 | 1 | 09/27/18 12:04 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **6.69** | pH Units | - | 1 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | **0.0072** | mg/L | 0.0050 | 1 | 09/28/18 18:42 | 09/27/18 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 10:08 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK305 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-018 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | 0.0050 U | mg/L | 0.0050 | 1 | 09/28/18 16:46 | 09/27/18 | |

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 10:15 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK306 | **Basis:** | NA |
| **Lab Code:** | R1809020-019 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | **0.296** | mg/L | 0.0050 | 1 | 09/23/18 19:04 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **7.6** | mg/L | 1.0 | 1 | 09/22/18 00:47 | NA | |
| Color, True | SM 2120 B-2001(2011) | **210** | ColorUnits | 10 | 10 | 09/20/18 10:00 | NA | |
| Nitrate+Nitrite as Nitrogen | 353.2 | **0.0080** | mg/L | 0.0020 | 1 | 09/27/18 17:07 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.73** | mg/L | 0.10 | 1 | 09/27/18 12:05 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **6.54** | pH Units | - | 10 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | **0.0165** | mg/L | 0.0050 | 1 | 09/28/18 18:43 | 09/27/18 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 10:15 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK306 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-020 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | **0.0064** | mg/L | 0.0050 | 1 | 09/28/18 16:47 | 09/27/18 | |

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 11:53 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK311 | **Basis:** | NA |
| **Lab Code:** | R1809020-021 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | SM 2320 B-1997(2011) | **18.4** | mg/L | 2.0 | 1 | 09/25/18 08:26 | NA | |
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | **0.0078** | mg/L | 0.0050 | 1 | 09/23/18 16:07 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **15.8** | mg/L | 1.0 | 1 | 09/22/18 01:08 | NA | |
| Chlorophyll A | SM20 10200 H | **3.80** | ug/L | 0.16 | 1 | 09/27/18 13:28 | NA | |
| Color, True | SM 2120 B-2001(2011) | **160** | ColorUnits | 10 | 10 | 09/20/18 10:00 | NA | |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.0020 U | mg/L | 0.0020 | 1 | 09/27/18 17:08 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.90** | mg/L | 0.10 | 1 | 09/27/18 12:05 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **7.04** | pH Units | - | 10 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | **0.0232** | mg/L | 0.0050 | 1 | 09/28/18 18:45 | 09/27/18 | |

Analytical Report

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|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 11:53 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK311 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-022 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | **0.0098** | mg/L | 0.0050 | 1 | 09/28/18 16:48 | 09/27/18 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 08:25 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK399 | **Basis:** | NA |
| **Lab Code:** | R1809020-023 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | **0.159** | mg/L | 0.0050 | 1 | 09/23/18 16:23 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | **3.6** | mg/L | 1.0 | 1 | 09/22/18 01:29 | NA | |
| Color, True | SM 2120 B-2001(2011) | **44.0** | ColorUnits | 1.0 | 1 | 09/20/18 10:00 | NA | * |
| Nitrate+Nitrite as Nitrogen | 353.2 | **0.0913** | mg/L | 0.0020 | 1 | 09/27/18 17:09 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.40** | mg/L | 0.10 | 1 | 09/27/18 14:28 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **6.29** | pH Units | - | 1 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | **0.0083** | mg/L | 0.0050 | 1 | 09/28/18 18:46 | 09/27/18 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 08:25 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK399 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-024 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | 0.0050 U | mg/L | 0.0050 | 1 | 09/28/18 16:49 | 09/27/18 | |

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 11:53 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK398 | **Basis:** | NA |
| **Lab Code:** | R1809020-025 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | SM 2320 B-1997(2011) | 2.0 | U | mg/L | 2.0 | 1 | 09/25/18 08:29 | NA | |
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/23/18 16:39 | NA | |
| Chlorophyll A | SM20 10200 H | 0.16 | U | ug/L | 0.16 | 1 | 09/27/18 13:28 | NA | |
| Color, True | SM 2120 B-2001(2011) | **8.0** | | ColorUnits | 1.0 | 1 | 09/20/18 10:00 | NA | |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.0040 | U | mg/L | 0.0040 | 2 | 09/27/18 18:16 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | **0.19** | | mg/L | 0.10 | 1 | 09/27/18 14:01 | 09/26/18 | |
| pH of Color Analysis | SM 2120 B-2001(2011) | **6.58** | | pH Units | - | 1 | 09/24/18 15:00 | NA | * |
| Phosphorus, Total | 365.1 | 0.010 | U | mg/L | 0.010 | 2 | 09/28/18 19:05 | 09/27/18 | |

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 11:53 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 17:00 |
| **Sample Name:** | 18BLK398 Diss | **Basis:** | NA |
| **Lab Code:** | R1809020-026 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Phosphorus, Dissolved | 365.1 | 0.0050 U | mg/L | 0.0050 | 1 | 09/28/18 18:50 | 09/27/18 | |

# QC Summary Forms

**ALS Environmental—Rochester Laboratory**
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# General Chemistry

**ALS Environmental—Rochester Laboratory**
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www.alsglobal.com

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | NA |
| **Sample Matrix:** | Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Basis:** | NA |
| **Lab Code:** | R1809020-MB1 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | SM 2320 B-1997(2011) | 2.0 | U | mg/L | 2.0 | 1 | 09/25/18 07:18 | NA | |
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/23/18 08:22 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | 1.0 | U | mg/L | 1.0 | 1 | 09/21/18 06:49 | NA | |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.0020 | U | mg/L | 0.0020 | 1 | 09/27/18 16:11 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | 0.10 | U | mg/L | 0.10 | 1 | 09/27/18 11:45 | 09/26/18 | |
| Phosphorus, Dissolved | 365.1 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/28/18 16:27 | 09/27/18 | |
| Phosphorus, Total | 365.1 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/28/18 18:15 | 09/27/18 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | NA |
| **Sample Matrix:** | Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Basis:** | NA |
| **Lab Code:** | R1809020-MB2 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | 0.0050 | U | mg/L | 0.0050 | 1 | 09/23/18 14:47 | NA | |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | 1.0 | U | mg/L | 1.0 | 1 | 09/21/18 19:54 | NA | |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.0020 | U | mg/L | 0.0020 | 1 | 09/27/18 16:43 | NA | |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | 0.10 | U | mg/L | 0.10 | 1 | 09/27/18 13:57 | 09/26/18 | |

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/17/18 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 |
| | | **Date Analyzed:** | 09/28/18 |
| | | **Date Extracted:** | 09/27/18 |

## Duplicate Matrix Spike Summary
## Phosphorus, Total

| | | | |
|---|---|---|---|
| **Sample Name:** | 18BLK301 | **Units:** | mg/L |
| **Lab Code:** | R1809020-001 | **Basis:** | NA |
| **Analysis Method:** | 365.1 | | |
| **Prep Method:** | Method | | |

| | | Matrix Spike R1809020-001MS | | | Duplicate Matrix Spike R1809020-001DMS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Phosphorus, Total | 0.0050 U | 0.0265 | 0.0250 | 106 | 0.0262 | 0.0250 | 105 | 75-125 | 1 | 20 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Client:** New York State DEC
**Project:** LCI 2018/LCI2018
**Sample Matrix:** Water

**Service Request:**R1809020
**Date Collected:**09/17/18
**Date Received:**09/19/18
**Date Analyzed:**09/21/18 - 09/27/18

## Duplicate Matrix Spike Summary
## General Chemistry Parameters

**Sample Name:** 18BLK304
**Lab Code:** R1809020-007

**Units:**mg/L
**Basis:**NA

| | | | Matrix Spike | | | Duplicate Matrix Spike | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | R1809020-007MS | | | R1809020-007DMS | | | | | |
| **Analyte Name** | **Method** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.165 | 0.656 | 0.500 | 98 | 0.657 | 0.500 | 98 | 75-125 | <1 | 20 |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | 4.2 | 16.2 | 10.0 | 120 | 16.2 | 10.0 | 120 | 75-125 | <1 | 20 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

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**ALS Group USA, Corp.**
**dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 |
| | | **Date Analyzed:** | 09/21/18 |

**Duplicate Matrix Spike Summary**
**Carbon, Total Organic (TOC)**

| | | | |
|---|---|---|---|
| **Sample Name:** | 18BLK305 | **Units:** | mg/L |
| **Lab Code:** | R1809020-017 | **Basis:** | NA |
| **Analysis Method:** | SM 5310 C-2000(2011) | | |

| | | **Matrix Spike** R1809020-017MS | | | **Duplicate Matrix Spike** R1809020-017DMS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Carbon, Total Organic (TOC) | 7.3 | 20.1 | 10.0 | 128 * | 19.5 | 10.0 | 122 | 75-125 | 3 | 20 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 |
| | | **Date Analyzed:** | 09/28/18 |
| | | **Date Extracted:** | 09/27/18 |

## Duplicate Matrix Spike Summary
## Phosphorus, Total

| | | | |
|---|---|---|---|
| **Sample Name:** | 18BLK399 | **Units:** | mg/L |
| **Lab Code:** | R1809020-023 | **Basis:** | NA |
| **Analysis Method:** | 365.1 | | |
| **Prep Method:** | Method | | |

| | | Matrix Spike | | | Duplicate Matrix Spike | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | R1809020-023MS | | | R1809020-023DMS | | | | | |
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Phosphorus, Total | 0.0083 | 0.0285 | 0.0250 | 81 | 0.0291 | 0.0250 | 84 | 75-125 | 2 | 20 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Client:** New York State DEC
**Project:** LCI 2018/LCI2018
**Sample Matrix:** Water

**Service Request:**R1809020
**Date Collected:**09/18/18
**Date Received:**09/19/18
**Date Analyzed:**09/23/18 - 09/27/18

## Duplicate Matrix Spike Summary
## General Chemistry Parameters

**Sample Name:** 18BLK398
**Lab Code:** R1809020-025

**Units:**mg/L
**Basis:**NA

| | | | Matrix Spike | | | Duplicate Matrix Spike | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | R1809020-025MS | | | R1809020-025DMS | | | | | |
| **Analyte Name** | **Method** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | 0.0050 U | 0.554 | 0.500 | 111 | 0.546 | 0.500 | 109 | 75-125 | 1 | 20 |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.0040 U | 1.02 | 1.00 | 102 | 1.01 | 1.00 | 101 | 75-125 | <1 | 20 |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | 0.19 | 2.63 | 2.50 | 98 | 2.64 | 2.50 | 98 | 75-125 | <1 | 20 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project:** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 |
| | | **Date Analyzed:** | 09/28/18 |
| | | **Date Extracted:** | 09/27/18 |

## Duplicate Matrix Spike Summary
## Phosphorus, Dissolved

| | | | |
|---|---|---|---|
| **Sample Name:** | 18BLK398 Diss | **Units:** | mg/L |
| **Lab Code:** | R1809020-026 | **Basis:** | NA |
| **Analysis Method:** | 365.1 | | |
| **Prep Method:** | Method | | |

| | | **Matrix Spike** R1809020-026MS | | | **Duplicate Matrix Spike** R1809020-026DMS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Phosphorus, Dissolved | 0.0050 U | 0.0236 | 0.0250 | 94 | 0.0222 | 0.0250 | 89 | 75-125 | 6 | 20 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 |
| | | **Date Analyzed:** | 09/20/18 |

## Replicate Sample Summary
## General Chemistry Parameters

| | | | |
|---|---|---|---|
| **Sample Name:** | 18BLK398 | **Units:** | ColorUnits |
| **Lab Code:** | R1809020-025 | **Basis:** | NA |

| Analyte Name | Analysis Method | MRL | Sample Result | Duplicate Sample R1809020-025DUP Result | Average | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|
| Color, True | SM 2120 B-2001(2011) | 1.0 | 8.0 | 8.0 | 8.00 | <1 | 5 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

| | | | |
|---|---|---|---|
| **Client:** | New York State DEC | **Service Request:** | R1809020 |
| **Project** | LCI 2018/LCI2018 | **Date Collected:** | 09/18/18 |
| **Sample Matrix:** | Water | **Date Received:** | 09/19/18 |
| | | **Date Analyzed:** | 09/24/18 |

## Replicate Sample Summary
## General Chemistry Parameters

| | | | |
|---|---|---|---|
| **Sample Name:** | 18BLK398 | **Units:** | pH Units |
| **Lab Code:** | R1809020-025 | **Basis:** | NA |

| Analyte Name | Analysis Method | MRL | Sample Result | Duplicate Sample R1809020-025DUP Result | Average | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|
| pH of Color Analysis | SM 2120 B-2001(2011) | - | 6.58 | 6.58 | 6.58 | <1 | 20 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Client:** New York State DEC
**Project:** LCI 2018/LCI2018
**Sample Matrix:** Water

**Service Request:** R1809020
**Date Analyzed:** 09/21/18 - 09/28/18

## Lab Control Sample Summary
## General Chemistry Parameters

**Units:**mg/L
**Basis:**NA

### Lab Control Sample
R1809020-LCS1

| Analyte Name | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | SM 2320 B-1997(2011) | 21.2 | 20.0 | 106 | 70-130 |
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | 0.491 | 0.500 | 98 | 70-130 |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | 10.1 | 10.0 | 101 | 70-130 |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.516 | 0.500 | 103 | 70-130 |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | 2.26 | 2.50 | 90 | 70-130 |
| Phosphorus, Dissolved | 365.1 | 0.0242 | 0.0250 | 97 | 70-130 |
| Phosphorus, Total | 365.1 | 0.0231 | 0.0250 | 92 | 70-130 |

**Client:** New York State DEC
**Project:** LCI 2018/LCI2018
**Sample Matrix:** Water

**Service Request:** R1809020
**Date Analyzed:** 09/21/18 - 09/27/18

## Lab Control Sample Summary
## General Chemistry Parameters

**Units:**mg/L
**Basis:**NA

### Lab Control Sample
R1809020-LCS2

| Analyte Name | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| Ammonia as Nitrogen, undistilled | ASTM D6919-09 | 0.549 | 0.500 | 110 | 70-130 |
| Carbon, Total Organic (TOC) | SM 5310 C-2000(2011) | 9.62 | 10.0 | 96 | 70-130 |
| Nitrate+Nitrite as Nitrogen | 353.2 | 0.508 | 0.500 | 102 | 70-130 |
| Nitrogen, Total Kjeldahl (TKN) | 351.2 | 2.47 | 2.50 | 99 | 70-130 |