



August 21, 2018

Service Request No:R1807070

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 July 26, 2018  
For your reference, these analyses have been assigned our service request number **R1807070**.

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](mailto: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**

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

**Service Request:** R1807070  
**Date Received:** 07/26/2018

### 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 two water samples were received for analysis at ALS Environmental on 07/26/2018. 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 SM 2120 B-2001(2011): One or more samples were received with insufficient hold time remaining to complete the analysis within the recommended limit. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time violation.

A handwritten signature in black ink, appearing to read "Jamar" followed by a stylized flourish.

Approved by \_\_\_\_\_

Date 08/21/2018

### SAMPLE DETECTION SUMMARY

<b>CLIENT ID: 18LIS005</b>	<b>Lab ID: R1807070-001</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO <sub>3</sub>	14.8		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0089		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	7.0		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	139			8.0	ug/L	SM20 10200 H
Color, True	100			5.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrogen, Total Kjeldahl (TKN)	2.95		0.08	0.10	mg/L	351.2
pH of Color Analysis	8.00				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.48		0.04	0.10	mg/L	365.1

<b>CLIENT ID: 18LIS005 Diss</b>	<b>Lab ID: R1807070-002</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.319		0.020	0.050	mg/L	365.1

<b>CLIENT ID: 18LIS021</b>	<b>Lab ID: R1807070-003</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO <sub>3</sub>	91.6		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0066		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	5.4		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	235			5.3	ug/L	SM20 10200 H
Color, True	170			10	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.303		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	1.79		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.81				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.062		0.004	0.010	mg/L	365.1

<b>CLIENT ID: 18LIS021 Diss</b>	<b>Lab ID: R1807070-004</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0079		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS035</b>	<b>Lab ID: R1807070-005</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO <sub>3</sub>	119		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.088		0.008	0.050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	3.1		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	40.0			1.6	ug/L	SM20 10200 H
Color, True	28.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.736		0.0007	0.0020	mg/L	353.2

### SAMPLE DETECTION SUMMARY

<b>CLIENT ID: 18LIS035</b>	<b>Lab ID: R1807070-005</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Nitrogen, Total Kjeldahl (TKN)	1.29		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.75				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0271		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS099</b>	<b>Lab ID: R1807070-007</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO <sub>3</sub>	118		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.087		0.008	0.050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	3.0		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	39.7			3.2	ug/L	SM20 10200 H
Color, True	38.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.735		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	1.47		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.72				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0291		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS099 Diss</b>	<b>Lab ID: R1807070-008</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0059		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS025</b>	<b>Lab ID: R1807070-009</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO <sub>3</sub>	60.4		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0102		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	11.5		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	197			5.3	ug/L	SM20 10200 H
Color, True	160			10	ColorUnits	SM 2120 B-2001 (2011)
Nitrogen, Total Kjeldahl (TKN)	2.28		0.08	0.10	mg/L	351.2
pH of Color Analysis	9.17				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.106		0.004	0.010	mg/L	365.1

<b>CLIENT ID: 18LIS025 Diss</b>	<b>Lab ID: R1807070-010</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0161		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS098</b>	<b>Lab ID: R1807070-011</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon, Total Organic (TOC)	1.6		0.05	1.0	mg/L	SM 5310 C-2000 (2011)

### SAMPLE DETECTION SUMMARY

<b>CLIENT ID: 18LIS098</b>	<b>Lab ID: R1807070-011</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Chlorophyll A	0.70			0.16	ug/L	SM20 10200 H
Color, True	12.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrogen, Total Kjeldahl (TKN)	0.10		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.32				pH Units	SM 2120 B-2001 (2011)

<b>CLIENT ID: 18LIS013</b>	<b>Lab ID: R1807070-013</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	80.4		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0247		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	4.7		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	88.0			3.2	ug/L	SM20 10200 H
Color, True	105			5.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.252		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	0.92		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.56				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0868		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS013 Diss</b>	<b>Lab ID: R1807070-014</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0192		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS037</b>	<b>Lab ID: R1807070-015</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	29.6		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0108		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	6.4		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	6.99			0.80	ug/L	SM20 10200 H
Color, True	33.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.0020		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	0.68		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.61				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0198		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS037 Diss</b>	<b>Lab ID: R1807070-016</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0091		0.0020	0.0050	mg/L	365.1

### SAMPLE DETECTION SUMMARY

<b>CLIENT ID: 18LIS059</b>	<b>Lab ID: R1807070-017</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO <sub>3</sub>	56.4		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0154		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	8.2		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	80.6			5.3	ug/L	SM20 10200 H
Color, True	210			10	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.0095		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	1.53		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.58				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.172		0.010	0.025	mg/L	365.1

<b>CLIENT ID: 18LIS059 Diss</b>	<b>Lab ID: R1807070-018</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0778		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS001</b>	<b>Lab ID: R1807070-019</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO <sub>3</sub>	108		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0092		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	4.8		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	75.2			3.2	ug/L	SM20 10200 H
Color, True	85.0			5.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.440		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	0.72		0.08	0.10	mg/L	351.2
pH of Color Analysis	8.37				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0848		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS001 Diss</b>	<b>Lab ID: R1807070-020</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0475		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS038</b>	<b>Lab ID: R1807070-021</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Ammonia as Nitrogen, undistilled	0.0079		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	6.2		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Color, True	43.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrogen, Total Kjeldahl (TKN)	0.56		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.59				pH Units	SM 2120 B-2001 (2011)

**SAMPLE DETECTION SUMMARY**

<b>CLIENT ID: 18LIS038</b>			<b>Lab ID: R1807070-021</b>			
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<b>Analyte</b>	<b>Results</b>	<b>Flag</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>	<b>Method</b>
Phosphorus, Total	0.0260		0.0020	0.0050	mg/L	365.1

<b>CLIENT ID: 18LIS038 Diss</b>			<b>Lab ID: R1807070-022</b>			
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<b>Analyte</b>	<b>Results</b>	<b>Flag</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>	<b>Method</b>
Phosphorus, Dissolved	0.0076		0.0020	0.0050	mg/L	365.1





## 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](http://www.alsglobal.com)

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

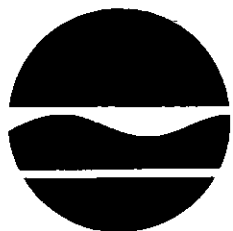
**Service Request:**R1807070

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1807070-001	18LIS005	7/24/2018	1045
R1807070-002	18LIS005 Diss	7/24/2018	1045
R1807070-003	18LIS021	7/24/2018	1200
R1807070-004	18LIS021 Diss	7/24/2018	1200
R1807070-005	18LIS035	7/24/2018	1300
R1807070-006	18LIS035 Diss	7/24/2018	1300
R1807070-007	18LIS099	7/24/2018	1300
R1807070-008	18LIS099 Diss	7/24/2018	1300
R1807070-009	18LIS025	7/24/2018	1500
R1807070-010	18LIS025 Diss	7/24/2018	1500
R1807070-011	18LIS098	7/24/2018	1530
R1807070-012	18LIS098 Diss	7/24/2018	1530
R1807070-013	18LIS013	7/25/2018	0915
R1807070-014	18LIS013 Diss	7/25/2018	0915
R1807070-015	18LIS037	7/25/2018	1045
R1807070-016	18LIS037 Diss	7/25/2018	1045
R1807070-017	18LIS059	7/25/2018	1215
R1807070-018	18LIS059 Diss	7/25/2018	1215
R1807070-019	18LIS001	7/25/2018	1430
R1807070-020	18LIS001 Diss	7/25/2018	1430
R1807070-021	18LIS038	7/25/2018	1100
R1807070-022	18LIS038 Diss	7/25/2018	1100

# CHAIN OF CUSTODY

Page 1 of 1



New York State Department of  
Environmental Conservation –  
Division of Water

Project Name: LCI

Project Number: LCI2018

NYSDEC SDG:

Sampler Collector:

*Rebecca Corney*

Sampler Signature:

*Rebecca Corney*

Sampler Phone No.:

Project Manager: Alene Onion

☒ Report to Project Manager

☐ Bill to Project Manager

Report to:

Bill to: Jason Fagel

Address: 625 Broadway, 4<sup>th</sup> Floor  
Albany, NY 12233-3502

Address:

Address: 625 Broadway, 4<sup>th</sup> 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 \_\_\_\_\_

## Analyses Ordered (list)

## Preservative Codes:

0 = Cool to < 6°C  
1 = HCL  
2 = HNO<sub>3</sub>  
3 = H<sub>2</sub>SO<sub>4</sub>  
4 = NaOH  
5 = Zn. Acetate  
6 = MeOH  
7 = NaHSO<sub>4</sub>  
8 = Other \_\_\_\_\_

NYSDEC  
LCI Sample ID

Collection Date

Collection Time

Matrix Code

No. of Containers

3  
TP, NH<sub>4</sub>, NO<sub>x</sub>, TKN  
ANC  
TP, NH<sub>4</sub>, NO<sub>x</sub>, TKN, NO<sub>3</sub>

2  
Dissolved TOP4  
Fe, Mn, As,  
Ca, Mg, Na, K

0  
Fe, Mn, As, Ca, Mg, Na, K

3  
Color  
TOC  
DOC

0  
Alkalinity  
SO<sub>4</sub> & UV-254  
SO<sub>4</sub>, Cl

0  
SO<sub>4</sub>, Cl, UV-254

Chlorophyll a  
Vol (ml)

## Location Info

18L15005	7/24/18	10:45	AW	6	X	X				X	X	X			X	100	Bowling Pond
18L15021	7/24/18	1300	AW	6	X	X				X	X	X			X	150	Golden Pond
18L15035	7/24/18	1300	AW	6	X	X				X	X	X			X	250	Outland Pond
18L15099	7/24/18	1300	AW	6	X	X				X	X	X			X	250	Dudicate QA
18L15025	7/24/18	1500	AW	6	X	X				X	X	X			X	150	Kissena
18L15098	7/24/18	1530	AW	6	X	X				X	X	X			X	250	QA

## Special Analysis Instructions:

Relinquished by Sampler:

*Rebecca Corney*

Date:

7/25/18

Time:

17:00

Received by:

Date:

Time:

Laboratory Receipt Notes:

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

Relinquished by:

Date:

Time:

Received by Laboratory:

Date:

Time:

Sample T  
Property  
Samples

R1807070

New York State DEC  
LCI 2018

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## Cooler Receipt and Preservation Check Form

R1807070

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New York State DEC  
LCI 2018Project/Client LCI Folder Number \_\_\_\_\_Cooler received on 7/26/18 by: e COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <u>N</u>
2	Custody papers properly completed (ink, signed)?	Y <u>N</u>
3	Did all bottles arrive in good condition (unbroken)?	<u>Y</u> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<u>Y</u> N

5a	Perchlorate samples have required headspace?	Y N <u>NA</u>
5b	Did VOA vials, <u>Alk</u> or Sulfide have sig* bubbles?	Y <u>N</u> NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<u>NA</u>

8. Temperature Readings Date: 7/26/18 Time: 0946 ID: IR# IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>6.7</u>						
Correction Factor (°C)	<u>+1.0</u>						
Corrected Temp (°C)	<u>7.7</u>						
Temp from: Type of bottle	<u>Cent tube</u>						
Within 0-6°C?	Y <u>N</u>	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-012 by e on 7/26/18 at 0950  
 5035 samples placed in storage location: \_\_\_\_\_ by \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_

Cooler Breakdown/Preservation Check\*\*: Date: \_\_\_\_\_ Time: \_\_\_\_\_ 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?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO <sub>3</sub>								
≤2		H <sub>2</sub> SO <sub>4</sub>								
<4		NaHSO <sub>4</sub>								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (625, 608, CN), ascorbic (phenol).					
		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>								
		ZnAcetate	-	-						
		HCl	**	**						

\*\*VOAs and 1664 Not to be tested before analysis.  
 Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: \_\_\_\_\_  
 Explain all Discrepancies/ Other Comments: See last page

CLRES	BULK
DO	FLDT
HPROD	HGFB
<u>HTR</u>	LL3541
PH	SUB
SO3	MARRS
ALS	REV

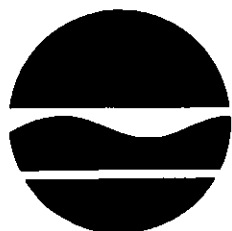
Labels secondary reviewed by: \_\_\_\_\_

PC Secondary Review: \_\_\_\_\_

12 of 66 Significant air bubbles: VOA &gt; 5-6 mm : WC &gt; 1 in. diameter

# CHAIN OF CUSTODY

Page 1 of 1



New York State Department of  
Environmental Conservation –  
Division of Water

**Project Name:** LCI  
**Sampler Collector:** Jesse Keltz  
**Project Manager:** Alene Onion  
**Address:** 625 Broadway, 4<sup>th</sup> Floor  
Albany, NY 12233-3502  
**Phone:** (518) 402-8166  
**Email:** alene.onion@dec.ny.gov

**Project Number:** LCI2018  
**Sampler Signature:** [Signature]  
**X Report to Project Manager**  
**Report to:**  
**Address:**  
**Phone:**  
**Email:**

**NYSDEC SDG:**  
**Sampler Phone No.:**  
☐ **Bill to Project Manager**  
**Bill to:** Jason Fagel  
**Address:** 625 Broadway, 4<sup>th</sup> Floor  
Albany, NY 12233-3502  
**Phone:** 518-402-8156  
**Email:** Jason.fagel@dec.ny.gov

## Matrix Codes:

**WW** = Wastewater  
**GW** = Groundwater  
**AW** = Ambient Water  
**SE** = Sediment  
**SL** = Sludge  
**T** = Tissue  
**O** = Other \_\_\_\_\_

## Analyses Ordered (list)

## Preservative Codes:

0 = Cool to < 6°C  
1 = HCL  
2 = HNO<sub>3</sub>  
3 = H<sub>2</sub>SO<sub>4</sub>  
4 = NaOH  
5 = Zn. Acetate  
6 = MeOH  
7 = NaHSO<sub>4</sub>  
8 = Other \_\_\_\_\_

Matrix Codes:																																								
WW = Wastewater GW = Groundwater AW = Ambient Water SE = Sediment SL = Sludge T = Tissue O = Other _____					Collection Date		Collection Time		Matrix Code		No. of Containers		3		2		0		3		0		0																	
NYSDEC LCI Sample ID													TP, NH4, NOx, TKN		TP, NH4, NOx, TKN, NO3		Dissolved TOP4		Fe, Mn, As,		Ca, Mg, Na, K		Fe, Mn, As, Ca, Mg, Na, K		Color		TOC		DOC		Alkalinity		SO4 & UV-254		SO4, Cl		SO4, Cl, UV-254		Chlorophyll a   Vol (ml)	
18 L15013					2/25/18		09:15		AW		6		X				X										X		X								X		250	
18 L15027					7/25/18		12:45		AW		6		X				X										X		X								X		250	
18 L15059					2/25/18		12:15		AW		6		X				X										X		X								X		250	
18 L15007					7/25/18		14:30		AW		6		X				X										X		X								V		250	
18 L15038					7/26/18		11:00		AW		4		X				X																							

## Special Analysis Instructions:

Relinquished by Sampler:

Date:

Time:

Received by:

Date:

Time:

Laboratory Receipt Notes:

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

Relinquished by:

Date:

Time:

Received by Laboratory:

Date:

Time:

Sample T  
Property  
Samples

**R1807070**

New York State DEC  
LCI 2018

5





## Cooler Receipt and Preservation Check Form

R1807070

New York State DEC  
LCI 2018

5

Project/Client LCI Folder Number \_\_\_\_\_Cooler received on 7/26/18 by: @COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<u>(X)</u> <u>(N)</u>
2	Custody papers properly completed (ink, signed)?	<u>(X)</u> <u>(N)</u>
3	Did all bottles arrive in good condition (unbroken)?	<u>(Y)</u> <u>(N)</u>
4	Circle: Wet Ice Dry Ice Gel packs present?	<u>(Y)</u> <u>(N)</u>

5a	Perchlorate samples have required headspace?	<u>(Y)</u> <u>(N)</u> <u>(NA)</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	<u>(Y)</u> <u>(N)</u> <u>(NA)</u>
6	Where did the bottles originate?	<u>ALS/ROE</u> CLIENT
7	Soil VOA received as:	Bulk Encore 5035set <u>(NA)</u>

8. Temperature Readings Date: 7/26/18 Time: 0959 ID: IR# IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>16.8</u>						
Correction Factor (°C)	<u>+1.0</u>						
Corrected Temp (°C)	<u>17.8</u>						
Temp from: Type of bottle	<u>Cent tube</u>						
Within 0-6°C?	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>
If <0°C, were samples frozen?	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>	<u>(Y)</u> <u>(N)</u>

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

&amp; Client Approval to Run Samples: \_\_\_\_\_ Standing Approval Client aware at drop-off Client notified by: \_\_\_\_\_

All samples held in storage location: R-002 by @ on 7/26/18 at 1010  
5035 samples placed in storage location: \_\_\_\_\_ by \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_Cooler Breakdown/Preservation Check\*\*: Date: 7/27/18 Time: 1350 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)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized (N/A) Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO <sub>3</sub>								
≤2	<u>204518</u>	H <sub>2</sub> SO <sub>4</sub>	<u>✓</u>		<u>190642, 2113001</u>	<u>6/19</u>				
<4		NaHSO <sub>4</sub>								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (625, 608, CN), ascorbic (phenol).					
		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>								
		ZnAcetate	-	-						
		HCl	**	**						

\*\*VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 8-072-001, 81116.23  
Explain all Discrepancies/ Other Comments:

label for 18215998  
says DOC, but  
COC says TOC

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: @  
PC Secondary Review: 7/30/18 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](http://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.	+	Correlation coefficient for MSA is <0.995.
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/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
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.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the öNotesö column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an öimmediateö hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (×100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) 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<sup>1</sup>

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Approved	New Jersey ID # NY004	294100 A/B
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's 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

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### 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.

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

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

**Service Request:** R1807070

**Non-Certified Analytes**

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

<b>Method</b>	<b>Matrix</b>	<b>Analyte</b>
SM20 10200 H	Water	Chlorophyll A

**ALS Group USA, Corp.**

dba ALS Environmental

## Analyst Summary report

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

**Service Request:** R1807070

**Sample Name:** 18LIS005  
**Lab Code:** R1807070-001  
**Sample Matrix:** Water

**Date Collected:** 07/24/18  
**Date Received:** 07/26/18

**Analysis Method**

351.2

353.2

365.1

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5310 C-2000(2011)

SM20 10200 H

**Extracted/Digested By**

NSMITH

MROGERSON

**Analyzed By**

CWOODS

GNITAJOUPPI

GNITAJOUPPI

AMOSSES

SCYMBAL

CWOODS

CWOODS

NSMITH

**Sample Name:** 18LIS005 Diss  
**Lab Code:** R1807070-002  
**Sample Matrix:** Water

**Date Collected:** 07/24/18  
**Date Received:** 07/26/18

**Analysis Method**

365.1

**Extracted/Digested By**

AFELSER

**Analyzed By**

MROGERSON

**Sample Name:** 18LIS021  
**Lab Code:** R1807070-003  
**Sample Matrix:** Water

**Date Collected:** 07/24/18  
**Date Received:** 07/26/18

**Analysis Method**

351.2

353.2

365.1

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5310 C-2000(2011)

SM20 10200 H

**Extracted/Digested By**

NSMITH

MROGERSON

**Analyzed By**

CWOODS

GNITAJOUPPI

GNITAJOUPPI

AMOSSES

SCYMBAL

CWOODS

CWOODS

NSMITH

**ALS Group USA, Corp.**

dba ALS Environmental

## Analyst Summary report

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

**Service Request:** R1807070

**Sample Name:** 18LIS021 Diss  
**Lab Code:** R1807070-004  
**Sample Matrix:** Water

**Date Collected:** 07/24/18  
**Date Received:** 07/26/18

**Analysis Method**

365.1

**Extracted/Digested By**

AFELSER

**Analyzed By**

MROGERSON

**Sample Name:** 18LIS035  
**Lab Code:** R1807070-005  
**Sample Matrix:** Water

**Date Collected:** 07/24/18  
**Date Received:** 07/26/18

**Analysis Method**

351.2

353.2

365.1

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5310 C-2000(2011)

SM20 10200 H

**Extracted/Digested By**

NSMITH

MROGERSON

**Analyzed By**

CWOODS

GNITAJOUPPI

GNITAJOUPPI

AMOSSES

SCYMBAL

**Sample Name:** 18LIS035 Diss  
**Lab Code:** R1807070-006  
**Sample Matrix:** Water

**Date Collected:** 07/24/18  
**Date Received:** 07/26/18

**Analysis Method**

365.1

**Extracted/Digested By**

AFELSER

**Analyzed By**

MROGERSON

**Sample Name:** 18LIS099  
**Lab Code:** R1807070-007  
**Sample Matrix:** Water

**Date Collected:** 07/24/18  
**Date Received:** 07/26/18

**Analysis Method**

351.2

353.2

365.1

**Extracted/Digested By**

NSMITH

MROGERSON

**Analyzed By**

CWOODS

GNITAJOUPPI

GNITAJOUPPI

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

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

**Service Request:** R1807070

**Sample Name:** 18LIS099  
**Lab Code:** R1807070-007  
**Sample Matrix:** Water

**Date Collected:** 07/24/18  
**Date Received:** 07/26/18

Analysis Method	Extracted/Digested By	Analyzed By
ASTM D6919-09		AMOSSES
SM 2120 B-2001(2011)		SCYMBAL
SM 2320 B-1997(2011)		CWOODS
SM 5310 C-2000(2011)		CWOODS
SM20 10200 H		NSMITH

**Sample Name:** 18LIS099 Diss  
**Lab Code:** R1807070-008  
**Sample Matrix:** Water

**Date Collected:** 07/24/18  
**Date Received:** 07/26/18

Analysis Method	Extracted/Digested By	Analyzed By
365.1	AFELSER	MROGERSON

**Sample Name:** 18LIS025  
**Lab Code:** R1807070-009  
**Sample Matrix:** Water

**Date Collected:** 07/24/18  
**Date Received:** 07/26/18

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

**ALS Group USA, Corp.**

dba ALS Environmental

## Analyst Summary report

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

**Service Request:** R1807070

**Sample Name:** 18LIS025 Diss  
**Lab Code:** R1807070-010  
**Sample Matrix:** Water

**Date Collected:** 07/24/18**Date Received:** 07/26/18**Analysis Method**

365.1

**Extracted/Digested By**

AFELSER

**Analyzed By**

MROGERSON

**Sample Name:** 18LIS098  
**Lab Code:** R1807070-011  
**Sample Matrix:** Water

**Date Collected:** 07/24/18**Date Received:** 07/26/18**Analysis Method**

351.2

353.2

365.1

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5310 C-2000(2011)

SM20 10200 H

**Extracted/Digested By**

NSMITH

MROGERSON

**Analyzed By**

CWOODS

GNITAJOUPPI

GNITAJOUPPI

AMOSSES

SCYMBAL

CWOODS

CWOODS

NSMITH

**Sample Name:** 18LIS098 Diss  
**Lab Code:** R1807070-012  
**Sample Matrix:** Water

**Date Collected:** 07/24/18**Date Received:** 07/26/18**Analysis Method**

365.1

**Extracted/Digested By**

AFELSER

**Analyzed By**

MROGERSON

**Sample Name:** 18LIS013  
**Lab Code:** R1807070-013  
**Sample Matrix:** Water

**Date Collected:** 07/25/18**Date Received:** 07/26/18**Analysis Method**

351.2

353.2

365.1

**Extracted/Digested By**

NSMITH

MROGERSON

**Analyzed By**

CWOODS

GNITAJOUPPI

GNITAJOUPPI

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

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

**Service Request:** R1807070

**Sample Name:** 18LIS013  
**Lab Code:** R1807070-013  
**Sample Matrix:** Water

**Date Collected:** 07/25/18  
**Date Received:** 07/26/18

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

ASTM D6919-09

AMOSSES

SM 2120 B-2001(2011)

SCYMBAL

SM 2320 B-1997(2011)

CWOODS

SM 5310 C-2000(2011)

CWOODS

SM20 10200 H

NSMITH

**Sample Name:** 18LIS013 Diss  
**Lab Code:** R1807070-014  
**Sample Matrix:** Water

**Date Collected:** 07/25/18  
**Date Received:** 07/26/18

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

365.1

AFELSER

MROGERSON

**Sample Name:** 18LIS037  
**Lab Code:** R1807070-015  
**Sample Matrix:** Water

**Date Collected:** 07/25/18  
**Date Received:** 07/26/18

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

351.2

NSMITH

CWOODS

353.2

GNITAJOUPPI

365.1

MROGERSON

GNITAJOUPPI

ASTM D6919-09

AMOSSES

SM 2120 B-2001(2011)

SCYMBAL

SM 2320 B-1997(2011)

CWOODS

SM 5310 C-2000(2011)

CWOODS

SM20 10200 H

NSMITH

**ALS Group USA, Corp.**

dba ALS Environmental

## Analyst Summary report

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

**Service Request:** R1807070

**Sample Name:** 18LIS037 Diss  
**Lab Code:** R1807070-016  
**Sample Matrix:** Water

**Date Collected:** 07/25/18**Date Received:** 07/26/18**Analysis Method**

365.1

**Extracted/Digested By**

AFELSER

**Analyzed By**

MROGERSON

**Sample Name:** 18LIS059  
**Lab Code:** R1807070-017  
**Sample Matrix:** Water

**Date Collected:** 07/25/18**Date Received:** 07/26/18**Analysis Method**

351.2

353.2

365.1

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5310 C-2000(2011)

SM20 10200 H

**Extracted/Digested By**

NSMITH

MROGERSON

**Analyzed By**

CWOODS

GNITAJOUPPI

GNITAJOUPPI

AMOSSES

SCYMBAL

CWOODS

CWOODS

NSMITH

**Sample Name:** 18LIS059 Diss  
**Lab Code:** R1807070-018  
**Sample Matrix:** Water

**Date Collected:** 07/25/18**Date Received:** 07/26/18**Analysis Method**

365.1

**Extracted/Digested By**

MROGERSON

**Analyzed By**

GNITAJOUPPI

**Sample Name:** 18LIS001  
**Lab Code:** R1807070-019  
**Sample Matrix:** Water

**Date Collected:** 07/25/18**Date Received:** 07/26/18**Analysis Method**

351.2

353.2

365.1

**Extracted/Digested By**

NSMITH

MROGERSON

**Analyzed By**

CWOODS

GNITAJOUPPI

GNITAJOUPPI



ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

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

**Service Request:** R1807070

**Sample Name:** 18LIS001  
**Lab Code:** R1807070-019  
**Sample Matrix:** Water

**Date Collected:** 07/25/18  
**Date Received:** 07/26/18

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

ASTM D6919-09

AMOSSES

SM 2120 B-2001(2011)

SCYMBAL

SM 2320 B-1997(2011)

CWOODS

SM 5310 C-2000(2011)

CWOODS

SM20 10200 H

NSMITH

**Sample Name:** 18LIS001 Diss  
**Lab Code:** R1807070-020  
**Sample Matrix:** Water

**Date Collected:** 07/25/18  
**Date Received:** 07/26/18

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

365.1

MROGERSON

GNITAJOUPPI

**Sample Name:** 18LIS038  
**Lab Code:** R1807070-021  
**Sample Matrix:** Water

**Date Collected:** 07/25/18  
**Date Received:** 07/26/18

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

351.2

NSMITH

CWOODS

353.2

GNITAJOUPPI

365.1

MROGERSON

GNITAJOUPPI

ASTM D6919-09

AMOSSES

SM 2120 B-2001(2011)

SCYMBAL

SM 5310 C-2000(2011)

CWOODS

**Sample Name:** 18LIS038 Diss  
**Lab Code:** R1807070-022  
**Sample Matrix:** Water

**Date Collected:** 07/25/18  
**Date Received:** 07/26/18

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

365.1

MROGERSON

GNITAJOUPPI



## INORGANIC PREPARATION METHODS

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**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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## General Chemistry

**ALS Environmental—Rochester Laboratory**

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**ALS Group USA, Corp.**  
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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS005  
**Lab Code:** R1807070-001

**Service Request:** R1807070  
**Date Collected:** 07/24/18 10:45  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

**Inorganic Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Date Extracted</b>	<b>Q</b>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	<b>14.8</b>	mg/L	2.0	1	08/06/18 14:44	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	<b>0.0089</b>	mg/L	0.0050	1	08/08/18 20:20	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	<b>7.0</b>	mg/L	1.0	1	08/06/18 19:08	NA	
Chlorophyll A	SM20 10200 H	<b>139</b>	ug/L	8.0	20	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	<b>100</b>	ColorUnits	5.0	5	07/26/18 11:45	NA	*
Nitrate+Nitrite as Nitrogen	353.2	0.0020 U	mg/L	0.0020	1	08/17/18 12:50	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	<b>2.95</b>	mg/L	0.10	1	08/10/18 12:19	08/07/18	
pH of Color Analysis	SM 2120 B-2001(2011)	<b>8.00</b>	pH Units	-	5	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	<b>0.48</b>	mg/L	0.10	20	08/15/18 19:23	08/10/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS005 Diss  
**Lab Code:** R1807070-002

**Service Request:** R1807070  
**Date Collected:** 07/24/18 10:45  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.319	mg/L	0.050	10	08/06/18 19:11	08/01/18	

ALS Group USA, Corp.  
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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS021  
**Lab Code:** R1807070-003

**Service Request:** R1807070  
**Date Collected:** 07/24/18 12:00  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	91.6	mg/L	2.0	1	08/06/18 14:58	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0066	mg/L	0.0050	1	08/08/18 20:36	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	5.4	mg/L	1.0	1	08/06/18 19:29	NA	
Chlorophyll A	SM20 10200 H	235	ug/L	5.3	20	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	170	ColorUnits	10	10	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.303	mg/L	0.0020	1	08/17/18 12:57	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.79	mg/L	0.10	1	08/10/18 12:20	08/07/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.81	pH Units	-	10	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	0.062	mg/L	0.010	2	08/15/18 19:24	08/10/18	

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dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS021 Diss  
**Lab Code:** R1807070-004

**Service Request:** R1807070  
**Date Collected:** 07/24/18 12:00  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0079	mg/L	0.0050	1	08/06/18 18:43	08/01/18	



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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS035  
**Lab Code:** R1807070-005

**Service Request:** R1807070  
**Date Collected:** 07/24/18 13:00  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	119	mg/L	2.0	1	08/06/18 15:04	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.088	mg/L	0.050	10	08/07/18 18:07	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	3.1	mg/L	1.0	1	08/06/18 19:50	NA	
Chlorophyll A	SM20 10200 H	40.0	ug/L	1.6	10	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	28.0	ColorUnits	1.0	1	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.736	mg/L	0.0020	1	08/17/18 12:58	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.29	mg/L	0.10	1	08/10/18 12:22	08/07/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.75	pH Units	-	1	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	0.0271	mg/L	0.0050	1	08/15/18 17:50	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS035 Diss  
**Lab Code:** R1807070-006

**Service Request:** R1807070  
**Date Collected:** 07/24/18 13:00  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

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	08/06/18 18:47	08/01/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS099  
**Lab Code:** R1807070-007

**Service Request:** R1807070  
**Date Collected:** 07/24/18 13:00  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	118	mg/L	2.0	1	08/06/18 15:10	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.087	mg/L	0.050	10	08/07/18 18:23	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	3.0	mg/L	1.0	1	08/06/18 22:37	NA	
Chlorophyll A	SM20 10200 H	39.7	ug/L	3.2	20	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	38.0	ColorUnits	1.0	1	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.735	mg/L	0.0020	1	08/17/18 12:59	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.47	mg/L	0.10	1	08/10/18 12:23	08/07/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.72	pH Units	-	1	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	0.0291	mg/L	0.0050	1	08/15/18 17:51	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS099 Diss  
**Lab Code:** R1807070-008

**Service Request:** R1807070  
**Date Collected:** 07/24/18 13:00  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0059	mg/L	0.0050	1	08/06/18 18:48	08/01/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS025  
**Lab Code:** R1807070-009

**Service Request:** R1807070  
**Date Collected:** 07/24/18 15:00  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	60.4	mg/L	2.0	1	08/06/18 15:16	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0102	mg/L	0.0050	1	08/08/18 21:08	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	11.5	mg/L	1.0	1	08/06/18 22:58	NA	
Chlorophyll A	SM20 10200 H	197	ug/L	5.3	20	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	160	ColorUnits	10	10	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020	U mg/L	0.0020	1	08/17/18 13:01	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	2.28	mg/L	0.10	1	08/10/18 12:23	08/07/18	
pH of Color Analysis	SM 2120 B-2001(2011)	9.17	pH Units	-	10	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	0.106	mg/L	0.010	2	08/15/18 19:27	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS025 Diss  
**Lab Code:** R1807070-010

**Service Request:** R1807070  
**Date Collected:** 07/24/18 15:00  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0161	mg/L	0.0050	1	08/06/18 18:51	08/01/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
**Sample Name:** 18LIS098  
**Lab Code:** R1807070-011

**Service Request:** R1807070  
**Date Collected:** 07/24/18 15:30  
**Date Received:** 07/26/18 09:25  
**Basis:** NA

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	08/06/18 15:18	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050 U	mg/L	0.0050	1	08/08/18 21:24	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	<b>1.6</b>	mg/L	1.0	1	08/06/18 23:19	NA	
Chlorophyll A	SM20 10200 H	<b>0.70</b>	ug/L	0.16	1	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	<b>12.0</b>	ColorUnits	1.0	1	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020 U	mg/L	0.0020	1	08/17/18 13:02	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	<b>0.10</b>	mg/L	0.10	1	08/10/18 12:15	08/07/18	
pH of Color Analysis	SM 2120 B-2001(2011)	<b>7.32</b>	pH Units	-	1	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	0.0050 U	mg/L	0.0050	1	08/15/18 17:53	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS098 Diss  
**Lab Code:** R1807070-012

**Service Request:** R1807070  
**Date Collected:** 07/24/18 15:30  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

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	08/06/18 18:52	08/01/18	



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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS013  
**Lab Code:** R1807070-013

**Service Request:** R1807070  
**Date Collected:** 07/25/18 09:15  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	80.4	mg/L	2.0	1	08/06/18 15:23	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0247	mg/L	0.0050	1	08/08/18 21:40	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	4.7	mg/L	1.0	1	08/06/18 23:40	NA	
Chlorophyll A	SM20 10200 H	88.0	ug/L	3.2	20	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	105	ColorUnits	5.0	5	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.252	mg/L	0.0020	1	08/17/18 13:04	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.92	mg/L	0.10	1	08/10/18 12:16	08/07/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.56	pH Units	-	5	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	0.0868	mg/L	0.0050	1	08/15/18 17:55	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS013 Diss  
**Lab Code:** R1807070-014

**Service Request:** R1807070  
**Date Collected:** 07/25/18 09:15  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0192	mg/L	0.0050	1	08/06/18 18:53	08/01/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
**Sample Name:** 18LIS037  
**Lab Code:** R1807070-015

**Service Request:** R1807070  
**Date Collected:** 07/25/18 10:45  
**Date Received:** 07/26/18 09:25  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	29.6	mg/L	2.0	1	08/06/18 15:28	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0108	mg/L	0.0050	1	08/08/18 17:23	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	6.4	mg/L	1.0	1	08/07/18 01:04	NA	
Chlorophyll A	SM20 10200 H	6.99	ug/L	0.80	10	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	33.0	ColorUnits	1.0	1	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020	mg/L	0.0020	1	08/17/18 13:05	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.68	mg/L	0.10	1	08/14/18 15:00	08/13/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.61	pH Units	-	1	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	0.0198	mg/L	0.0050	1	08/15/18 17:56	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS037 Diss  
**Lab Code:** R1807070-016

**Service Request:** R1807070  
**Date Collected:** 07/25/18 10:45  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0091	mg/L	0.0050	1	08/06/18 18:54	08/01/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS059  
**Lab Code:** R1807070-017

**Service Request:** R1807070  
**Date Collected:** 07/25/18 12:15  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	56.4	mg/L	2.0	1	08/06/18 15:33	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0154	mg/L	0.0050	1	08/08/18 17:39	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	8.2	mg/L	1.0	1	08/07/18 01:24	NA	
Chlorophyll A	SM20 10200 H	80.6	ug/L	5.3	20	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	210	ColorUnits	10	10	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0095	mg/L	0.0020	1	08/17/18 13:06	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.53	mg/L	0.10	1	08/14/18 15:02	08/13/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.58	pH Units	-	10	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	0.172	mg/L	0.025	5	08/15/18 19:29	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS059 Diss  
**Lab Code:** R1807070-018

**Service Request:** R1807070  
**Date Collected:** 07/25/18 12:15  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0778	mg/L	0.0050	1	08/15/18 16:58	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS001  
**Lab Code:** R1807070-019

**Service Request:** R1807070  
**Date Collected:** 07/25/18 14:30  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	108	mg/L	2.0	1	08/06/18 15:40	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0092	mg/L	0.0050	1	08/08/18 17:56	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	4.8	mg/L	1.0	1	08/07/18 01:45	NA	
Chlorophyll A	SM20 10200 H	75.2	ug/L	3.2	20	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	85.0	ColorUnits	5.0	5	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.440	mg/L	0.0020	1	08/17/18 13:08	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.72	mg/L	0.10	1	08/14/18 15:03	08/13/18	
pH of Color Analysis	SM 2120 B-2001(2011)	8.37	pH Units	-	5	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	0.0848	mg/L	0.0050	1	08/15/18 17:58	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS001 Diss  
**Lab Code:** R1807070-020

**Service Request:** R1807070  
**Date Collected:** 07/25/18 14:30  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0475	mg/L	0.0050	1	08/15/18 16:59	08/10/18	



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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS038  
**Lab Code:** R1807070-021

**Service Request:** R1807070  
**Date Collected:** 07/25/18 11:00  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0079	mg/L	0.0050	1	08/08/18 18:12	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	6.2	mg/L	1.0	1	08/07/18 02:06	NA	
Color, True	SM 2120 B-2001(2011)	43.0	ColorUnits	1.0	1	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020 U	mg/L	0.0020	1	08/17/18 13:09	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.56	mg/L	0.10	1	08/14/18 15:03	08/13/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.59	pH Units	-	1	07/28/18 08:40	NA	*
Phosphorus, Total	365.1	0.0260	mg/L	0.0050	1	08/15/18 18:01	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LIS038 Diss  
**Lab Code:** R1807070-022

**Service Request:** R1807070  
**Date Collected:** 07/25/18 11:00  
**Date Received:** 07/26/18 09:25  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0076	mg/L	0.0050	1	08/15/18 17:00	08/10/18	



## QC Summary Forms

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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## General Chemistry

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** R1807070-MB1

**Service Request:** R1807070  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

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	08/06/18 13:48	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050 U	mg/L	0.0050	1	08/07/18 13:51	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	08/06/18 11:47	NA	
Chlorophyll A	SM20 10200 H	0.40 U	ug/L	0.40	1	08/14/18 11:00	NA	
Color, True	SM 2120 B-2001(2011)	1.0	ColorUnits	1.0	1	07/26/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020 U	mg/L	0.0020	1	08/17/18 12:39	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.10 U	mg/L	0.10	1	08/10/18 12:06	08/07/18	
Phosphorus, Dissolved	365.1	0.0050 U	mg/L	0.0050	1	08/06/18 18:33	08/01/18	
Phosphorus, Total	365.1	0.0050 U	mg/L	0.0050	1	08/15/18 17:29	08/10/18	

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Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** R1807070-MB2

**Service Request:** R1807070  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

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	08/08/18 16:51	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	08/07/18 00:22	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.10 U	mg/L	0.10	1	08/14/18 14:51	08/13/18	
Phosphorus, Dissolved	365.1	0.0050 U	mg/L	0.0050	1	08/15/18 16:54	08/10/18	

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QA/QC Report

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

**Service Request:** R1807070  
**Date Collected:** 07/24/18  
**Date Received:** 07/26/18  
**Date Analyzed:** 08/17/18

**Duplicate Matrix Spike Summary**  
**Nitrate+Nitrite as Nitrogen**

**Sample Name:** 18LIS005 **Units:** mg/L  
**Lab Code:** R1807070-001 **Basis:** NA  
**Analysis Method:** 353.2

Analyte Name	Matrix Spike R1807070-001MS				Duplicate Matrix Spike R1807070-001DMS					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Nitrate+Nitrite as Nitrogen	0.0020 U	0.492	0.500	98	0.491	0.500	98	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.

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QA/QC Report

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

**Service Request:** R1807070  
**Date Collected:** 07/24/18  
**Date Received:** 07/26/18  
**Date Analyzed:** 08/15/18  
**Date Extracted:** 08/10/18

**Duplicate Matrix Spike Summary**  
**Phosphorus, Total**

**Sample Name:** 18LIS021  
**Lab Code:** R1807070-003  
**Analysis Method:** 365.1  
**Prep Method:** Method

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

Analyte Name	Sample Result	Result	Matrix Spike		Result	Duplicate Matrix Spike		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Phosphorus, Total	0.062	0.086	0.025	96	0.126	0.025	258 *	75-125	38*	20

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QA/QC Report

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

**Service Request:** R1807070  
**Date Collected:** 07/24/18  
**Date Received:** 07/26/18  
**Date Analyzed:** 08/6/18  
**Date Extracted:** 08/1/18

**Duplicate Matrix Spike Summary**  
**Phosphorus, Dissolved**

**Sample Name:** 18LIS021 Diss  
**Lab Code:** R1807070-004  
**Analysis Method:** 365.1  
**Prep Method:** Method

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

Analyte Name	Sample Result	Result	Matrix Spike		Duplicate Matrix Spike		% Rec	Limits	RPD	RPD Limit
			Spike Amount	% Rec	Result	Spike Amount	% Rec			
Phosphorus, Dissolved	0.0079	0.0309	0.0250	92	0.0308	0.0250	91	75-125	<1	20

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QA/QC Report

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

**Service Request:** R1807070  
**Date Collected:** 07/24/18  
**Date Received:** 07/26/18  
**Date Analyzed:** 08/10/18  
**Date Extracted:** 08/7/18

**Duplicate Matrix Spike Summary**  
**Nitrogen, Total Kjeldahl (TKN)**

**Sample Name:** 18LIS025  
**Lab Code:** R1807070-009  
**Analysis Method:** 351.2  
**Prep Method:** Method

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

Analyte Name	Sample Result	Matrix Spike R1807070-009MS			Duplicate Matrix Spike R1807070-009DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Nitrogen, Total Kjeldahl (TKN)	2.28	4.62	2.50	94	4.58	2.50	92	75-125	<1	20

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QA/QC Report

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

**Service Request:** R1807070  
**Date Collected:** 07/25/18  
**Date Received:** 07/26/18  
**Date Analyzed:** 08/14/18  
**Date Extracted:** 08/13/18

**Duplicate Matrix Spike Summary**  
**Nitrogen, Total Kjeldahl (TKN)**

**Sample Name:** 18LIS037  
**Lab Code:** R1807070-015  
**Analysis Method:** 351.2  
**Prep Method:** Method

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

Analyte Name	Sample Result	Matrix Spike R1807070-015MS			Duplicate Matrix Spike R1807070-015DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Nitrogen, Total Kjeldahl (TKN)	0.68	2.89	2.50	89	2.95	2.50	91	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.

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QA/QC Report

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

**Service Request:** R1807070  
**Date Collected:** 07/25/18  
**Date Received:** 07/26/18  
**Date Analyzed:** 08/6/18  
**Date Extracted:** 08/1/18

**Duplicate Matrix Spike Summary**  
**Phosphorus, Dissolved**

**Sample Name:** 18LIS037 Diss  
**Lab Code:** R1807070-016  
**Analysis Method:** 365.1  
**Prep Method:** Method

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

Analyte Name	Sample Result	Result	Matrix Spike		Duplicate Matrix Spike		% Rec	Limits	RPD	RPD Limit
			Spike Amount	% Rec	Result	Spike Amount	% Rec			
Phosphorus, Dissolved	0.0091	0.0310	0.0250	88	0.0325	0.0250	94	75-125	5	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.

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QA/QC Report

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

**Service Request:** R1807070  
**Date Collected:** 07/25/18  
**Date Received:** 07/26/18  
**Date Analyzed:** 08/17/18

**Duplicate Matrix Spike Summary**  
**Nitrate+Nitrite as Nitrogen**

**Sample Name:** 18LIS038  
**Lab Code:** R1807070-021  
**Analysis Method:** 353.2

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

Analyte Name	Sample Result	Matrix Spike R1807070-021MS			Duplicate Matrix Spike R1807070-021DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Nitrate+Nitrite as Nitrogen	0.0020 U	0.484	0.500	97	0.485	0.500	97	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.

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QA/QC Report

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

**Service Request:** R1807070  
**Date Collected:** 07/25/18  
**Date Received:** 07/26/18  
**Date Analyzed:** 08/15/18  
**Date Extracted:** 08/10/18

**Duplicate Matrix Spike Summary**  
**Phosphorus, Dissolved**

**Sample Name:** 18LIS038 Diss  
**Lab Code:** R1807070-022  
**Analysis Method:** 365.1  
**Prep Method:** Method

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

Analyte Name	Sample Result	Result	Matrix Spike		Duplicate Matrix Spike		% Rec	Limits	RPD	RPD Limit
			Spike Amount	% Rec	Result	Spike Amount	% Rec			
Phosphorus, Dissolved	0.0076	0.0307	0.0250	92	0.0303	0.0250	91	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.

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QA/QC Report

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

**Service Request:** R1807070  
**Date Collected:** 07/25/18  
**Date Received:** 07/26/18  
**Date Analyzed:** 07/26/18

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** 18LIS013  
**Lab Code:** R1807070-013

**Units:** ColorUnits  
**Basis:** NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample R1807070-013DUP Result	Average	RPD	RPD Limit
Color, True	SM 2120 B-2001(2011)	5.0	105	105	105	<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.

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## QA/QC Report

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

**Service Request:** R1807070  
**Date Collected:** 07/25/18  
**Date Received:** 07/26/18  
**Date Analyzed:** 07/28/18

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** 18LIS013  
**Lab Code:** R1807070-013

**Units:** pH Units  
**Basis:** NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample R1807070-013DUP Result	Average	RPD	RPD Limit
pH of Color Analysis	SM 2120 B-2001(2011)	-	7.56	7.56	7.56	<1	20

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

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

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QA/QC Report

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

**Service Request:** R1807070  
**Date Analyzed:** 08/06/18 - 08/17/18

**Lab Control Sample Summary**  
**General Chemistry Parameters**

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

**Lab Control Sample**  
R1807070-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO <sub>3</sub>	SM 2320 B-1997(2011)	18.0	20.0	90	70-130
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.489	0.500	98	70-130
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.68	10.0	97	70-130
Nitrate+Nitrite as Nitrogen	353.2	0.503	0.500	101	70-130
Nitrogen, Total Kjeldahl (TKN)	351.2	2.45	2.50	98	70-130
Phosphorus, Dissolved	365.1	0.0242	0.0250	97	70-130
Phosphorus, Total	365.1	0.0243	0.0250	97	70-130

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QA/QC Report

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

**Service Request:** R1807070  
**Date Analyzed:** 08/07/18 - 08/15/18

**Lab Control Sample Summary**  
**General Chemistry Parameters**

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

**Lab Control Sample**  
R1807070-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.486	0.500	97	70-130
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.3	10.0	103	70-130
Nitrogen, Total Kjeldahl (TKN)	351.2	2.30	2.50	92	70-130
Phosphorus, Dissolved	365.1	0.0233	0.0250	93	70-130