



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5 CHICAGO REGIONAL LABORATORY  
536 SOUTH CLARK STREET  
CHICAGO, ILLINOIS 60605

**Date:** 6/4/2018  
**Subject:** Review of Region 5 Data for Central Sands  
**To:** Water Division, WECA Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604  
**From:** Francis Awanya, Chemist  
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with the EPA QA/G-8 *Guidance on Environmental Data Verification and Data Validation* and the U.S. EPA Region 5 RMD QMP, CRL performs data verification on all the data generated internally. CRL does not perform data validation or quality assessment procedures.

This report was reviewed and the information provided herein accurately represents the analysis performed.

*Francis A. Awanya*

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*Please contact the analyst with any technical report issues, Robert Thompson at (312)-353-9078 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.*

**Attached are Results for: Central Sands**

**Analyses included in this report:**

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TOC

Report Name: 1805005,1805007 TOC FINAL Jun 04 18 1529



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, WECA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Central Sands  
Project Number: CB022018  
Project Manager: Cheryl Burdett

**Reported:**  
Jun-04-18 15:29

**Accredited Analyses included in this Report**



**Method:** *SM 5310 B in Water*

**Analysis:** *TOC*

**Analyte**

**Certifications**

Total Organic Carbon

ISO/IEC 17025:2005

**Analytes not listed above are not accredited by ANAB.**



## Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605  
Phone: (312) 353-8370 Fax: (312) 886-2591

Water Division, WECA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Central Sands  
Project Number: CB022018  
Project Manager: Cheryl Burdett

**Reported:**  
Jun-04-18 15:29

### Analysis Case Narrative

#### General Information

Ninety-eight (98) water samples collected for the project were received at the Chicago Regional Laboratory (CRL) on May 2 and May 4, 2018. The samples were logged in the CRL LIMS under Work Order Number 1805005 and 1805007. Total Organic Carbon (TOC) analysis was assigned to those samples. The samples were analyzed for TOC in water using Standard Operating Procedure (SOP) CRL Document # AIG021D Version # 5 (Based on SM 5310 B (APHA, AWWA, WEF)). The designated analyst for the sample is Francis Awanya. Francis can be reached at 312-886-3682. Other pertinent information and dates are provided in the final analysis report.

The following samples were not preserved to pH < 2 units with sulfuric acid and were flagged "J"; The identification of the analyte is acceptable; the reported value is an estimate. The affected samples are 1805005-12 (Sample name: B1a), 1805005-29 (Sample name: C6b), 1805005-41 (Sample name: C11a), 1805005-45 (Sample name: C13a), 1805005-48 (Sample name: D1b), and 1805005-49 (Sample name: D2a).

All supporting data are archived with Work Order Number 1805005.

#### Sample Analysis and Results

Reagents and standards were prepared using Version # 4 of Standard Operating Procedure (SOP) AIG021D (Based on SM 5310B (APHA, AWWA, WEF)). Analysis was completed using Version # 5 of the SOP. There are no differences between the two procedures as Version # 5 reflects revision based on the method update rule which resulted in no changes. There are no differences between the two procedures.

The data reported here in met the requirements of Standard Operating Procedure (SOP) AIG021D (Based on SM 5310B (APHA, AWWA, WEF)) and any laboratory specifications contained in the sampling QAPP "*FINAL\_2018 GW Sampling Plan4\_27\_2018.pdf*". Exceptions are discussed in the Quality Control (QC) section.

#### Quality Control

All required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the CRL's QC limits with the following exceptions.

Matrix spike: The matrix spike recoveries of 77.9% and 36.1% obtained for samples 1805005-05 (Sample



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**Reported:**  
Jun-04-18 15:29

name: A3a) and 1805005-41 (Sample name: C11a) exceeded the limit of 85.1 to 143%. This may indicate low bias due to matrix interference. The blank and four spike recoveries result were within the limits. TOC result for sample 1805005-05 is flagged J: The identification of the analyte is acceptable; the reported value is an estimate. No additional flag was applied to the result for sample 1805005-41 on this basis. The sample result is already flagged "J" for under preservation.

Determination Limit: TOC concentrations of 11 mg/L obtained for sample 1805005-44 (Sample name: C12b) marginally exceeded the upper determination limit of 10 mg/L. The result is flagged J: The identification of the analyte is acceptable; the reported value is an estimate. Analysis could not be repeated within the holding time. The impact is insignificant as it is in the range of 10% of the top calibration standard.



# Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

## WORK ORDER

Printed: 5/3/2018 3:33:25PM

**1805005**

## US EPA Region 5 Chicago Regional Laboratory

**Client:** Water Division, WECA Region 5  
**Project:** Central Sands

**Project Manager:** Angela Ockrassa Davis  
**Project Number:** [none]

### Report To:

Cheryl Burdett  
Water Division, WECA Region 5

77 West Jackson Boulevard  
Chicago, IL 60604

Phone: (312) 886-1463  
Fax: (312) 886-2001

**Date Due:** Jun-04-18 15:00 (32 day TAT)  
**Received By:** Colin Breslin  
**Logged In By:** Robert Snyder

**Date Received:** May-02-18 09:55  
**Date Logged In:** May-03-18 09:30

### Samples Received at:

Sample tags/labels **Yes**  
Seals Intact **Yes**  
Received on ice **Yes**  
Paperwork Included **Yes**

### Work Order Comments:

Anions: Chloride and nitrate as NO3  
Full List metals

**Sample ID:** [1805005-01](#) **Sampled:** [Apr-30-18 07:19](#) **Matrix:** [Water](#)

**Sample Name:** [A1a](#) **Sample Location/Comments:** [1st Street](#)

### Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 07:19	pH = 2
Anions by IC	28	May-28-18 07:19	pH = 7
Metals ICP-AES (w)	180	Oct-27-18 07:19	pH = 3
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 07:19	pH = 2
Solids, TDS	7	May-07-18 07:19	pH = 7
TKN DA	28	May-28-18 07:19	pH = 2
TOC	28	May-28-18 07:19	pH = 2
Total Phosphorus DA	28	May-28-18 07:19	pH = 2

**Sample ID:** [1805005-02](#) **Sampled:** [Apr-30-18 07:32](#) **Matrix:** [Water](#)

**Sample Name:** [A1b](#) **Sample Location/Comments:** [1st Street](#)

### Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 07:32	pH = 2
Anions by IC	28	May-28-18 07:32	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 07:32	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 07:32	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-02](#) Sampled: [Apr-30-18 07:32](#) Matrix: [Water](#)

Sample Name: [A1b](#)

Sample Location/Comments: [1st Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Solids, TDS	7	May-07-18 07:32	pH = 5
TKN DA	28	May-28-18 07:32	pH = 2
TOC	28	May-28-18 07:32	pH = 2
Total Phosphorus DA	28	May-28-18 07:32	pH = 2

Sample ID: [1805005-03](#) Sampled: [Apr-30-18 08:15](#) Matrix: [Water](#)

Sample Name: [A2a](#)

Sample Location/Comments: [22nd Avenue North](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 08:15	pH = 2
Anions by IC	28	May-28-18 08:15	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 08:15	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 08:15	pH = 2
Solids, TDS	7	May-07-18 08:15	pH = 6
TKN DA	28	May-28-18 08:15	pH = 2
TOC	28	May-28-18 08:15	pH = 2
Total Phosphorus DA	28	May-28-18 08:15	pH = 2

Sample ID: [1805005-04](#) Sampled: [Apr-30-18 08:24](#) Matrix: [Water](#)

Sample Name: [A2b](#)

Sample Location/Comments: [22nd Avenue North](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 08:24	pH = 2
Anions by IC	28	May-28-18 08:24	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 08:24	pH = 5
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 08:24	pH = 2
Solids, TDS	7	May-07-18 08:24	pH = 6
TKN DA	28	May-28-18 08:24	pH = 2
TOC	28	May-28-18 08:24	pH = 2
Total Phosphorus DA	28	May-28-18 08:24	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-05](#) Sampled: [Apr-30-18 09:06](#) Matrix: [Water](#) [QC Source Sample MS/MSD](#)

Sample Name: [A3a](#) Sample Location/Comments: [2nd Street](#)

Sample Comments: [MS/MSD](#)

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:06	pH = 2
Anions by IC	28	May-28-18 09:06	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 09:06	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:06	pH = 2
Solids, TDS	7	May-07-18 09:06	pH = 6
TKN DA	28	May-28-18 09:06	pH = 2
TOC	28	May-28-18 09:06	pH = 2
Total Phosphorus DA	28	May-28-18 09:06	pH = 2

Sample ID: [1805005-06](#) Sampled: [Apr-30-18 09:14](#) Matrix: [Water](#)

Sample Name: [A3b](#) Sample Location/Comments: [2nd Street](#)

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:14	pH = 2
Anions by IC	28	May-28-18 09:14	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 09:14	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:14	pH = 2
Solids, TDS	7	May-07-18 09:14	pH = 6
TKN DA	28	May-28-18 09:14	pH = 2
TOC	28	May-28-18 09:14	pH = 2
Total Phosphorus DA	28	May-28-18 09:14	pH = 2

Sample ID: [1805005-07](#) Sampled: [Apr-30-18 09:38](#) Matrix: [Water](#)

Sample Name: [A4 Equip](#) Sample Location/Comments: [Cranberry Rock Road](#)

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:38	pH = 2
Anions by IC	28	May-28-18 09:38	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 09:38	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:38	pH = 2
Solids, TDS	7	May-07-18 09:38	pH = 5
TKN DA	28	May-28-18 09:38	pH = 2
TOC	28	May-28-18 09:38	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-07](#) Sampled: [Apr-30-18 09:38](#) Matrix: [Water](#)

Sample Name: [A4 Equip](#) Sample Location/Comments: [Cranberry Rock Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-28-18 09:38	pH = 2

Sample ID: [1805005-08](#) Sampled: [Apr-30-18 09:06](#) Matrix: [Water](#)

Sample Name: [A3a \(Dup\)](#) Sample Location/Comments: [2nd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:06	pH = 2
Anions by IC	28	May-28-18 09:06	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 09:06	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:06	pH = 2
Solids, TDS	7	May-07-18 09:06	pH = 6
TKN DA	28	May-28-18 09:06	pH = 2
TOC	28	May-28-18 09:06	pH = 2
Total Phosphorus DA	28	May-28-18 09:06	pH = 2

Sample ID: [1805005-09](#) Sampled: [Apr-30-18 09:49](#) Matrix: [Water](#)

Sample Name: [FB1](#) Sample Location/Comments: [Cranberry Rock Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:49	pH = 2
Anions by IC	28	May-28-18 09:49	pH = 4
Metals ICP-AES (w)	180	Oct-27-18 09:49	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:49	pH = 2
Solids, TDS	7	May-07-18 09:49	pH = 4
TKN DA	28	May-28-18 09:49	pH = 2
TOC	28	May-28-18 09:49	pH = 2
Total Phosphorus DA	28	May-28-18 09:49	pH = 2

Sample ID: [1805005-10](#) Sampled: [Apr-30-18 09:58](#) Matrix: [Water](#)

Sample Name: [A4a](#) Sample Location/Comments: [Cranberry Rock Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:58	pH = 2
Anions by IC	28	May-28-18 09:58	pH = 6



1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-10](#) Sampled: [Apr-30-18 09:58](#) Matrix: [Water](#)

Sample Name: [A4a](#) Sample Location/Comments: [Cranberry Rock Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-27-18 09:58	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:58	pH = 2
Solids, TDS	7	May-07-18 09:58	pH = 6
TKN DA	28	May-28-18 09:58	pH = 2
TOC	28	May-28-18 09:58	pH = 2
Total Phosphorus DA	28	May-28-18 09:58	pH = 2

Sample ID: [1805005-11](#) Sampled: [Apr-30-18 10:09](#) Matrix: [Water](#)

Sample Name: [A4b](#) Sample Location/Comments: [Cranberry Rock Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 10:09	pH = 2
Anions by IC	28	May-28-18 10:09	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 10:09	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 10:09	pH = 2
Solids, TDS	7	May-07-18 10:09	pH = 5
TKN DA	28	May-28-18 10:09	pH = 2
TOC	28	May-28-18 10:09	pH = 2
Total Phosphorus DA	28	May-28-18 10:09	pH = 2

Sample ID: [1805005-12](#) Sampled: [Apr-30-18 10:51](#) Matrix: [Water](#)

Sample Name: [B1a](#) Sample Location/Comments: [20th Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 10:51	pH = 3
Anions by IC	28	May-28-18 10:51	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 10:51	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 10:51	pH = 3
Solids, TDS	7	May-07-18 10:51	pH = 5
TKN DA	28	May-28-18 10:51	pH = 3
TOC	28	May-28-18 10:51	pH = 3
Total Phosphorus DA	28	May-28-18 10:51	pH = 3

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-13](#) Sampled: [Apr-30-18 10:58](#) Matrix: [Water](#)

Sample Name: [B1b](#) Sample Location/Comments: [20th Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 10:58	pH = 2
Anions by IC	28	May-28-18 10:58	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 10:58	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 10:58	pH = 2
Solids, TDS	7	May-07-18 10:58	pH = 5
TKN DA	28	May-28-18 10:58	pH = 2
TOC	28	May-28-18 10:58	pH = 2
Total Phosphorus DA	28	May-28-18 10:58	pH = 2

Sample ID: [1805005-14](#) Sampled: [Apr-30-18 11:40](#) Matrix: [Water](#)

Sample Name: [B2a](#) Sample Location/Comments: [3rd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 11:40	pH = 2
Anions by IC	28	May-28-18 11:40	pH = 7
Metals ICP-AES (w)	180	Oct-27-18 11:40	pH = 4
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 11:40	pH = 2
Solids, TDS	7	May-07-18 11:40	pH = 7
TKN DA	28	May-28-18 11:40	pH = 2
TOC	28	May-28-18 11:40	pH = 2
Total Phosphorus DA	28	May-28-18 11:40	pH = 2

Sample ID: [1805005-15](#) Sampled: [Apr-30-18 11:48](#) Matrix: [Water](#)

Sample Name: [B2b](#) Sample Location/Comments: [3rd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 11:48	pH = 2
Anions by IC	28	May-28-18 11:48	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 11:48	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 11:48	pH = 2
Solids, TDS	7	May-07-18 11:48	pH = 5
TKN DA	28	May-28-18 11:48	pH = 2
TOC	28	May-28-18 11:48	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-15](#) Sampled: [Apr-30-18 11:48](#) Matrix: [Water](#)

Sample Name: [B2b](#)

Sample Location/Comments: [3rd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-28-18 11:48	pH = 2

Sample ID: [1805005-16](#) Sampled: [Apr-30-18 12:29](#) Matrix: [Water](#)

Sample Name: [B3a](#)

Sample Location/Comments: [3rd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 12:29	pH = 2
Anions by IC	28	May-28-18 12:29	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 12:29	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 12:29	pH = 2
Solids, TDS	7	May-07-18 12:29	pH = 6
TKN DA	28	May-28-18 12:29	pH = 2
TOC	28	May-28-18 12:29	pH = 2
Total Phosphorus DA	28	May-28-18 12:29	pH = 2

Sample ID: [1805005-17](#) Sampled: [Apr-30-18 12:36](#) Matrix: [Water](#)

Sample Name: [B3b](#)

Sample Location/Comments: [3rd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 12:36	pH = 2
Anions by IC	28	May-28-18 12:36	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 12:36	pH = 3
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 12:36	pH = 2
Solids, TDS	7	May-07-18 12:36	pH = 5
TKN DA	28	May-28-18 12:36	pH = 2
TOC	28	May-28-18 12:36	pH = 2
Total Phosphorus DA	28	May-28-18 12:36	pH = 2

Sample ID: [1805005-18](#) Sampled: [Apr-30-18 13:10](#) Matrix: [Water](#)

Sample Name: [B4a](#)

Sample Location/Comments: [3rd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 13:10	pH = 2
Anions by IC	28	May-28-18 13:10	pH = 5

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-18](#) Sampled: [Apr-30-18 13:10](#) Matrix: [Water](#)

Sample Name: [B4a](#) Sample Location/Comments: [3rd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-27-18 13:10	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 13:10	pH = 2
Solids, TDS	7	May-07-18 13:10	pH = 5
TKN DA	28	May-28-18 13:10	pH = 2
TOC	28	May-28-18 13:10	pH = 2
Total Phosphorus DA	28	May-28-18 13:10	pH = 2

Sample ID: [1805005-19](#) Sampled: [Apr-30-18 13:41](#) Matrix: [Water](#)

Sample Name: [B4b](#) Sample Location/Comments: [3rd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 13:41	pH = 2
Anions by IC	28	May-28-18 13:41	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 13:41	pH = 4
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 13:41	pH = 2
Solids, TDS	7	May-07-18 13:41	pH = 5
TKN DA	28	May-28-18 13:41	pH = 2
TOC	28	May-28-18 13:41	pH = 2
Total Phosphorus DA	28	May-28-18 13:41	pH = 2

Sample ID: [1805005-20](#) Sampled: [Apr-30-18 15:02](#) Matrix: [Water](#)

Sample Name: [C1a](#) Sample Location/Comments: [2nd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 15:02	pH = 2
Anions by IC	28	May-28-18 15:02	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 15:02	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 15:02	pH = 2
Solids, TDS	7	May-07-18 15:02	pH = 5
TKN DA	28	May-28-18 15:02	pH = 2
TOC	28	May-28-18 15:02	pH = 2
Total Phosphorus DA	28	May-28-18 15:02	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-21](#) Sampled: [Apr-30-18 15:27](#) Matrix: [Water](#)

Sample Name: [C1b](#) Sample Location/Comments: [2nd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 15:27	pH = 2
Anions by IC	28	May-28-18 15:27	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 15:27	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 15:27	pH = 2
Solids, TDS	7	May-07-18 15:27	pH = 5
TKN DA	28	May-28-18 15:27	pH = 2
TOC	28	May-28-18 15:27	pH = 2
Total Phosphorus DA	28	May-28-18 15:27	pH = 2

Sample ID: [1805005-22](#) Sampled: [Apr-30-18 16:06](#) Matrix: [Water](#)

Sample Name: [C2a](#) Sample Location/Comments: [Nelson Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 16:06	pH = 2
Anions by IC	28	May-28-18 16:06	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 16:06	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 16:06	pH = 2
Solids, TDS	7	May-07-18 16:06	pH = 5
TKN DA	28	May-28-18 16:06	pH = 2
TOC	28	May-28-18 16:06	pH = 2
Total Phosphorus DA	28	May-28-18 16:06	pH = 2

Sample ID: [1805005-23](#) Sampled: [Apr-30-18 16:14](#) Matrix: [Water](#)

Sample Name: [C2b](#) Sample Location/Comments: [Nelson Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 16:14	pH = 2
Anions by IC	28	May-28-18 16:14	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 16:14	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 16:14	pH = 2
Solids, TDS	7	May-07-18 16:14	pH = 5
TKN DA	28	May-28-18 16:14	pH = 2
TOC	28	May-28-18 16:14	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-23](#) Sampled: [Apr-30-18 16:14](#) Matrix: [Water](#)

Sample Name: [C2b](#) Sample Location/Comments: [Nelson Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-28-18 16:14	pH = 2

Sample ID: [1805005-24](#) Sampled: [Apr-30-18 14:16](#) Matrix: [Water](#)

Sample Name: [C3a](#) Sample Location/Comments: [3rd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 14:16	pH = 2
Anions by IC	28	May-28-18 14:16	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 14:16	pH = 3
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 14:16	pH = 2
Solids, TDS	7	May-07-18 14:16	pH = 5
TKN DA	28	May-28-18 14:16	pH = 2
TOC	28	May-28-18 14:16	pH = 2
Total Phosphorus DA	28	May-28-18 14:16	pH = 2

Sample ID: [1805005-25](#) Sampled: [Apr-30-18 14:26](#) Matrix: [Water](#)

Sample Name: [C3b](#) Sample Location/Comments: [3rd Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 14:26	pH = 2
Anions by IC	28	May-28-18 14:26	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 14:26	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 14:26	pH = 2
Solids, TDS	7	May-07-18 14:26	pH = 5
TKN DA	28	May-28-18 14:26	pH = 2
TOC	28	May-28-18 14:26	pH = 2
Total Phosphorus DA	28	May-28-18 14:26	pH = 2

Sample ID: [1805005-26](#) Sampled: [May-01-18 06:29](#) Matrix: [Water](#)

Sample Name: [C5Aa](#) Sample Location/Comments: [CR G \(Nelson Road\)](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 06:29	pH = 2
Anions by IC	28	May-29-18 06:29	pH = 5

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-26](#) Sampled: [May-01-18 06:29](#) Matrix: [Water](#)

Sample Name: [C5Aa](#) Sample Location/Comments: [CR G \(Nelson Road\)](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-28-18 06:29	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 06:29	pH = 2
Solids, TDS	7	May-08-18 06:29	pH = 5
TKN DA	28	May-29-18 06:29	pH = 2
TOC	28	May-29-18 06:29	pH = 2
Total Phosphorus DA	28	May-29-18 06:29	pH = 2

Sample ID: [1805005-27](#) Sampled: [May-01-18 06:43](#) Matrix: [Water](#)

Sample Name: [C5Ab](#) Sample Location/Comments: [CR G \(Nelson Road\)](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 06:43	pH = 2
Anions by IC	28	May-29-18 06:43	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 06:43	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 06:43	pH = 2
Solids, TDS	7	May-08-18 06:43	pH = 5
TKN DA	28	May-29-18 06:43	pH = 2
TOC	28	May-29-18 06:43	pH = 2
Total Phosphorus DA	28	May-29-18 06:43	pH = 2

Sample ID: [1805005-28](#) Sampled: [May-01-18 07:06](#) Matrix: [Water](#)

Sample Name: [C6a](#) Sample Location/Comments: [CR G \(Nelson Road\)](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 07:06	pH = 2
Anions by IC	28	May-29-18 07:06	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 07:06	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 07:06	pH = 2
Solids, TDS	7	May-08-18 07:06	pH = 6
TKN DA	28	May-29-18 07:06	pH = 2
TOC	28	May-29-18 07:06	pH = 2
Total Phosphorus DA	28	May-29-18 07:06	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-29](#) Sampled: [May-01-18 07:15](#) Matrix: [Water](#)

Sample Name: [C6b](#) Sample Location/Comments: [CR G \(Nelson Road\)](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 07:15	pH = 3
Anions by IC	28	May-29-18 07:15	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 07:15	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 07:15	pH = 3
Solids, TDS	7	May-08-18 07:15	pH = 5
TKN DA	28	May-29-18 07:15	pH = 3
TOC	28	May-29-18 07:15	pH = 3
Total Phosphorus DA	28	May-29-18 07:15	pH = 3

Sample ID: [1805005-30](#) Sampled: [May-01-18 07:48](#) Matrix: [Water](#)

Sample Name: [C7a](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 07:48	pH = 2
Anions by IC	28	May-29-18 07:48	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 07:48	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 07:48	pH = 2
Solids, TDS	7	May-08-18 07:48	pH = 6
TKN DA	28	May-29-18 07:48	pH = 2
TOC	28	May-29-18 07:48	pH = 2
Total Phosphorus DA	28	May-29-18 07:48	pH = 2

Sample ID: [1805005-31](#) Sampled: [May-01-18 08:02](#) Matrix: [Water](#)

Sample Name: [C7b](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 08:02	pH = 2
Anions by IC	28	May-29-18 08:02	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 08:02	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 08:02	pH = 2
Solids, TDS	7	May-08-18 08:02	pH = 5
TKN DA	28	May-29-18 08:02	pH = 2
TOC	28	May-29-18 08:02	pH = 2



1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-31](#) Sampled: [May-01-18 08:02](#) Matrix: [Water](#)

Sample Name: [C7b](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-29-18 08:02	pH = 2

Sample ID: [1805005-32](#) Sampled: [May-01-18 07:39](#) Matrix: [Water](#)

Sample Name: [FB2](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 07:39	pH = 2
Anions by IC	28	May-29-18 07:39	pH = 4
Metals ICP-AES (w)	180	Oct-28-18 07:39	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 07:39	pH = 2
Solids, TDS	7	May-08-18 07:39	pH = 4
TKN DA	28	May-29-18 07:39	pH = 2
TOC	28	May-29-18 07:39	pH = 2
Total Phosphorus DA	28	May-29-18 07:39	pH = 2

Sample ID: [1805005-33](#) Sampled: [May-01-18 07:38](#) Matrix: [Water](#)

Sample Name: [C7 equip](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 07:38	pH = 2
Anions by IC	28	May-29-18 07:38	pH = 4
Metals ICP-AES (w)	180	Oct-28-18 07:38	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 07:38	pH = 2
Solids, TDS	7	May-08-18 07:38	pH = 4
TKN DA	28	May-29-18 07:38	pH = 2
TOC	28	May-29-18 07:38	pH = 2
Total Phosphorus DA	28	May-29-18 07:38	pH = 2

Sample ID: [1805005-34](#) Sampled: [May-01-18 08:02](#) Matrix: [Water](#)

Sample Name: [C7 Dup](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 08:02	pH = 2
Anions by IC	28	May-29-18 08:02	pH = 5

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-34](#) Sampled: [May-01-18 08:02](#) Matrix: [Water](#)

Sample Name: [C7 Dup](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-28-18 08:02	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 08:02	pH = 2
Solids, TDS	7	May-08-18 08:02	pH = 5
TKN DA	28	May-29-18 08:02	pH = 2
TOC	28	May-29-18 08:02	pH = 2
Total Phosphorus DA	28	May-29-18 08:02	pH = 2

Sample ID: [1805005-35](#) Sampled: [May-01-18 08:35](#) Matrix: [Water](#)

Sample Name: [C8a](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 08:35	pH = 2
Anions by IC	28	May-29-18 08:35	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 08:35	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 08:35	pH = 2
Solids, TDS	7	May-08-18 08:35	pH = 5
TKN DA	28	May-29-18 08:35	pH = 2
TOC	28	May-29-18 08:35	pH = 2
Total Phosphorus DA	28	May-29-18 08:35	pH = 2

Sample ID: [1805005-36](#) Sampled: [May-01-18 08:42](#) Matrix: [Water](#)

Sample Name: [C8b](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 08:42	pH = 2
Anions by IC	28	May-29-18 08:42	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 08:42	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 08:42	pH = 2
Solids, TDS	7	May-08-18 08:42	pH = 5
TKN DA	28	May-29-18 08:42	pH = 2
TOC	28	May-29-18 08:42	pH = 2
Total Phosphorus DA	28	May-29-18 08:42	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-37](#) Sampled: [May-01-18 10:00](#) Matrix: [Water](#)

Sample Name: [C9a](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 10:00	pH = 2
Anions by IC	28	May-29-18 10:00	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 10:00	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 10:00	pH = 2
Solids, TDS	7	May-08-18 10:00	pH = 5
TKN DA	28	May-29-18 10:00	pH = 2
TOC	28	May-29-18 10:00	pH = 2
Total Phosphorus DA	28	May-29-18 10:00	pH = 2

Sample ID: [1805005-38](#) Sampled: [May-01-18 10:21](#) Matrix: [Water](#)

Sample Name: [C9b](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 10:21	pH = 2
Anions by IC	28	May-29-18 10:21	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 10:21	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 10:21	pH = 2
Solids, TDS	7	May-08-18 10:21	pH = 5
TKN DA	28	May-29-18 10:21	pH = 2
TOC	28	May-29-18 10:21	pH = 2
Total Phosphorus DA	28	May-29-18 10:21	pH = 2

Sample ID: [1805005-39](#) Sampled: [May-01-18 11:05](#) Matrix: [Water](#)

Sample Name: [C10a](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 11:05	pH = 2
Anions by IC	28	May-29-18 11:05	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 11:05	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 11:05	pH = 2
Solids, TDS	7	May-08-18 11:05	pH = 6
TKN DA	28	May-29-18 11:05	pH = 2
TOC	28	May-29-18 11:05	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-39](#) Sampled: [May-01-18 11:05](#) Matrix: [Water](#)

Sample Name: [C10a](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-29-18 11:05	pH = 2

Sample ID: [1805005-40](#) Sampled: [May-01-18 11:12](#) Matrix: [Water](#)

Sample Name: [C10b](#) Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 11:12	pH = 2
Anions by IC	28	May-29-18 11:12	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 11:12	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 11:12	pH = 2
Solids, TDS	7	May-08-18 11:12	pH = 5
TKN DA	28	May-29-18 11:12	pH = 2
TOC	28	May-29-18 11:12	pH = 2
Total Phosphorus DA	28	May-29-18 11:12	pH = 2

Sample ID: [1805005-41](#) Sampled: [May-01-18 11:46](#) Matrix: [Water](#)

Sample Name: [C11a](#) Sample Location/Comments: [20th Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 11:46	pH = 3
Anions by IC	28	May-29-18 11:46	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 11:46	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 11:46	pH = 3
Solids, TDS	7	May-08-18 11:46	pH = 6
TKN DA	28	May-29-18 11:46	pH = 3
TOC	28	May-29-18 11:46	pH = 3
Total Phosphorus DA	28	May-29-18 11:46	pH = 3

Sample ID: [1805005-42](#) Sampled: [May-01-18 11:52](#) Matrix: [Water](#)

Sample Name: [C11b](#) Sample Location/Comments: [20th Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 11:52	pH = 2
Anions by IC	28	May-29-18 11:52	pH = 5

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-42](#) Sampled: [May-01-18 11:52](#) Matrix: [Water](#)

Sample Name: [C11b](#) Sample Location/Comments: [20th Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-28-18 11:52	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 11:52	pH = 2
Solids, TDS	7	May-08-18 11:52	pH = 5
TKN DA	28	May-29-18 11:52	pH = 2
TOC	28	May-29-18 11:52	pH = 2
Total Phosphorus DA	28	May-29-18 11:52	pH = 2

Sample ID: [1805005-43](#) Sampled: [May-01-18 12:41](#) Matrix: [Water](#)

Sample Name: [C12a](#) Sample Location/Comments: [19th Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 12:41	pH = 2
Anions by IC	28	May-29-18 12:41	pH = 7
Metals ICP-AES (w)	180	Oct-28-18 12:41	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 12:41	pH = 2
Solids, TDS	7	May-08-18 12:41	pH = 7
TKN DA	28	May-29-18 12:41	pH = 2
TOC	28	May-29-18 12:41	pH = 2
Total Phosphorus DA	28	May-29-18 12:41	pH = 2

Sample ID: [1805005-44](#) Sampled: [May-01-18 12:47](#) Matrix: [Water](#)

Sample Name: [C12b](#) Sample Location/Comments: [19th Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 12:47	pH = 2
Anions by IC	28	May-29-18 12:47	pH = 7
Metals ICP-AES (w)	180	Oct-28-18 12:47	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 12:47	pH = 2
Solids, TDS	7	May-08-18 12:47	pH = 7
TKN DA	28	May-29-18 12:47	pH = 2
TOC	28	May-29-18 12:47	pH = 2
Total Phosphorus DA	28	May-29-18 12:47	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-45](#) Sampled: [May-01-18 13:30](#) Matrix: [Water](#)

Sample Name: [C13a](#)

Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 13:30	pH = 3
Anions by IC	28	May-29-18 13:30	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 13:30	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 13:30	pH = 3
Solids, TDS	7	May-08-18 13:30	pH = 6
TKN DA	28	May-29-18 13:30	pH = 3
TOC	28	May-29-18 13:30	pH = 3
Total Phosphorus DA	28	May-29-18 13:30	pH = 3

Sample ID: [1805005-46](#) Sampled: [May-01-18 13:39](#) Matrix: [Water](#)

Sample Name: [C13b](#)

Sample Location/Comments: [4th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 13:39	pH = 2
Anions by IC	28	May-29-18 13:39	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 13:39	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 13:39	pH = 2
Solids, TDS	7	May-08-18 13:39	pH = 5
TKN DA	28	May-29-18 13:39	pH = 2
TOC	28	May-29-18 13:39	pH = 2
Total Phosphorus DA	28	May-29-18 13:39	pH = 2

Sample ID: [1805005-47](#) Sampled: [May-01-18 14:19](#) Matrix: [Water](#)

Sample Name: [D1a](#)

Sample Location/Comments: [5th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 14:19	pH = 2
Anions by IC	28	May-29-18 14:19	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 14:19	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 14:19	pH = 2
Solids, TDS	7	May-08-18 14:19	pH = 6
TKN DA	28	May-29-18 14:19	pH = 2
TOC	28	May-29-18 14:19	pH = 2

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-47](#) Sampled: [May-01-18 14:19](#) Matrix: [Water](#)

Sample Name: [D1a](#) Sample Location/Comments: [5th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-29-18 14:19	pH = 2

Sample ID: [1805005-48](#) Sampled: [May-01-18 14:26](#) Matrix: [Water](#)

Sample Name: [D1b](#) Sample Location/Comments: [5th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 14:26	pH = 3
Anions by IC	28	May-29-18 14:26	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 14:26	pH = 3
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 14:26	pH = 3
Solids, TDS	7	May-08-18 14:26	pH = 5
TKN DA	28	May-29-18 14:26	pH = 3
TOC	28	May-29-18 14:26	pH = 3
Total Phosphorus DA	28	May-29-18 14:26	pH = 3

Sample ID: [1805005-49](#) Sampled: [May-01-18 15:00](#) Matrix: [Water](#)

Sample Name: [D2a](#) Sample Location/Comments: [5th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 15:00	pH = 3
Anions by IC	28	May-29-18 15:00	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 15:00	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 15:00	pH = 3
Solids, TDS	7	May-08-18 15:00	pH = 6
TKN DA	28	May-29-18 15:00	pH = 3
TOC	28	May-29-18 15:00	pH = 3
Total Phosphorus DA	28	May-29-18 15:00	pH = 3

Sample ID: [1805005-50](#) Sampled: [May-01-18 15:06](#) Matrix: [Water](#)

Sample Name: [D2b](#) Sample Location/Comments: [5th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 15:06	pH = 2
Anions by IC	28	May-29-18 15:06	pH = 6

1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: [1805005-50](#) Sampled: [May-01-18 15:06](#) Matrix: [Water](#)

Sample Name: [D2b](#) Sample Location/Comments: [5th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-28-18 15:06	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 15:06	pH = 2
Solids, TDS	7	May-08-18 15:06	pH = 6
TKN DA	28	May-29-18 15:06	pH = 2
TOC	28	May-29-18 15:06	pH = 2
Total Phosphorus DA	28	May-29-18 15:06	pH = 2

Sample ID: [1805005-51](#) Sampled: [May-01-18 15:41](#) Matrix: [Water](#)

Sample Name: [D3a](#) Sample Location/Comments: [5th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 15:41	pH = 2
Anions by IC	28	May-29-18 15:41	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 15:41	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 15:41	pH = 2
Solids, TDS	7	May-08-18 15:41	pH = 6
TKN DA	28	May-29-18 15:41	pH = 2
TOC	28	May-29-18 15:41	pH = 2
Total Phosphorus DA	28	May-29-18 15:41	pH = 2

Sample ID: [1805005-52](#) Sampled: [May-01-18 15:48](#) Matrix: [Water](#)

Sample Name: [D3b](#) Sample Location/Comments: [5th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 15:48	pH = 2
Anions by IC	28	May-29-18 15:48	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 15:48	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 15:48	pH = 2
Solids, TDS	7	May-08-18 15:48	pH = 5
TKN DA	28	May-29-18 15:48	pH = 2
TOC	28	May-29-18 15:48	pH = 2
Total Phosphorus DA	28	May-29-18 15:48	pH = 2



1805005

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: [none]

Sample ID: 1805005-53 Sampled: May-01-18 16:19 Matrix: Water

Sample Name: D4a Sample Location/Comments: 5th Street

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 16:19	pH = 2
Anions by IC	28	May-29-18 16:19	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 16:19	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 16:19	pH = 2
Solids, TDS	7	May-08-18 16:19	pH = 6
TKN DA	28	May-29-18 16:19	pH = 2
TOC	28	May-29-18 16:19	pH = 2
Total Phosphorus DA	28	May-29-18 16:19	pH = 2

Sample ID: 1805005-54 Sampled: May-01-18 16:26 Matrix: Water

Sample Name: D4b Sample Location/Comments: 5th Street

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 16:26	pH = 2
Anions by IC	28	May-29-18 16:26	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 16:26	pH = 3
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 16:26	pH = 2
Solids, TDS	7	May-08-18 16:26	pH = 5
TKN DA	28	May-29-18 16:26	pH = 2
TOC	28	May-29-18 16:26	pH = 2
Total Phosphorus DA	28	May-29-18 16:26	pH = 2

WORK ORDER MEMO: NCR 14118

PROJECT COMMENTS: Anions: Chloride, fluoride, bromide, sulfate.  
Full List metals

**REVIEWED**

By Amanda Wroble at 3:35 pm, May 03, 2018

Reviewed By

Date



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

**WORK ORDER**

Printed: 5/7/2018 9:53:28AM

**1805007**

**US EPA Region 5 Chicago Regional Laboratory**

**Client:** Water Division, WECA Region 5  
**Project:** Central Sands

**Project Manager:** Angela Ockrassa Davis  
**Project Number:** CB022018

**Report To:**

Cheryl Burdett  
Water Division, WECA Region 5

77 West Jackson Boulevard  
Chicago, IL 60604

Phone: (312) 886-1463  
Fax: (312) 886-2001

Date Due: Jun-04-18 15:00 (30 day TAT)

Received By: Robert Snyder

Logged In By: Robert Snyder

Date Received: May-04-18 10:00

Date Logged In: May-07-18 07:38

**Samples Received at:**

Sample tags/labels **Yes**  
Seals Intact **Yes**  
Received on ice **Yes**  
Paperwork Included **Yes**

**Work Order Comments:**

Copy/Relog from 1805005. Anions: Chloride and nitrate as NO3  
Full List metals  
pH paper used in SC 16H2601

**Sample ID:** 1805007-01 **Sampled:** May-02-18 06:38 **Matrix:** Water

**Sample Name:** D5a **Sample Location/Comments:** 5th Street

**Sample Comments:**

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 06:38	pH = 1
Anions by IC	28	May-30-18 06:38	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 06:38	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 06:38	pH = 1
Solids, TDS	7	May-09-18 06:38	pH = 6
TKN DA	28	May-30-18 06:38	pH = 1
TOC	28	May-30-18 06:38	pH = 1
Total Phosphorus DA	28	May-30-18 06:38	pH = 1

**Sample ID:** 1805007-02 **Sampled:** May-02-18 06:46 **Matrix:** Water

**Sample Name:** D5b **Sample Location/Comments:** 5th Street

**Sample Comments:**

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 06:46	pH = 1
Anions by IC	28	May-30-18 06:46	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 06:46	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 06:46	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: 1805007-02      Sampled: May-02-18 06:46      Matrix: Water

Sample Name: D5b      Sample Location/Comments: 5th Street

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Solids, TDS	7	May-09-18 06:46	pH = 5
TKN DA	28	May-30-18 06:46	pH = 1
TOC	28	May-30-18 06:46	pH = 1
Total Phosphorus DA	28	May-30-18 06:46	pH = 1

Sample ID: 1805007-03      Sampled: May-02-18 07:17      Matrix: Water

Sample Name: D6a      Sample Location/Comments: 5th Street

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 07:17	pH = 1
Anions by IC	28	May-30-18 07:17	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 07:17	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 07:17	pH = 1
Solids, TDS	7	May-09-18 07:17	pH = 6
TKN DA	28	May-30-18 07:17	pH = 1
TOC	28	May-30-18 07:17	pH = 1
Total Phosphorus DA	28	May-30-18 07:17	pH = 1

Sample ID: 1805007-04      Sampled: May-02-18 07:29      Matrix: Water

Sample Name: D6b      Sample Location/Comments: 5th Street

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 07:29	pH = 1
Anions by IC	28	May-30-18 07:29	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 07:29	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 07:29	pH = 1
Solids, TDS	7	May-09-18 07:29	pH = 6
TKN DA	28	May-30-18 07:29	pH = 1
TOC	28	May-30-18 07:29	pH = 1
Total Phosphorus DA	28	May-30-18 07:29	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-05](#) Sampled: [May-02-18 08:01](#) Matrix: [Water](#)

Sample Name: [D7 equip](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:01	pH = 1
Anions by IC	28	May-30-18 08:01	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 08:01	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:01	pH = 1
Solids, TDS	7	May-09-18 08:01	pH = 5
TKN DA	28	May-30-18 08:01	pH = 1
TOC	28	May-30-18 08:01	pH = 1
Total Phosphorus DA	28	May-30-18 08:01	pH = 1

Sample ID: [1805007-06](#) Sampled: [May-02-18 08:03](#) Matrix: [Water](#)

Sample Name: [FB3](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:03	pH = 1
Anions by IC	28	May-30-18 08:03	pH = 4
Metals ICP-AES (w)	180	Oct-29-18 08:03	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:03	pH = 1
Solids, TDS	7	May-09-18 08:03	pH = 4
TKN DA	28	May-30-18 08:03	pH = 1
TOC	28	May-30-18 08:03	pH = 1
Total Phosphorus DA	28	May-30-18 08:03	pH = 1

Sample ID: [1805007-07](#) Sampled: [May-02-18 08:12](#) Matrix: [Water](#)

Sample Name: [D7a Dup](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:12	pH = 1
Anions by IC	28	May-30-18 08:12	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 08:12	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:12	pH = 1
Solids, TDS	7	May-09-18 08:12	pH = 6
TKN DA	28	May-30-18 08:12	pH = 1
TOC	28	May-30-18 08:12	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-07](#) Sampled: [May-02-18 08:12](#) Matrix: [Water](#)

Sample Name: [D7a Dup](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-30-18 08:12	pH = 1

Sample ID: [1805007-08](#) Sampled: [May-02-18 08:12](#) Matrix: [Water](#)

[QC Source Sample MS/MSD](#)

Sample Name: [D7a](#) Sample Location/Comments: [23rd Avenue](#)

Sample Comments: [MS/MSD](#)

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:12	pH = 1
Anions by IC	28	May-30-18 08:12	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 08:12	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:12	pH = 1
Solids, TDS	7	May-09-18 08:12	pH = 6
TKN DA	28	May-30-18 08:12	pH = 1
TOC	28	May-30-18 08:12	pH = 1
Total Phosphorus DA	28	May-30-18 08:12	pH = 1

Sample ID: [1805007-09](#) Sampled: [May-02-18 08:19](#) Matrix: [Water](#)

Sample Name: [D7b](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:19	pH = 1
Anions by IC	28	May-30-18 08:19	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 08:19	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:19	pH = 1
Solids, TDS	7	May-09-18 08:19	pH = 5
TKN DA	28	May-30-18 08:19	pH = 1
TOC	28	May-30-18 08:19	pH = 1
Total Phosphorus DA	28	May-30-18 08:19	pH = 1

Sample ID: [1805007-10](#) Sampled: [May-02-18 08:55](#) Matrix: [Water](#)

Sample Name: [D8a](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:55	pH = 1
Anions by IC	28	May-30-18 08:55	pH = 6

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-10](#) Sampled: [May-02-18 08:55](#) Matrix: [Water](#)

Sample Name: [D8a](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-29-18 08:55	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:55	pH = 1
Solids, TDS	7	May-09-18 08:55	pH = 6
TKN DA	28	May-30-18 08:55	pH = 1
TOC	28	May-30-18 08:55	pH = 1
Total Phosphorus DA	28	May-30-18 08:55	pH = 1

Sample ID: [1805007-11](#) Sampled: [May-02-18 09:11](#) Matrix: [Water](#)

Sample Name: [D8b](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 09:11	pH = 1
Anions by IC	28	May-30-18 09:11	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 09:11	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 09:11	pH = 1
Solids, TDS	7	May-09-18 09:11	pH = 6
TKN DA	28	May-30-18 09:11	pH = 1
TOC	28	May-30-18 09:11	pH = 1
Total Phosphorus DA	28	May-30-18 09:11	pH = 1

Sample ID: [1805007-12](#) Sampled: [May-02-18 09:45](#) Matrix: [Water](#)

Sample Name: [D9a](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 09:45	pH = 1
Anions by IC	28	May-30-18 09:45	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 09:45	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 09:45	pH = 1
Solids, TDS	7	May-09-18 09:45	pH = 6
TKN DA	28	May-30-18 09:45	pH = 1
TOC	28	May-30-18 09:45	pH = 1
Total Phosphorus DA	28	May-30-18 09:45	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-13](#) Sampled: [May-02-18 09:54](#) Matrix: [Water](#)

Sample Name: [D9b](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 09:54	pH = 1
Anions by IC	28	May-30-18 09:54	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 09:54	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 09:54	pH = 1
Solids, TDS	7	May-09-18 09:54	pH = 6
TKN DA	28	May-30-18 09:54	pH = 1
TOC	28	May-30-18 09:54	pH = 1
Total Phosphorus DA	28	May-30-18 09:54	pH = 1

Sample ID: [1805007-14](#) Sampled: [May-02-18 10:29](#) Matrix: [Water](#)

Sample Name: [D10a](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 10:29	pH = 1
Anions by IC	28	May-30-18 10:29	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 10:29	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 10:29	pH = 1
Solids, TDS	7	May-09-18 10:29	pH = 6
TKN DA	28	May-30-18 10:29	pH = 1
TOC	28	May-30-18 10:29	pH = 1
Total Phosphorus DA	28	May-30-18 10:29	pH = 1

Sample ID: [1805007-15](#) Sampled: [May-02-18 10:29](#) Matrix: [Water](#)

Sample Name: [D10a Dup](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 10:29	pH = 1
Anions by IC	28	May-30-18 10:29	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 10:29	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 10:29	pH = 1
Solids, TDS	7	May-09-18 10:29	pH = 6
TKN DA	28	May-30-18 10:29	pH = 1
TOC	28	May-30-18 10:29	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-15](#) Sampled: [May-02-18 10:29](#) Matrix: [Water](#)

Sample Name: [D10a Dup](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-30-18 10:29	pH = 1

Sample ID: [1805007-16](#) Sampled: [May-02-18 10:41](#) Matrix: [Water](#)

Sample Name: [D10b](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 10:41	pH = 1
Anions by IC	28	May-30-18 10:41	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 10:41	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 10:41	pH = 1
Solids, TDS	7	May-09-18 10:41	pH = 5
TKN DA	28	May-30-18 10:41	pH = 1
TOC	28	May-30-18 10:41	pH = 1
Total Phosphorus DA	28	May-30-18 10:41	pH = 1

Sample ID: [1805007-17](#) Sampled: [May-02-18 10:41](#) Matrix: [Water](#)

Sample Name: [D10b Dup](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 10:41	pH = 1
Anions by IC	28	May-30-18 10:41	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 10:41	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 10:41	pH = 1
Solids, TDS	7	May-09-18 10:41	pH = 5
TKN DA	28	May-30-18 10:41	pH = 1
TOC	28	May-30-18 10:41	pH = 1
Total Phosphorus DA	28	May-30-18 10:41	pH = 1

Sample ID: [1805007-18](#) Sampled: [May-02-18 11:19](#) Matrix: [Water](#)

Sample Name: [D11a](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 11:19	pH = 1
Anions by IC	28	May-30-18 11:19	pH = 6



1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-18](#) Sampled: [May-02-18 11:19](#) Matrix: [Water](#)

Sample Name: [D11a](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-29-18 11:19	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 11:19	pH = 1
Solids, TDS	7	May-09-18 11:19	pH = 6
TKN DA	28	May-30-18 11:19	pH = 1
TOC	28	May-30-18 11:19	pH = 1
Total Phosphorus DA	28	May-30-18 11:19	pH = 1

Sample ID: [1805007-19](#) Sampled: [May-02-18 11:42](#) Matrix: [Water](#)

Sample Name: [D11b](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 11:42	pH = 1
Anions by IC	28	May-30-18 11:42	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 11:42	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 11:42	pH = 1
Solids, TDS	7	May-09-18 11:42	pH = 5
TKN DA	28	May-30-18 11:42	pH = 1
TOC	28	May-30-18 11:42	pH = 1
Total Phosphorus DA	28	May-30-18 11:42	pH = 1

Sample ID: [1805007-20](#) Sampled: [May-02-18 12:41](#) Matrix: [Water](#)

Sample Name: [E1a](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 12:41	pH = 1
Anions by IC	28	May-30-18 12:41	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 12:41	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 12:41	pH = 1
Solids, TDS	7	May-09-18 12:41	pH = 6
TKN DA	28	May-30-18 12:41	pH = 1
TOC	28	May-30-18 12:41	pH = 1
Total Phosphorus DA	28	May-30-18 12:41	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-21](#) Sampled: [May-02-18 12:58](#) Matrix: [Water](#)

Sample Name: [E1b](#) Sample Location/Comments: [23rd Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 12:58	pH = 1
Anions by IC	28	May-30-18 12:58	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 12:58	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 12:58	pH = 1
Solids, TDS	7	May-09-18 12:58	pH = 6
TKN DA	28	May-30-18 12:58	pH = 1
TOC	28	May-30-18 12:58	pH = 1
Total Phosphorus DA	28	May-30-18 12:58	pH = 1

Sample ID: [1805007-22](#) Sampled: [May-02-18 13:28](#) Matrix: [Water](#)

Sample Name: [E2a](#) Sample Location/Comments: [Porter Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 13:28	pH = 1
Anions by IC	28	May-30-18 13:28	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 13:28	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 13:28	pH = 1
Solids, TDS	7	May-09-18 13:28	pH = 6
TKN DA	28	May-30-18 13:28	pH = 1
TOC	28	May-30-18 13:28	pH = 1
Total Phosphorus DA	28	May-30-18 13:28	pH = 1

Sample ID: [1805007-23](#) Sampled: [May-02-18 13:37](#) Matrix: [Water](#)

Sample Name: [E2b](#) Sample Location/Comments: [Porter Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 13:37	pH = 1
Anions by IC	28	May-30-18 13:37	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 13:37	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 13:37	pH = 1
Solids, TDS	7	May-09-18 13:37	pH = 5
TKN DA	28	May-30-18 13:37	pH = 1
TOC	28	May-30-18 13:37	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-23](#) Sampled: [May-02-18 13:37](#) Matrix: [Water](#)

Sample Name: [E2b](#) Sample Location/Comments: [Porter Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-30-18 13:37	pH = 1

Sample ID: [1805007-24](#) Sampled: [May-02-18 13:28](#) Matrix: [Water](#)

Sample Name: [E2a Dup](#) Sample Location/Comments: [Porter Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 13:28	pH = 1
Anions by IC	28	May-30-18 13:28	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 13:28	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 13:28	pH = 1
Solids, TDS	7	May-09-18 13:28	pH = 6
TKN DA	28	May-30-18 13:28	pH = 1
TOC	28	May-30-18 13:28	pH = 1
Total Phosphorus DA	28	May-30-18 13:28	pH = 1

Sample ID: [1805007-25](#) Sampled: [May-02-18 13:37](#) Matrix: [Water](#)

Sample Name: [E2b Dup](#) Sample Location/Comments: [Porter Road](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 13:37	pH = 1
Anions by IC	28	May-30-18 13:37	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 13:37	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 13:37	pH = 1
Solids, TDS	7	May-09-18 13:37	pH = 5
TKN DA	28	May-30-18 13:37	pH = 1
TOC	28	May-30-18 13:37	pH = 1
Total Phosphorus DA	28	May-30-18 13:37	pH = 1

Sample ID: [1805007-26](#) Sampled: [May-02-18 14:03](#) Matrix: [Water](#)

Sample Name: [E3a](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 14:03	pH = 1
Anions by IC	28	May-30-18 14:03	pH = 6

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-26](#) Sampled: [May-02-18 14:03](#) Matrix: [Water](#)

Sample Name: [E3a](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-29-18 14:03	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 14:03	pH = 1
Solids, TDS	7	May-09-18 14:03	pH = 6
TKN DA	28	May-30-18 14:03	pH = 1
TOC	28	May-30-18 14:03	pH = 1
Total Phosphorus DA	28	May-30-18 14:03	pH = 1

Sample ID: [1805007-27](#) Sampled: [May-02-18 14:09](#) Matrix: [Water](#)

Sample Name: [E3b](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 14:09	pH = 1
Anions by IC	28	May-30-18 14:09	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 14:09	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 14:09	pH = 1
Solids, TDS	7	May-09-18 14:09	pH = 6
TKN DA	28	May-30-18 14:09	pH = 1
TOC	28	May-30-18 14:09	pH = 1
Total Phosphorus DA	28	May-30-18 14:09	pH = 1

Sample ID: [1805007-28](#) Sampled: [May-02-18 14:37](#) Matrix: [Water](#)

Sample Name: [E4a](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 14:37	pH = 1
Anions by IC	28	May-30-18 14:37	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 14:37	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 14:37	pH = 1
Solids, TDS	7	May-09-18 14:37	pH = 6
TKN DA	28	May-30-18 14:37	pH = 1
TOC	28	May-30-18 14:37	pH = 1
Total Phosphorus DA	28	May-30-18 14:37	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-29](#) Sampled: [May-02-18 14:43](#) Matrix: [Water](#)

Sample Name: [E4b](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 14:43	pH = 1
Anions by IC	28	May-30-18 14:43	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 14:43	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 14:43	pH = 1
Solids, TDS	7	May-09-18 14:43	pH = 6
TKN DA	28	May-30-18 14:43	pH = 1
TOC	28	May-30-18 14:43	pH = 1
Total Phosphorus DA	28	May-30-18 14:43	pH = 1

Sample ID: [1805007-30](#) Sampled: [May-02-18 15:08](#) Matrix: [Water](#)

Sample Name: [E5a](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 15:08	pH = 1
Anions by IC	28	May-30-18 15:08	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 15:08	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 15:08	pH = 1
Solids, TDS	7	May-09-18 15:08	pH = 6
TKN DA	28	May-30-18 15:08	pH = 1
TOC	28	May-30-18 15:08	pH = 1
Total Phosphorus DA	28	May-30-18 15:08	pH = 1

Sample ID: [1805007-31](#) Sampled: [May-02-18 15:13](#) Matrix: [Water](#)

Sample Name: [E5b](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 15:13	pH = 1
Anions by IC	28	May-30-18 15:13	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 15:13	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 15:13	pH = 1
Solids, TDS	7	May-09-18 15:13	pH = 6
TKN DA	28	May-30-18 15:13	pH = 1
TOC	28	May-30-18 15:13	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-31](#) Sampled: [May-02-18 15:13](#) Matrix: [Water](#)

Sample Name: [E5b](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-30-18 15:13	pH = 1

Sample ID: [1805007-32](#) Sampled: [May-02-18 15:38](#) Matrix: [Water](#)

Sample Name: [E6a](#) Sample Location/Comments: [20th Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 15:38	pH = 1
Anions by IC	28	May-30-18 15:38	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 15:38	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 15:38	pH = 1
Solids, TDS	7	May-09-18 15:38	pH = 6
TKN DA	28	May-30-18 15:38	pH = 1
TOC	28	May-30-18 15:38	pH = 1
Total Phosphorus DA	28	May-30-18 15:38	pH = 1

Sample ID: [1805007-33](#) Sampled: [May-02-18 15:44](#) Matrix: [Water](#)

Sample Name: [E6b](#) Sample Location/Comments: [20th Avenue](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 15:44	pH = 1
Anions by IC	28	May-30-18 15:44	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 15:44	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 15:44	pH = 1
Solids, TDS	7	May-09-18 15:44	pH = 6
TKN DA	28	May-30-18 15:44	pH = 1
TOC	28	May-30-18 15:44	pH = 1
Total Phosphorus DA	28	May-30-18 15:44	pH = 1

Sample ID: [1805007-34](#) Sampled: [May-02-18 16:09](#) Matrix: [Water](#)

Sample Name: [E7a](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 16:09	pH = 1
Anions by IC	28	May-30-18 16:09	pH = 5

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-34](#) Sampled: [May-02-18 16:09](#) Matrix: [Water](#)

Sample Name: [E7a](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-29-18 16:09	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 16:09	pH = 1
Solids, TDS	7	May-09-18 16:09	pH = 5
TKN DA	28	May-30-18 16:09	pH = 1
TOC	28	May-30-18 16:09	pH = 1
Total Phosphorus DA	28	May-30-18 16:09	pH = 1

Sample ID: [1805007-35](#) Sampled: [May-02-18 16:35](#) Matrix: [Water](#)

Sample Name: [E7b](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 16:35	pH = 1
Anions by IC	28	May-30-18 16:35	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 16:35	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 16:35	pH = 1
Solids, TDS	7	May-09-18 16:35	pH = 5
TKN DA	28	May-30-18 16:35	pH = 1
TOC	28	May-30-18 16:35	pH = 1
Total Phosphorus DA	28	May-30-18 16:35	pH = 1

Sample ID: [1805007-36](#) Sampled: [May-03-18 08:40](#) Matrix: [Water](#)

Sample Name: [E8a](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 08:40	pH = 1
Anions by IC	28	May-31-18 08:40	pH = 5
Metals ICP-AES (w)	180	Oct-30-18 08:40	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 08:40	pH = 1
Solids, TDS	7	May-10-18 08:40	pH = 5
TKN DA	28	May-31-18 08:40	pH = 1
TOC	28	May-31-18 08:40	pH = 1
Total Phosphorus DA	28	May-31-18 08:40	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-37](#)      Sampled: [May-03-18 08:48](#)      Matrix: [Water](#)

Sample Name: [E8b](#)      Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 08:48	pH = 1
Anions by IC	28	May-31-18 08:48	pH = 6
Metals ICP-AES (w)	180	Oct-30-18 08:48	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 08:48	pH = 1
Solids, TDS	7	May-10-18 08:48	pH = 6
TKN DA	28	May-31-18 08:48	pH = 1
TOC	28	May-31-18 08:48	pH = 1
Total Phosphorus DA	28	May-31-18 08:48	pH = 1

Sample ID: [1805007-38](#)      Sampled: [May-03-18 07:15](#)      Matrix: [Water](#)

Sample Name: [E10a](#)      Sample Location/Comments: [8th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 07:15	pH = 1
Anions by IC	28	May-31-18 07:15	pH = 6
Metals ICP-AES (w)	180	Oct-30-18 07:15	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 07:15	pH = 1
Solids, TDS	7	May-10-18 07:15	pH = 6
TKN DA	28	May-31-18 07:15	pH = 1
TOC	28	May-31-18 07:15	pH = 1
Total Phosphorus DA	28	May-31-18 07:15	pH = 1

Sample ID: [1805007-39](#)      Sampled: [May-03-18 07:15](#)      Matrix: [Water](#)

Sample Name: [E10a Dup](#)      Sample Location/Comments: [8th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 07:15	pH = 1
Anions by IC	28	May-31-18 07:15	pH = 6
Metals ICP-AES (w)	180	Oct-30-18 07:15	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 07:15	pH = 1
Solids, TDS	7	May-10-18 07:15	pH = 6
TKN DA	28	May-31-18 07:15	pH = 1
TOC	28	May-31-18 07:15	pH = 1



1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-39](#) Sampled: [May-03-18 07:15](#) Matrix: [Water](#)

Sample Name: [E10a Dup](#) Sample Location/Comments: [8th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-31-18 07:15	pH = 1

Sample ID: [1805007-40](#) Sampled: [May-03-18 07:27](#) Matrix: [Water](#)

Sample Name: [E10b](#) Sample Location/Comments: [8th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 07:27	pH = 1
Anions by IC	28	May-31-18 07:27	pH = 6
Metals ICP-AES (w)	180	Oct-30-18 07:27	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 07:27	pH = 1
Solids, TDS	7	May-10-18 07:27	pH = 6
TKN DA	28	May-31-18 07:27	pH = 1
TOC	28	May-31-18 07:27	pH = 1
Total Phosphorus DA	28	May-31-18 07:27	pH = 1

Sample ID: [1805007-41](#) Sampled: [May-03-18 07:36](#) Matrix: [Water](#)

Sample Name: [FB4](#) Sample Location/Comments: [8th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 07:36	pH = 1
Anions by IC	28	May-31-18 07:36	pH = 4
Metals ICP-AES (w)	180	Oct-30-18 07:36	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 07:36	pH = 1
Solids, TDS	7	May-10-18 07:36	pH = 4
TKN DA	28	May-31-18 07:36	pH = 1
TOC	28	May-31-18 07:36	pH = 1
Total Phosphorus DA	28	May-31-18 07:36	pH = 1

Sample ID: [1805007-42](#) Sampled: [May-03-18 07:13](#) Matrix: [Water](#)

Sample Name: [E10 Equip](#) Sample Location/Comments: [8th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 07:13	pH = 1
Anions by IC	28	May-31-18 07:13	pH = 4

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

Sample ID: [1805007-42](#) Sampled: [May-03-18 07:13](#) Matrix: [Water](#)

Sample Name: [E10 Equip](#) Sample Location/Comments: [8th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-30-18 07:13	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 07:13	pH = 1
Solids, TDS	7	May-10-18 07:13	pH = 4
TKN DA	28	May-31-18 07:13	pH = 1
TOC	28	May-31-18 07:13	pH = 1
Total Phosphorus DA	28	May-31-18 07:13	pH = 1

Sample ID: [1805007-43](#) Sampled: [May-03-18 09:53](#) Matrix: [Water](#)

Sample Name: [E9a](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 09:53	pH = 1
Anions by IC	28	May-31-18 09:53	pH = 5
Metals ICP-AES (w)	180	Oct-30-18 09:53	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 09:53	pH = 1
Solids, TDS	7	May-10-18 09:53	pH = 5
TKN DA	28	May-31-18 09:53	pH = 1
TOC	28	May-31-18 09:53	pH = 1
Total Phosphorus DA	28	May-31-18 09:53	pH = 1

Sample ID: [1805007-44](#) Sampled: [May-03-18 10:02](#) Matrix: [Water](#)

Sample Name: [E9b](#) Sample Location/Comments: [7th Street](#)

## Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 10:02	pH = 1
Anions by IC	28	May-31-18 10:02	pH = 5
Metals ICP-AES (w)	180	Oct-30-18 10:02	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 10:02	pH = 1
Solids, TDS	7	May-10-18 10:02	pH = 5
TKN DA	28	May-31-18 10:02	pH = 1
TOC	28	May-31-18 10:02	pH = 1
Total Phosphorus DA	28	May-31-18 10:02	pH = 1

1805007

## US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5  
Project: Central Sands

Project Manager: Angela Ockrassa Davis  
Project Number: CB022018

PROJECT COMMENTS: Anions: Chloride, fluoride, bromide, sulfate.  
Full List metals

**REVIEWED***By Robert Thompson at 9:54 am, May 07, 2018*

Reviewed By

Date



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, WECA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Central Sands  
Project Number: CB022018  
Project Manager: Cheryl Burdett

**Reported:**  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**A1a (1805005-01) Matrix: Water Sampled: Apr-30-18 07:19 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	3		1	2	mg/L	1	B18E033	May-14-18	May-15-18

**A1b (1805005-02) Matrix: Water Sampled: Apr-30-18 07:32 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	2		1	2	mg/L	1	B18E033	May-14-18	May-15-18

**A2a (1805005-03) Matrix: Water Sampled: Apr-30-18 08:15 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	5		1	2	mg/L	1	B18E033	May-14-18	May-15-18

**A2b (1805005-04) Matrix: Water Sampled: Apr-30-18 08:24 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	4		1	2	mg/L	1	B18E033	May-14-18	May-15-18

**A3a (1805005-05) Matrix: Water Sampled: Apr-30-18 09:06 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	2		1	2	mg/L	1	B18E033	May-14-18	May-15-18

**A3b (1805005-06) Matrix: Water Sampled: Apr-30-18 09:14 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	4		1	2	mg/L	1	B18E033	May-14-18	May-15-18

**A4 Equip (1805005-07) Matrix: Water Sampled: Apr-30-18 09:38 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	U		1	2	mg/L	1	B18E033	May-14-18	May-15-18

**A3a (Dup) (1805005-08) Matrix: Water Sampled: Apr-30-18 09:06 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	2		1	2	mg/L	1	B18E033	May-14-18	May-15-18



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, WECA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Central Sands  
Project Number: CB022018  
Project Manager: Cheryl Burdett

**Reported:**  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**FB1 (1805005-09)**

**Matrix: Water**

**Sampled: Apr-30-18 09:49**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	U		1	2	mg/L	1	B18E033	May-14-18	May-15-18

**A4a (1805005-10)**

**Matrix: Water**

**Sampled: Apr-30-18 09:58**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	U		1	2	mg/L	1	B18E033	May-14-18	May-15-18

**A4b (1805005-11)**

**Matrix: Water**

**Sampled: Apr-30-18 10:09**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	4		1	2	mg/L	1	B18E033	May-14-18	May-15-18

**B1a (1805005-12)**

**Matrix: Water**

**Sampled: Apr-30-18 10:51**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	2	J	1	2	mg/L	1	B18E033	May-14-18	May-15-18

**B1b (1805005-13)**

**Matrix: Water**

**Sampled: Apr-30-18 10:58**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	2		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**B2a (1805005-14)**

**Matrix: Water**

**Sampled: Apr-30-18 11:40**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	2		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**B2b (1805005-15)**

**Matrix: Water**

**Sampled: Apr-30-18 11:48**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	3		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**B3a (1805005-16)**

**Matrix: Water**

**Sampled: Apr-30-18 12:29**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	U		1	2	mg/L	1	B18E033	May-14-18	May-16-18



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**Reported:**  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**B3b (1805005-17)**

**Matrix: Water**

**Sampled: Apr-30-18 12:36**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>5</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**B4a (1805005-18)**

**Matrix: Water**

**Sampled: Apr-30-18 13:10**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**B4b (1805005-19)**

**Matrix: Water**

**Sampled: Apr-30-18 13:41**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>5</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C1a (1805005-20)**

**Matrix: Water**

**Sampled: Apr-30-18 15:02**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C1b (1805005-21)**

**Matrix: Water**

**Sampled: Apr-30-18 15:27**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C2a (1805005-22)**

**Matrix: Water**

**Sampled: Apr-30-18 16:06**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C2b (1805005-23)**

**Matrix: Water**

**Sampled: Apr-30-18 16:14**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C3a (1805005-24)**

**Matrix: Water**

**Sampled: Apr-30-18 14:16**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18



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**Reported:**  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**C3b (1805005-25)**

**Matrix: Water**

**Sampled: Apr-30-18 14:26**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>3</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C5Aa (1805005-26)**

**Matrix: Water**

**Sampled: May-01-18 06:29**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>2</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C5Ab (1805005-27)**

**Matrix: Water**

**Sampled: May-01-18 06:43**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>3</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C6a (1805005-28)**

**Matrix: Water**

**Sampled: May-01-18 07:06**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C6b (1805005-29)**

**Matrix: Water**

**Sampled: May-01-18 07:15**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>2</b>	J	1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C7a (1805005-30)**

**Matrix: Water**

**Sampled: May-01-18 07:48**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C7b (1805005-31)**

**Matrix: Water**

**Sampled: May-01-18 08:02**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>2</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**FB2 (1805005-32)**

**Matrix: Water**

**Sampled: May-01-18 07:39**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18



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**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**C7 equip (1805005-33)**

**Matrix: Water      Sampled: May-01-18 07:38      Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C7b Dup (1805005-34)**

**Matrix: Water      Sampled: May-01-18 08:02      Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>2</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C8a (1805005-35)**

**Matrix: Water      Sampled: May-01-18 08:35      Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C8b (1805005-36)**

**Matrix: Water      Sampled: May-01-18 08:42      Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C9a (1805005-37)**

**Matrix: Water      Sampled: May-01-18 10:00      Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>2</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C9b (1805005-38)**

**Matrix: Water      Sampled: May-01-18 10:21      Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>2</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C10a (1805005-39)**

**Matrix: Water      Sampled: May-01-18 11:05      Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C10b (1805005-40)**

**Matrix: Water      Sampled: May-01-18 11:12      Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E033	May-14-18	May-21-18





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**Reported:**  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**C11a (1805005-41) Matrix: Water Sampled: May-01-18 11:46 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	3	J	1	2	mg/L	1	B18E033	May-14-18	May-21-18

**C11b (1805005-42) Matrix: Water Sampled: May-01-18 11:52 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	U		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C12a (1805005-43) Matrix: Water Sampled: May-01-18 12:41 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	9		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C12b (1805005-44) Matrix: Water Sampled: May-01-18 12:47 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	11		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C13a (1805005-45) Matrix: Water Sampled: May-01-18 13:30 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	5	J	1	2	mg/L	1	B18E033	May-14-18	May-16-18

**C13b (1805005-46) Matrix: Water Sampled: May-01-18 13:39 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	3		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**D1a (1805005-47) Matrix: Water Sampled: May-01-18 14:19 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	6		1	2	mg/L	1	B18E033	May-14-18	May-16-18

**D1b (1805005-48) Matrix: Water Sampled: May-01-18 14:26 Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Organic Carbon	3	J	1	2	mg/L	1	B18E033	May-14-18	May-16-18



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**Reported:**  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**D2a (1805005-49)**

**Matrix: Water**

**Sampled: May-01-18 15:00**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>2</b>	<b>J</b>	<b>1</b>	<b>2</b>	mg/L	1	B18E033	May-14-18	May-16-18

**D2b (1805005-50)**

**Matrix: Water**

**Sampled: May-01-18 15:06**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>2</b>		<b>1</b>	<b>2</b>	mg/L	1	B18E033	May-14-18	May-16-18

**D3a (1805005-51)**

**Matrix: Water**

**Sampled: May-01-18 15:41**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	1	B18E033	May-14-18	May-17-18

**D3b (1805005-52)**

**Matrix: Water**

**Sampled: May-01-18 15:48**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	1	B18E033	May-14-18	May-17-18

**D4a (1805005-53)**

**Matrix: Water**

**Sampled: May-01-18 16:19**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	1	B18E033	May-14-18	May-17-18

**D4b (1805005-54)**

**Matrix: Water**

**Sampled: May-01-18 16:26**

**Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>3</b>		<b>1</b>	<b>2</b>	mg/L	1	B18E033	May-14-18	May-17-18

**D5a (1805007-01)**

**Matrix: Water**

**Sampled: May-02-18 06:38**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	1	B18E047	May-16-18	May-17-18

**D5b (1805007-02)**

**Matrix: Water**

**Sampled: May-02-18 06:46**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	1	B18E047	May-16-18	May-17-18



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**US EPA Region 5 Chicago Regional Laboratory**

**D6a (1805007-03)**

**Matrix: Water**

**Sampled: May-02-18 07:17**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**D6b (1805007-04)**

**Matrix: Water**

**Sampled: May-02-18 07:29**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**D7 equip (1805007-05)**

**Matrix: Water**

**Sampled: May-02-18 08:01**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**FB3 (1805007-06)**

**Matrix: Water**

**Sampled: May-02-18 08:03**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**D7a Dup (1805007-07)**

**Matrix: Water**

**Sampled: May-02-18 08:12**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**D7a (1805007-08)**

**Matrix: Water**

**Sampled: May-02-18 08:12**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**D7b (1805007-09)**

**Matrix: Water**

**Sampled: May-02-18 08:19**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	2		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**D8a (1805007-10)**

**Matrix: Water**

**Sampled: May-02-18 08:55**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18



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Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**D8b (1805007-11)**

**Matrix: Water**

**Sampled: May-02-18 09:11**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>2</b>		<b>1</b>	<b>2</b>	mg/L	<b>1</b>	B18E047	May-16-18	May-17-18

**D9a (1805007-12)**

**Matrix: Water**

**Sampled: May-02-18 09:45**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	<b>1</b>	B18E047	May-16-18	May-17-18

**D9b (1805007-13)**

**Matrix: Water**

**Sampled: May-02-18 09:54**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>2</b>		<b>1</b>	<b>2</b>	mg/L	<b>1</b>	B18E047	May-16-18	May-17-18

**D10a (1805007-14)**

**Matrix: Water**

**Sampled: May-02-18 10:29**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	<b>1</b>	B18E047	May-16-18	May-17-18

**D10a Dup (1805007-15)**

**Matrix: Water**

**Sampled: May-02-18 10:29**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	<b>1</b>	B18E047	May-16-18	May-17-18

**D10b (1805007-16)**

**Matrix: Water**

**Sampled: May-02-18 10:41**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	<b>1</b>	B18E047	May-16-18	May-17-18

**D10b Dup (1805007-17)**

**Matrix: Water**

**Sampled: May-02-18 10:41**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	<b>1</b>	B18E047	May-16-18	May-17-18

**D11a (1805007-18)**

**Matrix: Water**

**Sampled: May-02-18 11:19**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		<b>1</b>	<b>2</b>	mg/L	<b>1</b>	B18E047	May-16-18	May-17-18



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, WECA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Central Sands  
Project Number: CB022018  
Project Manager: Cheryl Burdett

**Reported:**  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**D11b (1805007-19)**

**Matrix: Water**

**Sampled: May-02-18 11:42**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**E1a (1805007-20)**

**Matrix: Water**

**Sampled: May-02-18 12:41**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**E1b (1805007-21)**

**Matrix: Water**

**Sampled: May-02-18 12:58**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	2		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**E2a (1805007-22)**

**Matrix: Water**

**Sampled: May-02-18 13:28**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**E2b (1805007-23)**

**Matrix: Water**

**Sampled: May-02-18 13:37**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**E2a Dup (1805007-24)**

**Matrix: Water**

**Sampled: May-02-18 13:28**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-17-18

**E2b Dup (1805007-25)**

**Matrix: Water**

**Sampled: May-02-18 13:37**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E3a (1805007-26)**

**Matrix: Water**

**Sampled: May-02-18 14:03**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18



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Chicago IL, 60604

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**Reported:**  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**E3b (1805007-27)**

**Matrix: Water**

**Sampled: May-02-18 14:09**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E4a (1805007-28)**

**Matrix: Water**

**Sampled: May-02-18 14:37**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E4b (1805007-29)**

**Matrix: Water**

**Sampled: May-02-18 14:43**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E5a (1805007-30)**

**Matrix: Water**

**Sampled: May-02-18 15:08**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E5b (1805007-31)**

**Matrix: Water**

**Sampled: May-02-18 15:13**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E6a (1805007-32)**

**Matrix: Water**

**Sampled: May-02-18 15:38**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E6b (1805007-33)**

**Matrix: Water**

**Sampled: May-02-18 15:44**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	2		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E7a (1805007-34)**

**Matrix: Water**

**Sampled: May-02-18 16:09**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18



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Chicago IL, 60604

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**Reported:**  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**E7b (1805007-35)**

**Matrix: Water**

**Sampled: May-02-18 16:35**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E8a (1805007-36)**

**Matrix: Water**

**Sampled: May-03-18 08:40**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E8b (1805007-37)**

**Matrix: Water**

**Sampled: May-03-18 08:48**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	3		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E10a (1805007-38)**

**Matrix: Water**

**Sampled: May-03-18 07:15**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E10a Dup (1805007-39)**

**Matrix: Water**

**Sampled: May-03-18 07:15**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E10b (1805007-40)**

**Matrix: Water**

**Sampled: May-03-18 07:27**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	7		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**FB4 (1805007-41)**

**Matrix: Water**

**Sampled: May-03-18 07:36**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E10 Equip (1805007-42)**

**Matrix: Water**

**Sampled: May-03-18 07:13**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	U		1	2	mg/L	1	B18E047	May-16-18	May-18-18



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**Reported:**  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**E9a (1805007-43)**

**Matrix: Water**

**Sampled: May-03-18 09:53**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>U</b>		1	2	mg/L	1	B18E047	May-16-18	May-18-18

**E9b (1805007-44)**

**Matrix: Water**

**Sampled: May-03-18 10:02**

**Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
<b>Total Organic Carbon</b>	<b>4</b>		1	2	mg/L	1	B18E047	May-16-18	May-18-18





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Reported:  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified) - Quality Control**  
**US EPA Region 5 Chicago Regional Laboratory**

**Batch B18E033 - General Preparation**

**Blank (B18E033-BLK1)**

Prepared: May-14-18 Analyzed: May-15-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	U		1	2	mg/L						

**LCS (B18E033-BS1)**

Prepared: May-14-18 Analyzed: May-15-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	4.98		1	2	mg/L	5.000		99.6%	80.7-123		

**Duplicate (B18E033-DUP1)**

Source: 1805005-05

Prepared: May-14-18 Analyzed: May-15-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	2.04		1	2	mg/L		2.10			3.07	15

**Duplicate (B18E033-DUP2)**

Source: 1805005-21

Prepared: May-14-18 Analyzed: May-16-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	U		1	2	mg/L		U				15

**Duplicate (B18E033-DUP3)**

Source: 1805005-41

Prepared: May-14-18 Analyzed: May-21-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	3.58		1	2	mg/L		3.34			6.86	15

**MRL Check (B18E033-MRL1)**

Prepared: May-14-18 Analyzed: May-15-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	2.12				mg/L	2.000		106%	47-142		

**Matrix Spike (B18E033-MS1)**

Source: 1805005-05

Prepared: May-14-18 Analyzed: May-15-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	6.00	Q	1	2	mg/L	5.000	2.10	77.9%	85.1-143		

**Matrix Spike (B18E033-MS2)**

Source: 1805005-21

Prepared: May-14-18 Analyzed: May-16-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit



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Reported:  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified) - Quality Control**  
**US EPA Region 5 Chicago Regional Laboratory**

**Batch B18E033 - General Preparation**

Matrix Spike (B18E033-MS2)		Source: 1805005-21		Prepared: May-14-18 Analyzed: May-16-18							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	6.01		1	2	mg/L	5.000	U	120%	85.1-143		

Matrix Spike (B18E033-MS3)		Source: 1805005-41		Prepared: May-14-18 Analyzed: May-16-18							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	5.15	Q	1	2	mg/L	5.000	3.34	36.1%	85.1-143		

**Batch B18E047 - General Preparation**

Blank (B18E047-BLK1)		Prepared: May-16-18 Analyzed: May-17-18									
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	U		1	2	mg/L						

LCS (B18E047-BS1)		Prepared: May-16-18 Analyzed: May-17-18									
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	4.81		1	2	mg/L	5.000		96.2%	80.7-123		

Duplicate (B18E047-DUP1)		Source: 1805007-08		Prepared: May-16-18 Analyzed: May-17-18							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	U		1	2	mg/L		U				15

Duplicate (B18E047-DUP2)		Source: 1805007-21		Prepared: May-16-18 Analyzed: May-17-18							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	1.65		1	2	mg/L		1.67			1.14	15

Duplicate (B18E047-DUP3)		Source: 1805007-43		Prepared: May-16-18 Analyzed: May-18-18							
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	1.20		1	2	mg/L		1.17			2.05	15



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Reported:  
Jun-04-18 15:29

**Organic Carbon, Infra-red Combustion, Standard Method 5310 B (modified) - Quality Control**  
**US EPA Region 5 Chicago Regional Laboratory**

**Batch B18E047 - General Preparation**

**MRL Check (B18E047-MRL1)**

Prepared: May-16-18 Analyzed: May-17-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	1.93				mg/L	2.000		96.6%	47-142		

**Matrix Spike (B18E047-MS1)**

Source: 1805007-08

Prepared: May-16-18 Analyzed: May-17-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	5.14		1	2	mg/L	5.000	U	103%	85.1-143		

**Matrix Spike (B18E047-MS2)**

Source: 1805007-21

Prepared: May-16-18 Analyzed: May-17-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	6.35		1	2	mg/L	5.000	1.67	93.8%	85.1-143		

**Matrix Spike (B18E047-MS3)**

Source: 1805007-43

Prepared: May-16-18 Analyzed: May-18-18

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Total Organic Carbon	5.70		1	2	mg/L	5.000	1.17	90.4%	85.1-143		



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Project: Central Sands  
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Project Manager: Cheryl Burdett

**Reported:**  
Jun-04-18 15:29

**Notes and Definitions**

J The identification of the analyte is acceptable; the reported value is an estimate.  
U Not Detected  
NR Not Reported  
Q QC limit Exceeded